

A
PROJECT
ON

“RaagMala”

Submitted to

Shiksha Mandal's
G. S. COLLEGE OF COMMERCE & ECONOMICS, NAGPUR
(AUTONOMOUS)

In the Partial Fulfillment of

B.Com. (Computer Application) Final Year

Submitted by

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Under the Guidance of

Pravin J. Yadao



Shiksha Mandal's
G. S. COLLEGE OF COMMERCE & ECONOMICS, NAGPUR
(AUTONOMOUS)

2021-2022

Shiksha Mandal's
**G. S. COLLEGE OF COMMERCE & ECONOMICS,
NAGPUR
(AUTONOMOUS)**

CERTIFICATE

(2021 - 2022)

This is to certify that Miss Chinmayi Dongre And Miss Harshita Kaithwas have completed their project on the topic of RaagMala prescribed by G. S. College of Commerce & Economics, Nagpur (Autonomous) for B.Com. (Computer Application) – Semester-VI.

Date:

Place: Nagpur

Pravin J. Yadao

Project Guide

External Examiner

Internal Examiner

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We also wish to express our sincere thanks to Principal Dr. N. Y. Khandait for providing us wide range of opportunities, facilities, and inspiration to gather professional knowledge and material without which this project could not have been completed.

Student Names & Signature

Miss Chinmayi Dongre

Miss Harshita Kaithwas

Date:

Place: Nagpur

DECLARATION

We **Miss Chinmayi Dongre and Miss Harshita Kaithwas** hereby honestly declare that the work entitled **“RaagMala”** was submitted by us at G. S. College of Commerce & Economics, Nagpur (Autonomous) in partial fulfillment of the requirement for the award of B.Com. (Computer Application) degree by Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur has not been submitted elsewhere for the award of any degree, during the academic session 2021-2022.

The project has been developed and completed by us independently under the supervision of the subject teacher and project guide.

Student Name & Signature

Miss Chinmayi Dongre

Miss Harshita Kaithwas

Date:

Place: Nagpur

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Introduction

Introduction

Indian classical music is a rich tradition that originated in South Asia and can now be found in all corners of the world. Its origins date back to sacred Vedic scriptures over 6,000 years ago where chants developed a system of musical notes and rhythmic cycles.

In this way, Indian classical music is very closely connected to nature, taking inspiration from natural phenomena including the seasons and times of the day to create 'Ragas' or musical moods and many time cycles or 'Taals' that have been further codified.

Many people love Indian classical music for its meditative, immersive, and uplifting nature. It provides a sense of peace and elation. According to science music treatment is helpful for many kinds of patients to get well soon. Also, different type of music creates a different type of positive impact on living beings. Which can create a positive impact on human health. Different ragas are used by music therapists for treating

patients suffering from mental health issues. Although it is difficult to master, it provides immense fulfillment.

In this project, we have developed an Android-based Application named “RaagMala” to get information about the different ragas, taals, and other musical terminologies in Hindustani Classical Music. This application is useful for vocal and instrumental artists and people who want to learn or get information about Indian Classical music.

This app is developed by keeping user interest in mind and to spread knowledge about Indian Classical Music among the people.

Objectives

Objectives

- **Increase Knowledge:** This application is designed to help people get knowledge and increase people's interest in Indian Classical Music.
- **Provides platform:** This application provides a platform where vocal and instrumental artists people interested in Indian Classical Music can get information on a single platform.
- **Fewer Efforts:** By using this application, users do not need to carry books to get through the Ragas and can have a quick review anytime.
- **Easy to use:** Users can search Ragas in different ways such as "search by Thaata, search by Gayansamaya."
- **Quick Access:** Information other than Ragas i.e information about Taals, and Musical Terminologies is available in this application.
- **Entertainment:** Users can hear songs based on Ragas here.
- **Health Benefits and Music Therapy:** Different health benefits of Raagas are mentioned in the application, so it can be used as a Musical Therapy.
- **Well Designed:** This application is designed in such a way that the user's needs are fulfilled and makes it easy to access, and therefore it makes the users get attracted to the application more.

Preliminary

System

Analysis

Preliminary Investigation

Indian Classical Music is one of the oldest musical cultures in the world. Nowadays a lot of many people around the world are taking interest in learning Indian Classical Music.

Indian classical music is generally passed down in an oral tradition where the student would spend many years with their 'guru', developing a very special, spiritual bond, imbibing all aspects of the music along with philosophical and moral principles that shape them for life.

Now Indian classical music can be learned in many institutions and has been heavily documented and notated but learning through observation, listening and memory is still paramount, and connecting with an expert teacher is considered the most fruitful way to learn.

A lot many people tried to gather this knowledge in books but this vast knowledge is not possible to bind in books and carry these books everywhere and whenever it is required.

Present System in Use

Traditionally Indian Classical Music is learned from Guru but nowadays there are a lot many books are available in the market to get knowledge about Indian Classical Music like Hindustani Sangeet Paddhati written by Pandit Vishnu Narayan Bhatkhande, Sangeet Visharad written by Vasant, Sangeet Shastra Vijayini written by Dr. Narayan Mangarulkar, etc. Other than these books many websites like www.tanarang.com, www.raag-hindustani.com, etc. and android applications like [□□□ □□□□□](#), Raagam, Ragakosh, Indian Classical Raagas, etc are available on PlayStore.

Flaws in Present System

We reviewed the present system which is used to get information about Indian Classical Music. We observed certain problems in the present system.

Knowledge about Indian Classical Music is learned from Guru. But the people dedicated to Indian Classical Music are very few. There are a lot many people who tried to bind this vast knowledge in books but it is difficult to store it in one book. Pandit Vishnu Narayan Bhatkhande tried to bind various Ragas and their bandishes in different sets of books but these books are not handy and difficult to carry everywhere.

Websites like www.tanarag.com and www.raag-hindustani.com tried to store information but users cannot access these websites without an internet connection.

Android applications available the on play store like □□□ □□□□□, Raagam, Ragakosh, Indian Classical Raagas, etc contain information about Indian Classical Music and Raagas in Indian Classical Music but the information provided by these apps is not verified and insufficient.

Need For a New System

After reviewing the present system, we found flaws in the present system. Today the people interested in learning Indian Classical Music requires all the information on a single platform.

It is necessary to build platform users can find information about the various components of Indian Classical Music like Raags, Taals, Thhats, GayanSamay, and other musical terminologies that can be viewed on a single platform. It is required to reduce the efforts to carry heavy and many books and to provide verified information to Indian Classical Music lovers.

In the present system, there are lots of unwanted things are attached to it like unwanted advertisements, privacy issues, and high memory usage. In our new system, we have tried to solve most of the problems that as been faced by the user i.e., in the application user will not see any kinds of unwanted promotional advertisements and our application is very easy to use and occupies very less memory usage as well as it also takes care of the privacy of user as it does not ask the user for access of any special permissions it will help our application to gain the trust of the users. A new system should help the users to connect with the administration of the new system handlers and developers to update and change the wrong information if mentioned in the system.

Feasibility Study

Feasibility Study: Whatever we think needs to be feasible. It is not wise to think about the feasibility of any problem we undertake. Feasibility is the study of impact, which happens in the organization by the development of a system. The impact can be either positive or negative. When a positive dominant-negative, then the system is considered feasible. Here the feasibility study can be performed in two ways such as technical and economical feasibility.

- **Technical feasibility:** We have developed our application to be used in the Android Operating system. Nowadays everyone has mobile phones in their pockets. In these mobile phones, the Android Operating system is used. Thus, people can have and use it anytime. We have used the most suitable and the lowest version of Android i.e., the Jellybeans version (Android 4.2.2) thus it is suitable for every device having any version after Jellybeans. For the development purpose, we have used the Android Studio Arctic Fox version (latest). For database connectivity, we have used SQL Server Management Studio.
- **Financial Feasibility:** For this development purpose we have used Android Studio and SQL Server Management Studio. These IDEs can be accessed free of cost. For Information gathering, we purchased some books to gain knowledge about Indian Classical Music. The information given in the application is useful for Indian Classical music lovers free of cost.
- **Social Feasibility:** Raagmala is an application developed to provide information about Indian classical Music among the various groups in society. This app is useful not only for vocal and instrumental artists but also for people who are

interested in learning Indian Classical Music. Indian Classical Music is an important part of Indian Culture. So, there is a large group of people in India who loves Indian Classical Music. This is useful for these people as well.

- **Resource Feasibility:** Before developing this whole software we searched for information about Indian Classical Music, Raagas in Indian Classical Music, Taals, and other musical terminologies in Indian Classical Music.

Project Category

Raagmala is an Android Based Application developed to be used in Android Operating System. For development purposes we have used XML i.e., Extensible Markup Language for front-end designing and Advanced java for Backend development. Other than this for data storing and data accessing we have used SQL Server Management Studio.

Software and

Hardware

Specification

Software and Hardware Specification

Hardware

The hardware means the basic physical component, which together with connectivity in them forms the machine called a computer without the hardware computer can't perform. In simple terms, hardware refers to the physical and visible components of the system.

Hardware Required:

- Android Phone

Software

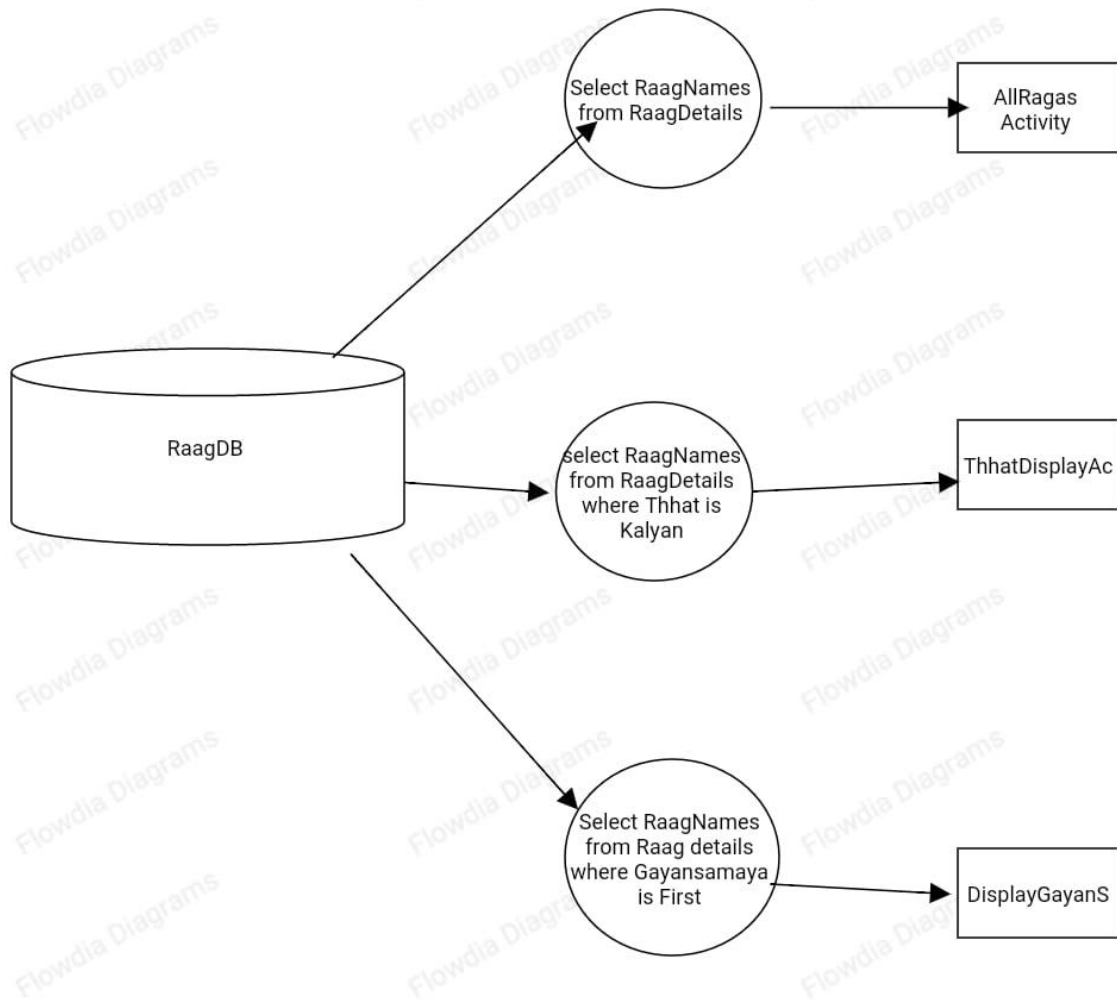
The software can be termed as the group of instructions or commonly used by the computer to accomplish the given task. Software refers to a set of instructions that enable the hardware to perform a specific set of tasks. Today's generation of software is never-ending. It is an evaluation of dignified technology.

Software Required:

- Operating System: Android OS
- Minimum Required Version: Jellybeans (Android version 4.2.2)

Detailed System Design

Data Flow Diagram



Number of Modules and Process Logic

- **All Ragas:** This Module will display all Ragas names in the button control in the List view control.
- **Thhats Module:** This module will display 10 Thhats in button control in List view control. These button controls are in the list view control. These buttons will individually direct to View Ragas activity. onClickListener this activity will display all ragas based on a particular Thaat.
- **Gayansamay:** This module will display a list of all Pahar's in a day in button controls in ListView control. These buttons will direct the screen to view Ragas' activity on the onClickListener event. This activity is used to display all Ragas familiar to the Gayansamay.
- **Taals:** This module will display a list of all Taals in the button in ListView control. These buttons will direct to Taals_details activity at the onClickListener method. This activity will display all the list and information of Taals.
- **Musical Terminologies:** This module will display a list of all musical terminologies used in this app and many more from Indian Classical Music. This Module will have a ListView control having button control for each item in the list.

Data structures and tables

	RaagName	Thhat	Aroha	Avaroha	Vadi	Samvadi	Gayansamaya	Jati
	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter
1	Bhoopali	Kalyan	S R G P D S'	S' D P G R S	Gandhar	Dhaiwat	Fifth Prahar	Audav- Audav
2	Yaman	Kalyan	N R G M P D N S'	S' N D P M G R S	Gandhar	Nishad	Fifth Prahar	Sampoorna-Sampoorna
3	Alhaiya Bilawal	Bilawal	S R G P D N S'	S' N D P D n D P m G R S;	Dhaiwat	Pancham	First Prahar	Shadhav- Sampoorna Vakra
4	Bihag	Bilawal	S G m P N S'	S' N D P M P G m G R S, S' N D P M G ...	Gandhar	Nishad	Sixth Prahar	Audav-Sampoorna Vakra
5	Nand	Kalyan	S G m D P R S ; G m P N S'	S D N P ; D M P G ; G m D P R S ;	Shadja	Gandhar	Sixth Prahar	Shadhav-Sampoorna
6	Deskari	Bilawal	S R G P D S'	S' D P D G P G R S	Dhaiwat	Gandhar	Second Prahar	Audav-Audav
7	Bhatiyar	Marwa	S r S ; S m ; m D P ; S D ; D N P m ; ...	S' r' N D P ; D N P m ; P G r S;	Madhyam	Shadja	Eighth Prahar	Sampoorna-Sampoorna Vakra
8	Des	Marwa	S R m P N S'	S R m P N S'	Rishabh	Pancham	Sixth Prahar	Audav- Sampoorna Vakra
9	Gorakh Kalyan	Khamaj	S R m D S'	S' n D m R S ,n ; ,n ,D R S;	Madhyam	Shadja	Sixth Prahar	Audav- Audav
10	Kafi	Kafi	S R g m P D n S'	S' n D P m g R S	Pancham	Shadja	Sixth Prahar	Sampoorna-Sampoorna
11	Abhogi Kanda	Kafi	S R g m D S'	S' D m g R g m R S ; R ,D ,D S ;	Madhyam	Shadja	Sixth Prahar	Audav- Audav
12	Bageshree	Kafi	S R g m D n S'	S' n D m D m g R S ; ,n S;	Madhyam	Shadja	Sixth Prahar	Shahav- Shadhav Vakra
13	Bheempalas	Kafi	,n S g m P n S'	S' n D P m g R S ; ,n S ,P ,n S;	Madhyam	Shadja	Third Prahar	Audav- Sampoorna
14	Asawari	Asawari	S R m P d S'	S' n d P m P d m P g R S	Dhaiwat	Gandhar	Second Prahar	Audav- Sampoorna
15	Jaunpuri	Asawari	S R m P d n S'	S' n d P m g R S;	Dhaiwat	Gandhar	Second Prahar	Shadav- Sampoorna
16	Darbari Kanada	Asawari	S R g m P d n S'	S' d n P m P g m R S;	Rishabh	Pancham	Seventh Prahar	Sampoorna-Sampoorna Vakra
17	Bhairavi	Bhairavi	S r g m P d n S'	S' n d P m g r S	Madhyam	Shadja	First Prahar	Sampoorna- Sampoorna
18	Basant Bahar	Bhairavi	S G M G M n D S'	D n S' n P M G M G M G r S	Shadja	Pancham	Seventh Prahar	Audav- Sampoorna
19	Malkauns	Bhairavi	S g m d n S'	S' n d m g S;	Madhyam	Shadja	Sixth Prahar	Audav- Audav
20	Bhairav	Bhairav	S r G m P d N S'	S' N d P m G r S;	Dhaiwat	Rishabh	First Prahar	Sampoorna- Sampoorna
21	Ahir Bhairav	Bhairav	S r G m P D n S'	S' n D P m G r S or S' n D P m G m r S;	Madhyam	Shadja	First Prahar	Sampoorna- Sampoorna
22	Ramkali	Bhairav	S r G m P d N S'	S' N d P ; M P d n d P ; M P G m r S ;	Pancham	Shadja	First Prahar	Sampoorna-Sampoorna Vakra
23	Lalit	Marwa	,N r G M d n S'	' N d ; M d M m ; G M G r S	Madhyam	Shadja	Eighth Prahar	Shadhav- Shadhav Vakra

24	Puriya Dhanshri	Poorvi	,N r S ; ,N r G M P ; M d n S'	S' N d P M G M r G r S;	Pancham	Shadja	Forth Prahar	Sampoorna-Sampoorna Vakra
25	Basant	Poorvi	S G M d n S'	S' N d P M G M n d M G r S;	Shadja	Pancham	Sixth Prahar	Audav- Sampoorna Vakra
26	Puriya Kalyan	Marwa	S r G M P D N S'	S' N D P M G r G r S;	Shadja	Pancham	Forth Prahar	Sampoorna-Sampoorna Vakra
27	Shree	Poorvi	S r M P N S'	S' r' N d P M P d M G r S;	Rishabh	Pancham	Forth Prahar	Audav- Sampoorna Vakra
28	Miya ki todi	Todi	S r g M P d N S'	S' N d P m g r S;	Dhaiwat	Gandhar	Second Prahar	Sampoorna- Sampoorna
29	Gujari Todi	Todi	S r g M d n S'	S' N d M d M g r g r S ; ,d ,N S;	Dhaiwat	Rishabh	Second Prahar	Shadhav- Shadhav
30	Madhuwanti	Todi	,N S g M P N S'	S' N D P m g M G R S ,N S;	Pancham	Shadja	Forth Prahar	Audav-Sampurna

System Design

AndroidManifest.xml

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.hss.raagmalahcm">

    <application
        android:allowBackup="true"
        android:icon="@drawable/icon"
        android:label="@string/app_name"
        android:roundIcon="@drawable/icon"
        android:supportsRtl="true"
        android:theme="@style/Theme.RaagmalaHCM">
        <activity
            android:name=".ththatview.AllThat"
            android:exported="false" />
        <activity
            android:name=".allragasview.DisplayRaag"
            android:exported="false" />

        <activity
            android:name=".SearchList"
            android:exported="false" />
        <activity
            android:name=".allragasview.AllRagas"
            android:exported="false" />
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>
```

MainActivity.java

```
package com.example.raagmalaapplication;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;

import java.sql.Connection;

public class MainActivity extends AppCompatActivity {
    private Button btn_start;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        btn_start = findViewById(R.id.start);
        btn_start.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                startActivity(new Intent(MainActivity.this,
SearchList.class));
                finish();
            }
        });
    }
}
```

SearchList.java

```
package com.hss.raagmalahcm;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;

import java.sql.Connection;

public class SearchList extends AppCompatActivity {
    private Button all;
    private Button thaat;
    private Button gayansamay;
    private Button terminologies;
    private Button taal;
    Connection connect;
```

@Override

```
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_search_list);

    //for all ragas list
    all = findViewById(R.id.allraag);
    all.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            startActivity(new Intent(SearchList.this, AllRagas.class));
            finish();
        }
    });
    //for search by thaat
    thaat = findViewById(R.id.that);
    thaat.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            startActivity(new Intent(SearchList.this, ThaatList.class));
            finish();
        }
    });
    //for search by gayansamaya
    gayansamay = findViewById(R.id.gayansamaya);
    gayansamay.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            startActivity(new Intent(SearchList.this, GayansamayList.class));
            finish();
        }
    });
    //for search by terminologies
    terminologies = findViewById(R.id.terminologies2);
    terminologies.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            startActivity(new Intent(SearchList.this, MainActivity.class));
            finish();
        }
    });
    //for search by taal
    taal = findViewById(R.id.taal);
    taal.setOnClickListener(new View.OnClickListener() {
        @Override
```

```
public void onClick(View v) {  
    startActivity(new Intent(SearchList.this, TaalList.class));  
    finish();  
}  
});  
}  
}
```

AllRagas.java

```
package com.hss.raagmalahcm.allragasview;

import android.content.Intent;
import android.database.Cursor;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.TextView;
import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

import com.hss.raagmalahcm.MainActivity;
import com.hss.raagmalahcm.R;
import com.hss.raagmalahcm.SearchList;
import com.hss.raagmalahcm.database.DatabaseAccess;

import java.util.List;

public class AllRagas extends AppCompatActivity {
    // ArrayList<modelforallview> modelforallviewArrayList = new
    ArrayList<modelforallview>();
    // ArrayAdapter adapter;

    // DBAccess db;
    ListView listallragas;
    Intent intent;
    String RaagInfo;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_all_ragas);

        this.listallragas = findViewById(R.id.allragaslist);
        DatabaseAccess databaseAccess = DatabaseAccess.getInstance(this);
        databaseAccess.open();
        List<String> RaagName = databaseAccess.getRagas();
        databaseAccess.close();

        ArrayAdapter<String> adapter = new ArrayAdapter<>(this,
        android.R.layout.simple_list_item_1, RaagName);
        this.listallragas.setAdapter(adapter);
        this.listallragas.setOnItemClickListener(new
        AdapterView.OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> parent, View view, int
            position, long id) {
                RaagInfo = RaagName.get(position);
            }
        });
    }
}
```

```
        Toast.makeText(AllRagas.this, RaagInfo+"",
Toast.LENGTH_SHORT).show();
        intent = new Intent(AllRagas.this, DisplayRaag.class);
        startActivity(intent);
    }
}
}
```

MyDBHandler.java

```
package com.hss.raagmalahcm.database;

import android.annotation.SuppressLint;
import android.content.ContentValues;
import android.content.Context;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteOpenHelper;

import com.readystatesoftware.sqliteasset.SQLiteAssetHelper;

import java.util.ArrayList;
import java.util.HashMap;

public class MyDBHandler extends SQLiteAssetHelper {
    private static final String DBNAME = "RaagDB.db";
    private static final int VERSION=1;

    public MyDBHandler(Context context) {
        super(context, DBNAME, null, VERSION );
    }
}
```


DataBaseAccess.java

```
package com.hss.raagmalahcm.database;

import android.content.Context;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteOpenHelper;

import java.util.ArrayList;
import java.util.List;

public class DatabaseAccess {
    private SQLiteOpenHelper openHelper;
    private SQLiteDatabase database;
    private static DatabaseAccess instance;
    Context context;

    private DatabaseAccess(Context context) {
        this.openHelper = new MyDBHandler(context);
    }

    /**
     * Return a singleton instance of DatabaseAccess.
     *
     * @param context the Context
     * @return the instance of DatabaseAccess
     */
    public static DatabaseAccess getInstance(Context context) {
        if (instance == null) {
            instance = new DatabaseAccess(context);
        }
        return instance;
    }

    /**
     * Open the database connection.
     */
    public void open() {
        this.database = openHelper.getWritableDatabase();
    }

    /**
     * Close the database connection.
     */
    public void close() {
        if (database != null) {
            this.database.close();
        }
    }

    public List<String> getRagas() {
        List<String> list = new ArrayList<>();
        Cursor cursor = database.rawQuery("SELECT * FROM RaagDetails ",
null);
        cursor.moveToFirst();
        while (!cursor.isAfterLast()) {
```

```
        list.add(cursor.getString(0));

        cursor.moveToNext();
    }
    cursor.close();
    return list;
}
public List<String> getKalyanRagas() {
    List<String> kalyan = new ArrayList<>();
    Cursor cursor = database.rawQuery("SELECT * FROM RaagDetails where
Thhat = Kalyan", null);
    cursor.moveToFirst();
    while (!cursor.isAfterLast()) {
        kalyan.add(cursor.getString(0));

        cursor.moveToNext();
    }
    cursor.close();
    return kalyan;
}
}
```

KalyanThhat.java

```
package com.hss.raagmalahcm.allragasview;

import android.content.Intent;
import android.database.Cursor;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.Adapter;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.TextView;
import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

import com.hss.raagmalahcm.MainActivity;
import com.hss.raagmalahcm.R;
import com.hss.raagmalahcm.SearchList;
import com.hss.raagmalahcm.database.DatabaseAccess;

import java.util.List;

public class KalyanThthatView extends AppCompatActivity {
    // ArrayList<modelforallview> modelforallviewArrayList = new
    ArrayList<modelforallview>();
    // ArrayAdapter adapter;

    // DBAccess db;
    ListView listKalyanragas;
    Intent intent;
    String RaagInfo;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_all_ragas);

        this.listKalyanragas = findViewById(R.id.allKalyanlist);
        DatabaseAccess databaseAccess = DatabaseAccess.getInstance(this);
        databaseAccess.open();
        List<String> KalyanName = databaseAccess.getKalyanRagas();
        databaseAccess.close();

        ArrayAdapter<String> adapter = new ArrayAdapter<>(this,
        android.R.layout.simple_list_item_1, KalyanName);
        this.listallragas.setAdapter(adapter);
        this.listallragas.setOnItemClickListener(new
        AdapterView.OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> parent, View view, int
            position, long id) {
                RaagInfo = KalyanName.get(position);
            }
        });
    }
}
```

```
        Toast.makeText(Kalyan.this, RaagInfo+"",  
Toast.LENGTH_SHORT).show();  
    }  
    });  
}
```

Bilawal.java

```
package com.hss.raagmalahcm.allragasview;

import android.content.Intent;
import android.database.Cursor;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.TextView;
import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

import com.hss.raagmalahcm.MainActivity;
import com.hss.raagmalahcm.R;
import com.hss.raagmalahcm.SearchList;
import com.hss.raagmalahcm.database.DatabaseAccess;

import java.util.List;

public class Bilawal extends AppCompatActivity {
    // ArrayList<modelforallview> modelforallviewArrayList = new
    ArrayList<modelforallview>();
    // ArrayAdapter adapter;

    // DBAccess db;
    ListView listBilwalragas;
    Intent intent;
    String RaagInfo;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_all_ragas);

        this.listallBilawal = findViewById(R.id.allBilwallist);
        DatabaseAccess databaseAccess = DatabaseAccess.getInstance(this);
        databaseAccess.open();
        List<String> BilawalName = databaseAccess.getBilawalRagas();
        databaseAccess.close();

        ArrayAdapter<String> adapter = new ArrayAdapter<>(this,
        android.R.layout.simple_list_item_1, BilawalName);
        this.listallragas.setAdapter(adapter);
        this.listallragas.setOnItemClickListener(new
        AdapterView.OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> parent, View view, int
            position, long id) {
                RaagInfo = BilawalName.get(position);
            }
        });
    }
}
```

```
        Toast.makeText(Bilawal.this, RaagInfo+"",
Toast.LENGTH_SHORT).show();
    }
    });
}
```

Kafi.java

```
package com.hss.raagmalahcm.allragasview;

import android.content.Intent;
import android.database.Cursor;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.Adapter;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.TextView;
import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

import com.hss.raagmalahcm.MainActivity;
import com.hss.raagmalahcm.R;
import com.hss.raagmalahcm.SearchList;
import com.hss.raagmalahcm.database.DatabaseAccess;

import java.util.List;

public class Kafi extends AppCompatActivity {
    // ArrayList<modelforallview> modelforallviewArrayList = new
    ArrayList<modelforallview>();
    // ArrayAdapter adapter;

    // DBAccess db;
    ListView listallragas;
    Intent intent;
    String RaagInfo;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_all_ragas);

        this.listkafiragas = findViewById(R.id.allkafilist);
        DatabaseAccess databaseAccess = DatabaseAccess.getInstance(this);
        databaseAccess.open();
        List<String> KafiName = databaseAccess.getKafiRagas();
        databaseAccess.close();

        ArrayAdapter<String> adapter = new ArrayAdapter<>(this,
        android.R.layout.simple_list_item_1, KafiName);
        this.listallragas.setAdapter(adapter);
        this.listallragas.setOnItemClickListener(new
        AdapterView.OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> parent, View view, int
            position, long id) {
                RaagInfo = KafiName.get(position);
            }
        });
    }
}
```

```
        Toast.makeText(Kafi.this, RaagInfo+"",
Toast.LENGTH_SHORT).show();
    }
    });
}
```



```
Marva.java
package com.hss.raagmalahcm.allragasview;

import android.content.Intent;
import android.database.Cursor;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.Adapter;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.TextView;
import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

import com.hss.raagmalahcm.MainActivity;
import com.hss.raagmalahcm.R;
import com.hss.raagmalahcm.SearchList;
import com.hss.raagmalahcm.database.DatabaseAccess;

import java.util.List;

public class Marva extends AppCompatActivity {
    // ArrayList<modelforallview> modelforallviewArrayList = new
    ArrayList<modelforallview>();
    // ArrayAdapter adapter;

    // DBAccess db;
    ListView listMarvaragas;
    Intent intent;
    String RaagInfo;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_all_ragas);

        this.listMarvaragas = findViewById(R.id.allmarvaslist);
        DatabaseAccess databaseAccess = DatabaseAccess.getInstance(this);
        databaseAccess.open();
        List<String> MarvaName = databaseAccess.getMarwaRagas();
        databaseAccess.close();

        ArrayAdapter<String> adapter = new ArrayAdapter<>(this,
            android.R.layout.simple_list_item_1, MarvaName);
        this.listallragas.setAdapter(adapter);
        this.listallragas.setOnItemClickListener(new
            AdapterView.OnItemClickListener() {
                @Override
                public void onItemClick(AdapterView<?> parent, View view, int
                    position, long id) {
                    RaagInfo = MarvaName.get(position);

                    Toast.makeText(Marwa.this, RaagInfo+"",
```

```
Toast.LENGTH_SHORT).show();  
    }  
});  
}
```

Bhairav.java

```
package com.hss.raagmalahcm.allragasview;

import android.content.Intent;
import android.database.Cursor;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.TextView;
import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

import com.hss.raagmalahcm.MainActivity;
import com.hss.raagmalahcm.R;
import com.hss.raagmalahcm.SearchList;
import com.hss.raagmalahcm.database.DatabaseAccess;

import java.util.List;

public class AllRagas extends AppCompatActivity {
    // ArrayList<modelforallview> modelforallviewArrayList = new
    ArrayList<modelforallview>();
    // ArrayAdapter adapter;

    // DBAccess db;
    ListView listallragas;
    Intent intent;
    String RaagInfo;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_all_ragas);

        this.listallragas = findViewById(R.id.allragaslist);
        DatabaseAccess databaseAccess = DatabaseAccess.getInstance(this);
        databaseAccess.open();
        List<String> RaagName = databaseAccess.getRagas();
        databaseAccess.close();

        ArrayAdapter<String> adapter = new ArrayAdapter<>(this,
        android.R.layout.simple_list_item_1, RaagName);
        this.listallragas.setAdapter(adapter);
        this.listallragas.setOnItemClickListener(new
        AdapterView.OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> parent, View view, int
            position, long id) {
                RaagInfo = RaagName.get(position);
            }
        });
    }
}
```

```
        Toast.makeText(AllRagas.this, RaagInfo+"",
Toast.LENGTH_SHORT).show();
    }
    });
}
```

Bhairavi.java

```
package com.hss.raagmalahcm.allragasview;

import android.content.Intent;
import android.database.Cursor;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.AdapterView.OnItemSelectedListener;
import android.widget.ArrayAdapter;
import android.widget.ArrayAdapter.OnItemClickListener;
import android.widget.AdapterView.OnItemSelectedListener;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.AdapterView.OnItemSelectedListener;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.AdapterView.OnItemSelectedListener;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.AdapterView.OnItemSelectedListener;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.AdapterView.OnItemSelectedListener;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.AdapterView.OnItemSelectedListener;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.AdapterView.OnItemSelectedListener;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.AdapterView.OnItemSelectedListener;

import androidx.appcompat.app.AppCompatActivity;

import com.hss.raagmalahcm.MainActivity;
import com.hss.raagmalahcm.R;
import com.hss.raagmalahcm.SearchList;
import com.hss.raagmalahcm.database.DatabaseAccess;

import java.util.List;

public class AllRagas extends AppCompatActivity {
    // ArrayList<modelforallview> modelforallviewArrayList = new
    ArrayList<modelforallview>();
    // ArrayAdapter adapter;

    // DBAccess db;
    ListView listallragas;
    Intent intent;
    String RaagInfo;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_all_ragas);

        this.listallragas = findViewById(R.id.allragaslist);
        DatabaseAccess databaseAccess = DatabaseAccess.getInstance(this);
        databaseAccess.open();
        List<String> RaagName = databaseAccess.getRagas();
        databaseAccess.close();

        ArrayAdapter<String> adapter = new ArrayAdapter<>(this,
        android.R.layout.simple_list_item_1, RaagName);
        this.listallragas.setAdapter(adapter);
        this.listallragas.setOnItemClickListener(new
        AdapterView.OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> parent, View view, int
            position, long id) {
                RaagInfo = RaagName.get(position);
            }
        });
    }
}
```

```
        Toast.makeText(AllRagas.this, RaagInfo+"",
Toast.LENGTH_SHORT).show();
    }
    });
}
```

Khamaj.java

```
package com.hss.raagmalahcm.allragasview;

import android.content.Intent;
import android.database.Cursor;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.Adapter;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.TextView;
import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

import com.hss.raagmalahcm.MainActivity;
import com.hss.raagmalahcm.R;
import com.hss.raagmalahcm.SearchList;
import com.hss.raagmalahcm.database.DatabaseAccess;

import java.util.List;

public class AllRagas extends AppCompatActivity {
    // ArrayList<modelforallview> modelforallviewArrayList = new
    ArrayList<modelforallview>();
    // ArrayAdapter adapter;

    // DBAccess db;
    ListView listallragas;
    Intent intent;
    String RaagInfo;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_all_ragas);

        this.listallragas = findViewById(R.id.allragaslist);
        DatabaseAccess databaseAccess = DatabaseAccess.getInstance(this);
        databaseAccess.open();
        List<String> RaagName = databaseAccess.getRagas();
        databaseAccess.close();

        ArrayAdapter<String> adapter = new ArrayAdapter<>(this,
        android.R.layout.simple_list_item_1, RaagName);
        this.listallragas.setAdapter(adapter);
        this.listallragas.setOnItemClickListener(new
        AdapterView.OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> parent, View view, int
            position, long id) {
                RaagInfo = RaagName.get(position);
            }
        });
    }
}
```

```
        Toast.makeText(AllRagas.this, RaagInfo+"",
Toast.LENGTH_SHORT).show();
    }
    });
}
```


Asawari.java

```
package com.hss.raagmalahcm.allragasview;

import android.content.Intent;
import android.database.Cursor;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.Adapter;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.TextView;
import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

import com.hss.raagmalahcm.MainActivity;
import com.hss.raagmalahcm.R;
import com.hss.raagmalahcm.SearchList;
import com.hss.raagmalahcm.database.DatabaseAccess;

import java.util.List;

public class AllRagas extends AppCompatActivity {
    // ArrayList<modelforallview> modelforallviewArrayList = new
    ArrayList<modelforallview>();
    // ArrayAdapter adapter;

    // DBAccess db;
    ListView listallragas;
    Intent intent;
    String RaagInfo;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_all_ragas);

        this.listallragas = findViewById(R.id.allragaslist);
        DatabaseAccess databaseAccess = DatabaseAccess.getInstance(this);
        databaseAccess.open();
        List<String> RaagName = databaseAccess.getRagas();
        databaseAccess.close();

        ArrayAdapter<String> adapter = new ArrayAdapter<>(this,
        android.R.layout.simple_list_item_1, RaagName);
        this.listallragas.setAdapter(adapter);
        this.listallragas.setOnItemClickListener(new
        AdapterView.OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> parent, View view, int
            position, long id) {
                RaagInfo = RaagName.get(position);
            }
        });
    }
}
```

```
        Toast.makeText(AllRagas.this, RaagInfo+"",
Toast.LENGTH_SHORT).show();
    }
    });
}
```

Todi.java

```
package com.hss.raagmalahcm.allragasview;

import android.content.Intent;
import android.database.Cursor;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.TextView;
import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

import com.hss.raagmalahcm.MainActivity;
import com.hss.raagmalahcm.R;
import com.hss.raagmalahcm.SearchList;
import com.hss.raagmalahcm.database.DatabaseAccess;

import java.util.List;

public class AllRagas extends AppCompatActivity {
    // ArrayList<modelforallview> modelforallviewArrayList = new
    ArrayList<modelforallview>();
    // ArrayAdapter adapter;

    // DBAccess db;
    ListView listallragas;
    Intent intent;
    String RaagInfo;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_all_ragas);

        this.listtodiragas = findViewById(R.id.alltodilist);
        DatabaseAccess databaseAccess = DatabaseAccess.getInstance(this);
        databaseAccess.open();
        List<String> TodiName = databaseAccess.gettodiRagas();
        databaseAccess.close();

        ArrayAdapter<String> adapter = new ArrayAdapter<>(this,
        android.R.layout.simple_list_item_1, todiName);
        this.listallragas.setAdapter(adapter);
        this.listallragas.setOnItemClickListener(new
        AdapterView.OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> parent, View view, int
            position, long id) {
```

```
        RaagInfo = todiName.get(position);  
        Toast.makeText(Todi.this, RaagInfo+"",  
Toast.LENGTH_SHORT).show();  
    }  
});  
}
```

First.java

```
package com.hss.raagmalahcm.allragasview;

import android.content.Intent;
import android.database.Cursor;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.TextView;
import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

import com.hss.raagmalahcm.MainActivity;
import com.hss.raagmalahcm.R;
import com.hss.raagmalahcm.SearchList;
import com.hss.raagmalahcm.database.DatabaseAccess;

import java.util.List;

public class First extends AppCompatActivity {
    // ArrayList<modelforallview> modelforallviewArrayList = new
    ArrayList<modelforallview>();
    // ArrayAdapter adapter;

    // DBAccess db;
    ListView listallragas;
    Intent intent;
    String RaagInfo;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_all_ragas);

        this.listallragas = findViewById(R.id.allragaslist);
        DatabaseAccess databaseAccess = DatabaseAccess.getInstance(this);
        databaseAccess.open();
        List<String> RaagName = databaseAccess.getRagas();
        databaseAccess.close();

        ArrayAdapter<String> adapter = new ArrayAdapter<>(this,
        android.R.layout.simple_list_item_1, RaagName);
        this.listallragas.setAdapter(adapter);
        this.listallragas.setOnItemClickListener(new
        AdapterView.OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> parent, View view, int
            position, long id) {
                RaagInfo = RaagName.get(position);
            }
        });
    }
}
```

```
        Toast.makeText(AllRagas.this, RaagInfo+"",
Toast.LENGTH_SHORT).show();
    }
    });
}
```

Second.java

```
package com.hss.raagmalahcm.allragasview;

import android.content.Intent;
import android.database.Cursor;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.TextView;
import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

import com.hss.raagmalahcm.MainActivity;
import com.hss.raagmalahcm.R;
import com.hss.raagmalahcm.SearchList;
import com.hss.raagmalahcm.database.DatabaseAccess;

import java.util.List;

public class Second extends AppCompatActivity {
    // ArrayList<modelforallview> modelforallviewArrayList = new
    ArrayList<modelforallview>();
    // ArrayAdapter adapter;

    // DBAccess db;
    ListView listallragas;
    Intent intent;
    String RaagInfo;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_all_ragas);

        this.listallragas = findViewById(R.id.allragaslist);
        DatabaseAccess databaseAccess = DatabaseAccess.getInstance(this);
        databaseAccess.open();
        List<String> RaagName = databaseAccess.getRagas();
        databaseAccess.close();

        ArrayAdapter<String> adapter = new ArrayAdapter<>(this,
        android.R.layout.simple_list_item_1, RaagName);
        this.listallragas.setAdapter(adapter);
        this.listallragas.setOnItemClickListener(new
        AdapterView.OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> parent, View view, int
            position, long id) {
                RaagInfo = RaagName.get(position);
            }
        });
    }
}
```

```
        Toast.makeText(AllRagas.this, RaagInfo+"",  
Toast.LENGTH_SHORT).show();  
    }  
    });  
}
```


Third.java

```
package com.hss.raagmalahcm.allragasview;

import android.content.Intent;
import android.database.Cursor;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.TextView;
import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

import com.hss.raagmalahcm.MainActivity;
import com.hss.raagmalahcm.R;
import com.hss.raagmalahcm.SearchList;
import com.hss.raagmalahcm.database.DatabaseAccess;

import java.util.List;

public class Third extends AppCompatActivity {
    // ArrayList<modelforallview> modelforallviewArrayList = new
    ArrayList<modelforallview>();
    // ArrayAdapter adapter;

    // DBAccess db;
    ListView listallragas;
    Intent intent;
    String RaagInfo;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_all_ragas);

        this.listallragas = findViewById(R.id.allragaslist);
        DatabaseAccess databaseAccess = DatabaseAccess.getInstance(this);
        databaseAccess.open();
        List<String> RaagName = databaseAccess.getRagas();
        databaseAccess.close();

        ArrayAdapter<String> adapter = new ArrayAdapter<>(this,
        android.R.layout.simple_list_item_1, RaagName);
        this.listallragas.setAdapter(adapter);
        this.listallragas.setOnItemClickListener(new
        AdapterView.OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> parent, View view, int
            position, long id) {
                RaagInfo = RaagName.get(position);
            }
        });
    }
}
```

```
        Toast.makeText(AllRagas.this, RaagInfo+"",  
Toast.LENGTH_SHORT).show();  
    }  
    });  
}
```

Forth.java

```
package com.hss.raagmalahcm.allragasview;

import android.content.Intent;
import android.database.Cursor;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.TextView;
import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

import com.hss.raagmalahcm.MainActivity;
import com.hss.raagmalahcm.R;
import com.hss.raagmalahcm.SearchList;
import com.hss.raagmalahcm.database.DatabaseAccess;

import java.util.List;

public class Forth extends AppCompatActivity {
    // ArrayList<modelforallview> modelforallviewArrayList = new
    ArrayList<modelforallview>();
    // ArrayAdapter adapter;

    // DBAccess db;
    ListView listallragas;
    Intent intent;
    String RaagInfo;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_all_ragas);

        this.listallragas = findViewById(R.id.allragaslist);
        DatabaseAccess databaseAccess = DatabaseAccess.getInstance(this);
        databaseAccess.open();
        List<String> RaagName = databaseAccess.getRagas();
        databaseAccess.close();

        ArrayAdapter<String> adapter = new ArrayAdapter<>(this,
        android.R.layout.simple_list_item_1, RaagName);
        this.listallragas.setAdapter(adapter);
        this.listallragas.setOnItemClickListener(new
        AdapterView.OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> parent, View view, int
            position, long id) {
```

```
        RaagInfo = RaagName.get(position);  
        Toast.makeText(AllRagas.this, RaagInfo+""  
Toast.LENGTH_SHORT).show();  
    }  
});  
}
```

Fifth.java

```
package com.hss.raagmalahcm.allragasview;

import android.content.Intent;
import android.database.Cursor;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.TextView;
import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

import com.hss.raagmalahcm.MainActivity;
import com.hss.raagmalahcm.R;
import com.hss.raagmalahcm.SearchList;
import com.hss.raagmalahcm.database.DatabaseAccess;

import java.util.List;

public class Fifth extends AppCompatActivity {
    // ArrayList<modelforallview> modelforallviewArrayList = new
    ArrayList<modelforallview>();
    // ArrayAdapter adapter;

    // DBAccess db;
    ListView listallragas;
    Intent intent;
    String RaagInfo;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_all_ragas);

        this.listallragas = findViewById(R.id.allragaslist);
        DatabaseAccess databaseAccess = DatabaseAccess.getInstance(this);
        databaseAccess.open();
        List<String> RaagName = databaseAccess.getRagas();
        databaseAccess.close();

        ArrayAdapter<String> adapter = new ArrayAdapter<>(this,
        android.R.layout.simple_list_item_1, RaagName);
        this.listallragas.setAdapter(adapter);
        this.listallragas.setOnItemClickListener(new
        AdapterView.OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> parent, View view, int
```

```
position, long id) {  
    RaagInfo = RaagName.get(position);  
  
    Toast.makeText(AllRagas.this, RaagInfo+"",  
Toast.LENGTH_SHORT).show();  
    }  
});  
}  
}
```

Sixth.java

```
package com.hss.raagmalahcm.allragasview;

import android.content.Intent;
import android.database.Cursor;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.TextView;
import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

import com.hss.raagmalahcm.MainActivity;
import com.hss.raagmalahcm.R;
import com.hss.raagmalahcm.SearchList;
import com.hss.raagmalahcm.database.DatabaseAccess;

import java.util.List;

public class Sixth extends AppCompatActivity {
    // ArrayList<modelforallview> modelforallviewArrayList = new
    ArrayList<modelforallview>();
    // ArrayAdapter adapter;

    // DBAccess db;
    ListView listallragas;
    Intent intent;
    String RaagInfo;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_all_ragas);

        this.listallragas = findViewById(R.id.allragaslist);
        DatabaseAccess databaseAccess = DatabaseAccess.getInstance(this);
        databaseAccess.open();
        List<String> RaagName = databaseAccess.getRagas();
        databaseAccess.close();

        ArrayAdapter<String> adapter = new ArrayAdapter<>(this,
        android.R.layout.simple_list_item_1, RaagName);
        this.listallragas.setAdapter(adapter);
        this.listallragas.setOnItemClickListener(new
        AdapterView.OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> parent, View view, int
            position, long id) {
```

```
        RaagInfo = RaagName.get(position);  
        Toast.makeText(AllRagas.this, RaagInfo+""  
Toast.LENGTH_SHORT).show();  
    }  
});  
}
```


Seventh.java

```
package com.hss.raagmalahcm.allragasview;

import android.content.Intent;
import android.database.Cursor;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.TextView;
import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

import com.hss.raagmalahcm.MainActivity;
import com.hss.raagmalahcm.R;
import com.hss.raagmalahcm.SearchList;
import com.hss.raagmalahcm.database.DatabaseAccess;

import java.util.List;

public class Seventh extends AppCompatActivity {
    // ArrayList<modelforallview> modelforallviewArrayList = new
    ArrayList<modelforallview>();
    // ArrayAdapter adapter;

    // DBAccess db;
    ListView listallragas;
    Intent intent;
    String RaagInfo;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_all_ragas);

        this.listallragas = findViewById(R.id.allragaslist);
        DatabaseAccess databaseAccess = DatabaseAccess.getInstance(this);
        databaseAccess.open();
        List<String> RaagName = databaseAccess.getRagas();
        databaseAccess.close();

        ArrayAdapter<String> adapter = new ArrayAdapter<>(this,
        android.R.layout.simple_list_item_1, RaagName);
        this.listallragas.setAdapter(adapter);
        this.listallragas.setOnItemClickListener(new
        AdapterView.OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> parent, View view, int
            position, long id) {
```

```
        RaagInfo = RaagName.get(position);  
        Toast.makeText(AllRagas.this, RaagInfo+""  
Toast.LENGTH_SHORT).show();  
    }  
});  
}
```

Eighth.java

```
package com.hss.raagmalahcm.allragasview;

import android.content.Intent;
import android.database.Cursor;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.TextView;
import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

import com.hss.raagmalahcm.MainActivity;
import com.hss.raagmalahcm.R;
import com.hss.raagmalahcm.SearchList;
import com.hss.raagmalahcm.database.DatabaseAccess;

import java.util.List;

public class Eighth extends AppCompatActivity {
    // ArrayList<modelforallview> modelforallviewArrayList = new
    ArrayList<modelforallview>();
    // ArrayAdapter adapter;

    // DBAccess db;
    ListView listallragas;
    Intent intent;
    String RaagInfo;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_all_ragas);

        this.listallragas = findViewById(R.id.allragaslist);
        DatabaseAccess databaseAccess = DatabaseAccess.getInstance(this);
        databaseAccess.open();
        List<String> RaagName = databaseAccess.getRagas();
        databaseAccess.close();

        ArrayAdapter<String> adapter = new ArrayAdapter<>(this,
            android.R.layout.simple_list_item_1, RaagName);
        this.listallragas.setAdapter(adapter);
        this.listallragas.setOnItemClickListener(new
            AdapterView.OnItemClickListener() {
                @Override
                public void onItemClick(AdapterView<?> parent, View view, int
```

```
position, long id) {  
    RaagInfo = RaagName.get(position);  
  
    Toast.makeText(AllRagas.this, RaagInfo+"",  
Toast.LENGTH_SHORT).show();  
    }  
});  
}  
}
```

Build.gradle

// Top-level build file where you can add configuration options common to all sub-projects/modules.

```
plugins {  
    id 'com.android.application' version '7.1.3' apply false  
    id 'com.android.library' version '7.1.3' apply false  
}  
  
task clean(type: Delete) {  
    delete rootProject.buildDir  
}
```

```
Build.Gradle(Module)
plugins {
    id 'com.android.application'
}

android {
    compileSdk 31

    defaultConfig {
        applicationId "com.hss.raagmalahcm"
        minSdk 26
        targetSdk 31
        versionCode 1
        versionName "1.0"

        testInstrumentationRunner "androidx.test.runner.AndroidJUnitRunner"
    }

    buildTypes {
        release {
            minifyEnabled false
            proguardFiles getDefaultProguardFile('proguard-android-
optimize.txt'), 'proguard-rules.pro'
        }
    }
    compileOptions {
        sourceCompatibility JavaVersion.VERSION_1_8
        targetCompatibility JavaVersion.VERSION_1_8
    }
}

dependencies {

    implementation 'androidx.appcompat:appcompat:1.4.1'
    implementation 'com.google.android.material:material:1.6.0'
    implementation 'androidx.constraintlayout:constraintlayout:2.1.3'
    testImplementation 'junit:junit:4.13.2'
    androidTestImplementation 'androidx.test.ext:junit:1.1.3'
    androidTestImplementation 'androidx.test.espresso:espresso-core:3.4.0'

    implementation 'com.readystatesoftware.sqliteasset:sqliteassethelper:+'
}
```

Gradle.Properties

```
# Project-wide Gradle settings.
# IDE (e.g. Android Studio) users:
# Gradle settings configured through the IDE *will override*
# any settings specified in this file.
# For more details on how to configure your build environment visit
# http://www.gradle.org/docs/current/userguide/build\_environment.html
# Specifies the JVM arguments used for the daemon process.
# The setting is particularly useful for tweaking memory settings.
org.gradle.jvmargs=-Xmx2048m -Dfile.encoding=UTF-8
# When configured, Gradle will run in incubating parallel mode.
# This option should only be used with decoupled projects. More details,
visit
#
http://www.gradle.org/docs/current/userguide/multi\_project\_builds.html#sec:de
coupled\_projects
# org.gradle.parallel=true
# AndroidX package structure to make it clearer which packages are bundled
with the
# Android operating system, and which are packaged with your app's APK
# https://developer.android.com/topic/libraries/support-library/androidx-rn
android.useAndroidX=true
# Enables namespacing of each library's R class so that its R class includes
only the
# resources declared in the library itself and none from the library's
dependencies,
# thereby reducing the size of the R class for that library
android.nonTransitiveRClass=true
```

Proguard.rules

```
# Add project specific ProGuard rules here.
# You can control the set of applied configuration files using the
# proguardFiles setting in build.gradle.
#
# For more details, see
# http://developer.android.com/guide/developing/tools/proguard.html

# If your project uses WebView with JS, uncomment the following
# and specify the fully qualified class name to the JavaScript interface
# class:
#-keepclassmembers class fqcn.of.javascript.interface.for.webview {
#    public *;
#}

# Uncomment this to preserve the line number information for
# debugging stack traces.
#-keepattributes SourceFile,LineNumberTable

# If you keep the line number information, uncomment this to
# hide the original source file name.
#-renamesourcefileattribute SourceFile
```


Settings.gradle

```
pluginManagement {
    repositories {
        gradlePluginPortal()
        google()
        mavenCentral()
    }
}
dependencyResolutionManagement {
    repositoriesMode.set(RepositoriesMode.FAIL_ON_PROJECT_REPOS)
    repositories {
        google()
        mavenCentral()
    }
}
rootProject.name = "RaagmalaHCM"
include ':app'
```

```
## This file is automatically generated by Android Studio.
# Do not modify this file -- YOUR CHANGES WILL BE ERASED!
#
# This file should *NOT* be checked into Version Control Systems,
# as it contains information specific to your local configuration.
#
# Location of the SDK. This is only used by Gradle.
# For customization when using a Version Control System, please read the
# header note.
sdk.dir=C:\\Users\\chinu\\AppData\\Local\\Android\\Sdk
```

Form Design

activity_all_ragas.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/layoutall"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:background="@color/Gold"
    android:outlineAmbientShadowColor="@color/Gold"
    android:outlineSpotShadowColor="@color/Gold"
    tools:context=".AllRagas">

    <TextView
        android:id="@+id/allragasview"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/All"
        android:textColor="@color/Burnt_Umber"
        android:textSize="60sp"
        tools:ignore="TextContrastCheck" />

    <ScrollView
        android:id="@+id/scrollViewall"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentStart="true"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginStart="-6dp"
        android:layout_marginEnd="6dp"
        android:layout_marginBottom="499dp">

        <ListView
            android:id="@+id/allragaslist"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_centerHorizontal="true"
            android:layout_centerVertical="true"
            tools:ignore="TouchTargetSizeCheck" />
    </ScrollView>
</LinearLayout>
```

Activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
```

```

xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:tools="http://schemas.android.com/tools"
android:layout_width="match_parent"
android:layout_height="match_parent"
android:background="@color/Gold"
tools:context=".MainActivity" >

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent">

    <TextView
        android:id="@+id/textView"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="@string/welcome"
        android:textAlignment="center"
        android:textColor="@color/Burnt_Umber"
        android:textSize="40sp" />

    <ImageView
        android:id="@+id/imageView2"
        android:layout_width="match_parent"
        android:layout_height="427dp"
        app:srcCompat="@drawable/icon"
        android:contentDescription="@string/todo" />

    <Button
        android:id="@+id/start"
        style="@style/Widget.Material3.Button.ElevatedButton"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="@string/Start"
        android:textColor="@color/Burnt_Umber"
        android:textSize="20sp" />
</LinearLayout>
</androidx.constraintlayout.widget.ConstraintLayout>

```

Activity_gayansamaya.xml

```

<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".GayansamayList"

```

```
android:background="@color/Gold">
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="vertical"
    app:layout_constraintBottom_toTopOf="@+id/scrollView2"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent">

    <TextView
        android:id="@+id/gayansamaya"
        android:layout_width="match_parent"
        android:layout_height="76dp"
        android:text="@string/Srch_by_GayanSamay"
        android:textAlignment="center"
        android:textColor="#EF6C00"
        android:textSize="48sp"
        tools:ignore="TextContrastCheck" />
</LinearLayout>

<ScrollView
    android:id="@+id/scrollView2"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_marginTop="90dp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent">

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="vertical">

        <Button
            android:id="@+id/FirstPrahar"
            style="@style/Widget.Material3.Button.ElevatedButton"
            android:layout_width="match_parent"
            android:layout_height="117dp"
            android:text="@string/First"
            android:textColor="@color/Burnt_Umber"
            android:textSize="34sp" />

        <Button
            android:id="@+id/SecondPrahar"
            style="@style/Widget.Material3.Button.ElevatedButton"
            android:layout_width="match_parent"
            android:layout_height="117dp"
            android:text="@string/Second"
            android:textColor="@color/Burnt_Umber"
            android:textSize="34sp" />

        <Button
            android:id="@+id/ThirdPrahar"
```

```
        style="@style/Widget.Material3.Button.ElevatedButton"
        android:layout_width="match_parent"
        android:layout_height="117dp"
        android:text="@string/Third"
        android:textColor="@color/Burnt_Umber"
        android:textSize="34sp" />

<Button
    android:id="@+id/FourthPrahar"
    style="@style/Widget.Material3.Button.ElevatedButton"
    android:layout_width="match_parent"
    android:layout_height="117dp"
    android:text="@string/Forth"
    android:textColor="@color/Burnt_Umber"
    android:textSize="34sp" />

<Button
    android:id="@+id/FifthPrahar"
    style="@style/Widget.Material3.Button.ElevatedButton"
    android:layout_width="match_parent"
    android:layout_height="117dp"
    android:text="@string/Fifth"
    android:textColor="@color/Burnt_Umber"
    android:textSize="34sp"
    tools:ignore="TextContrastCheck" />

<Button
    android:id="@+id/SixthPrahar"
    style="@style/Widget.Material3.Button.ElevatedButton"
    android:layout_width="match_parent"
    android:layout_height="117dp"
    android:text="@string/Sixth"
    android:textColor="@color/Burnt_Umber"
    android:textSize="34sp"
    tools:ignore="TextContrastCheck" />

<Button
    android:id="@+id/SeventhPrahar"
    style="@style/Widget.Material3.Button.ElevatedButton"
    android:layout_width="match_parent"
    android:layout_height="117dp"
    android:text="@string/Seventh"
    android:textColor="@color/Burnt_Umber"
    android:textSize="34sp" />

<Button
    android:id="@+id/EighthPrahar"
    style="@style/Widget.Material3.Button.ElevatedButton"
    android:layout_width="match_parent"
    android:layout_height="117dp"
    android:text="@string/Eighthth"
    android:textColor="@color/Burnt_Umber"
    android:textSize="34sp" />

</LinearLayout>
</ScrollView>
```

```
</androidx.constraintlayout.widget.ConstraintLayout>
```

Activity_search_list.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@color/Gold"
    tools:context=".SearchList">
    <ScrollView
        android:layout_width="match_parent"
        android:layout_height="match_parent">
        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:orientation="vertical"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toTopOf="parent">

            <TextView
                android:id="@+id/textView2"
                android:layout_width="match_parent"
                android:layout_height="76dp"
                android:text="@string/Index"
                android:textAlignment="center"
                android:textColor="@color/Burnt_Umber"
                android:textSize="48sp" />

            <Button
                android:id="@+id/allraag"
                style="@style/Widget.Material3.Button.ElevatedButton"
                android:layout_width="match_parent"
                android:layout_height="117dp"
                android:text="@string/All"
                android:textColor="@color/Burnt_Umber"
                android:textSize="34sp" />

            <Button
                android:id="@+id/thaat"
                style="@style/Widget.Material3.Button.ElevatedButton"
                android:layout_width="match_parent"
```

```

        android:layout_height="117dp"
        android:text="@string/Srch_by_Thaat"
        android:textColor="@color/Burnt_Umber"
        android:textSize="34sp" />

    <Button
        android:id="@+id/gayansamaya"
        style="@style/Widget.Material3.Button.ElevatedButton"
        android:layout_width="match_parent"
        android:layout_height="117dp"
        android:text="@string/Srch_by_GayanSamay"
        android:textColor="@color/Burnt_Umber"
        android:textSize="34sp" />

    <Button
        android:id="@+id/taal"
        style="@style/Widget.Material3.Button.ElevatedButton"
        android:layout_width="match_parent"
        android:layout_height="117dp"
        android:text="@string/tal"
        android:textColor="@color/Burnt_Umber"
        android:textSize="34sp" />

    <Button
        android:id="@+id/terminologies2"
        style="@style/Widget.Material3.Button.ElevatedButton"
        android:layout_width="match_parent"
        android:layout_height="117dp"
        android:text="@string/Terminologies"
        android:textColor="@color/Burnt_Umber"
        android:textSize="34sp" />

</LinearLayout>
</ScrollView>
</androidx.constraintlayout.widget.ConstraintLayout>

```

Activity_that_list.xml

```

<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@color/Gold"
    tools:context=".ThaatList">

    <LinearLayout
        android:layout_width="match_parent"

```



```
        android:layout_height="wrap_content"
        android:orientation="vertical"
        app:layout_constraintBottom_toTopOf="@+id/scrollView2"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent">

        <TextView
            android:id="@+id/ThhatNames"
            android:layout_width="match_parent"
            android:layout_height="76dp"
            android:text="@string/Srch_by_Thaat"
            android:textAlignment="center"
            android:textColor="#EF6C00"
            android:textSize="48sp"
            tools:ignore="TextContrastCheck" />
    </LinearLayout>

    <ScrollView
        android:id="@+id/scrollView2"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_marginTop="90dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent">

        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:orientation="vertical">

            <Button
                android:id="@+id/Kalyan"
                style="@style/Widget.Material3.Button.ElevatedButton"
                android:layout_width="match_parent"
                android:layout_height="117dp"
                android:text="@string/Kalyan"
                android:textColor="@color/Burnt_Umber"
                android:textSize="34sp" />

            <Button
                android:id="@+id/Bilawal"
                style="@style/Widget.Material3.Button.ElevatedButton"
                android:layout_width="match_parent"
                android:layout_height="117dp"
                android:text="@string/Bilawal"
                android:textColor="@color/Burnt_Umber"
                android:textSize="34sp" />

            <Button
                android:id="@+id/ThirdPrahar"
                style="@style/Widget.Material3.Button.ElevatedButton"
                android:layout_width="match_parent"
                android:layout_height="117dp"
```

```
    android:text="@string/Kafi"  
    android:textColor="@color/Burnt_Umber"  
    android:textSize="34sp" />
```

```
<Button  
    android:id="@+id/Khamaj"  
    style="@style/Widget.Material3.Button.ElevatedButton"  
    android:layout_width="match_parent"  
    android:layout_height="117dp"  
    android:text="@string/Khamaj"  
    android:textColor="@color/Burnt_Umber"  
    android:textSize="34sp" />
```

```
<Button  
    android:id="@+id/Marwa"  
    style="@style/Widget.Material3.Button.ElevatedButton"  
    android:layout_width="match_parent"  
    android:layout_height="117dp"  
    android:text="@string/Marwa"  
    android:textColor="@color/Burnt_Umber"  
    android:textSize="34sp"  
    tools:ignore="TextContrastCheck" />
```

```
<Button  
    android:id="@+id/Todi"  
    style="@style/Widget.Material3.Button.ElevatedButton"  
    android:layout_width="match_parent"  
    android:layout_height="117dp"  
    android:text="@string/Todi"  
    android:textColor="@color/Burnt_Umber"  
    android:textSize="34sp"  
    tools:ignore="TextContrastCheck" />
```

```
<Button  
    android:id="@+id/Poorvi"  
    style="@style/Widget.Material3.Button.ElevatedButton"  
    android:layout_width="match_parent"  
    android:layout_height="117dp"  
    android:text="@string/Poorvi"  
    android:textColor="@color/Burnt_Umber"  
    android:textSize="34sp" />
```

```
<Button  
    android:id="@+id/Bhairav"  
    style="@style/Widget.Material3.Button.ElevatedButton"  
    android:layout_width="match_parent"  
    android:layout_height="117dp"  
    android:text="@string/Bhairav"  
    android:textColor="@color/Burnt_Umber"  
    android:textSize="34sp" />
```

```
<Button  
    android:id="@+id/Bhairavi"  
    style="@style/Widget.Material3.Button.ElevatedButton"  
    android:layout_width="match_parent"  
    android:layout_height="117dp"  
    android:text="@string/Bhairavi"
```

```
        android:textColor="@color/Burnt_Umber"
        android:textSize="34sp" />

    <Button
        android:id="@+id/Asawari"
        style="@style/Widget.Material3.Button.ElevatedButton"
        android:layout_width="match_parent"
        android:layout_height="117dp"
        android:text="@string/Asawari"
        android:textColor="@color/Burnt_Umber"
        android:textSize="34sp" />

    </LinearLayout>
</ScrollView>

</androidx.constraintlayout.widget.ConstraintLayout>
```

All_raag_display.xml

```
<?xml version="1.0" encoding="utf-8" ?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@color/Gold"
    android:orientation="vertical"
    android:paddingBottom="5dp"
    android:paddingLeft="10dp"
    android:paddingRight="10dp"
    android:paddingTop="5dp">

    <TextView
        android:id="@+id/textraagas"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:textColor="@color/Burnt_Umber"
        android:textSize="20sp"
    />
</RelativeLayout>
```

Resource Files

Strings.xml

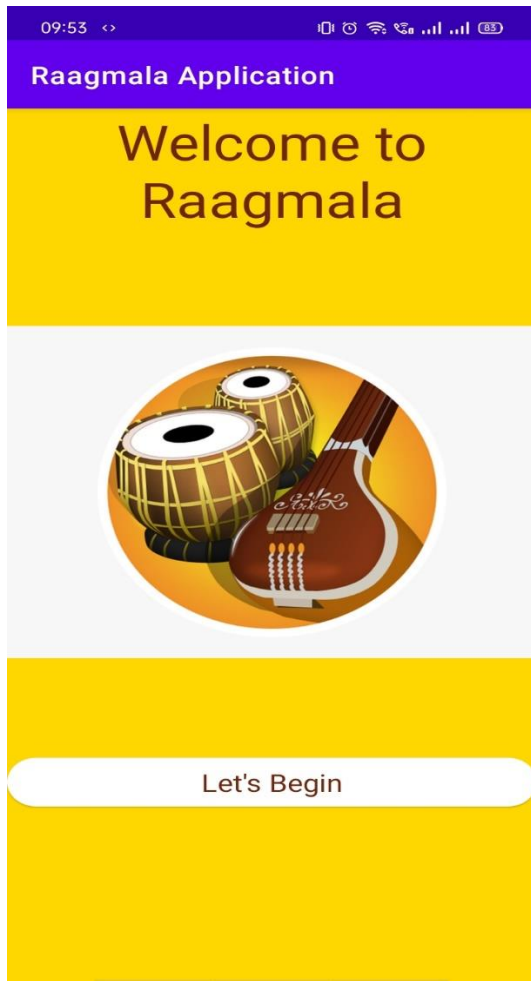
```
<resources>
    <string name="app_name">Raagmala Application</string>
    <string name="welcome">Welcome to Raagmala</string>
    <string name="Start">Let\'s Begin</string>
    <string name="todo">TODO</string>
    <string name="Index">Index</string>
    <string name="All">Various Ragas</string>
    <string name="Srch_by_Thaat">Thaat</string>
    <string name="Srch_by_GayanSamay">Gayan Samaya</string>
    <string name="Terminologies">Basic Musical Terminologies</string>
    <string name="title_activity_terminologies">Terminologies</string>
    <string name="tal">Taals</string>
    <!-- Strings used for fragments for navigation -->
    <string name="first_fragment_label">First Fragment</string>
    <string name="second_fragment_label">Second Fragment</string>
    <string name="next">Next</string>
    <string name="previous">Previous</string>

    <string name="hello_first_fragment">Hello first fragment</string>
    <string name="hello_second_fragment">Hello second fragment. Arg:
%1$s</string>
    <string name="title_activity_all_ragas">AllRagas</string>
    <string name="Kalyan">Kalyan</string>
    <string name="Bilawal">Bilawal</string>
    <string name="Kafi">Kafi</string>
    <string name="Todi">Todi</string>
    <string name="Marwa">Marwa</string>
    <string name="Khamaj">Khamaj</string>
    <string name="Poorvi">Poorvi</string>
    <string name="Bhairav">Bhairav</string>
    <string name="Bhairavi">Bhairavi</string>
    <string name="Asawari">Asawari</string>
    <string name="title_activity_display">Display</string>
    <string name="view_raag">Raags</string>
    <string name="First">Prahar 1 - 6am to 9am</string>
    <string name="Second">Prahar 2 - 9am to 12pm</string>
    <string name="Third">Prahar 3 - 12pm to 3pm</string>
    <string name="Forth">Prahar 4 - 3pm to 6pm</string>
    <string name="Fifth">Prahar 5 - 6pm to 9pm</string>
    <string name="Sixth"> Prahar 6 - 9pm to 12am</string>
    <string name="Seventh">Prahar 7 - 12am to 3am</string>
    <string name="Eightth">Prahar 8 - 3am to 6am</string>

</resources>
```

Colors.xml

```
<?xml version="1.0" encoding="utf-8"?>
<resources>
  <color name="purple_200">#FFBB86FC</color>
  <color name="purple_500">#FF6200EE</color>
  <color name="purple_700">#FF3700B3</color>
  <color name="teal_200">#FF03DAC5</color>
  <color name="teal_700">#FF018786</color>
  <color name="black">#FF000000</color>
  <color name="white">#FFFFFFFF</color>
  <color name="Gold">#FFD700</color>
  <color name="Burnt_Umber">#6E260E</color>
</resources>
```



This is a mainactivity page which welcomes the user.

09:53

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Raagmala Application

Index

Various Ragas

Thaat

Gayan Samaya

Taals

Basic Musical
Terminologies

Searchlistpage that helps user to select as per their choices.

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Raagmala Application

Thaat

Kalyan

Bilawal

Kafi

Khamaj

Marwa

Todi

Poorvi

Bhairav

Bhairavi

Asawari

Name of thhats. And it processes to view ragas based on these thhats.

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Raagmala Application

Gayan Samaya

Prahar 1 - 6am to
9am

Prahar 2 - 9am to
12pm

Prahar 3 - 12pm to
3pm

Prahar 4 - 3pm to
6pm

Prahar 5 - 6pm to
9pm

Prahar 6 - 9pm to
12am

Prahar 7 - 12am to
3am

Prahar 8 - 3am to
6am

Gayansamay. Means time of particular raag.

Testing and Validation Check

Testing And Validation checks Testing is an essential step to be concluded for the successful implementation of the project. It has been carried out that any deviation has occurred in the objective decided and the objective designed.

- **Program Testing:-** Program testing includes compiling each module of the program and checking if there is an error or not. If all modules are error-free then integrate all these modules and check for the errors. In this application, all modules are tested individually for an error-free program, all the modules are found to be error-free and then all modules are integrated the whole information system is tested for the error in the program and found error-free.
- **Integration Testing:-** System part is recognized as an important part of quality assurance. In this information system, all the components have been tested individually to find errors in the various area of the system and the integration of various parts of the system have been done. After integration, the whole system is also tested to ensure that system works after all implementation of modules. The purpose of validation of the system as its users in an operational environment will be implemented.
- **System Testing:-** System testing is executing a program to check logic changes made in it to find an error. Effective testing does not guarantee reliability.
- **Module Testing:-** Another way for system testing is module testing. In this module testing, all modules are tested separately to check for errors. If no errors are found in any of the modules then that module is considered a feasible module.

System Security Measures

System security is important because it keeps your information protected. The data of the user should not get leaked and the application should not let give chance for malware and viruses to enter the device.

In Android apps, data security is treated as the main concern. We observed this problem and found a solution that no user can change or update the data without permission.

Implementation, Evaluation, and Maintenance

The implementation phase is mainly concerned with user training, site, and preparation, and file conversion. It also involves the final testing of the system. During implementation, the component built during development is put into optional use. Following are the points that should be considered while doing implementation the application:

- 1) Testing, debugging, and documentation program.
- 2) Converting data from the old to the new system.
- 3) Giving training to the user about how to operate the system.
- 4) Developing operating procedures for the computer operating staff.
- 5) Establishing a maintenance procedure to repair and enhance the system.
- 6) Completing Documentation
- 7) Operating system on the user location and solving all the issues that occurred while operation.

Evaluation

After the implementation phase, another stage in project development is evaluation. After keeping the project in working condition for some time, all the errors that are showing in the computer program should be removed. The programmer needs to correct them so that the same errors should not be repeated. We should also get feedback from the user which are using it and ask them whether it is user-friendly or not. After evaluating the program and satisfying the needs of the user the program is maintained fully to give the same functionalities for what it was intended to be. This stage should be

implemented to regular check-up the errors with error handling techniques. This stage is the updating and correcting of the program to account for changing conditions or field experience. Proper testing and Documentation significantly reduce the frequency and extent of the required maintenance. Following are some steps involved in the evaluation of the project:

1. Correcting errors.
2. Newly occurred bugs.
3. Making necessary changes.
4. Enhance and modify the technique of system maintenance.

Maintenance

Maintenance is very crucial for the success of any application, proper maintenance of the application makes it a smooth working application. Maintenance is done basically for reasons i.e. to correct software errors that occur after the testing and implementation of the application when one uses it and another reason is to enhance the software capabilities in response to changing organizational needs. The user often requires additional features after he/she uses the application and becomes familiar with it. Some of the large companies give AMC(Annual Maintenance Contract) to other companies for regular maintenance of the software/application. The cost of maintenance increases the cost of the application/software. At a point in time, it becomes feasible to perform the tasks related to the maintenance of the software. The maintenance phase always occurs after the implementation of the application is done. It corrects all the previously undetected errors of the application and helps to do the update in the application which is required by the user. Maintenance is one of the stages in the SDLC(System Development Life Cycle). It is done for the estimation, controlling, and making modifications to the implemented system.

Future

Scope of the

Project

Future Scope of the project

1. We can play bandishes and kraals by Gansamaya.
2. We can add very famous bandish, Kayal's, Taranis and many more styles of Indian classical music like Thumri, Dhrupad, etc. of various singers.
3. We can provide Swar and Taal by facilitating Tanpura, Tabla, and Swarmandal instruments in different singing scales.
4. We can add singing lessons to the application.

Conclusion

Conclusion

Our project is only a humble venture to satisfy the needs to manage their project work. Several user-friendly coding has also been adopted. The objective of software planning is to provide a framework that enables the manager to make reasonable estimates made within a limited time frame at the beginning of the software project and should be updated regularly as the project progresses.

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A
PROJECT SYNOPSIS
ON
“Raagmala”

Submitted to

**G. S. COLLEGE OF COMMERCE & ECONOMICS, NAGPUR
AUTONOMOUS
In the Partial Fulfillment of**

B.Com. (Computer Application) Final Year

Synopsis Submitted by

Student Name

Harshita Kaithwas

Chinmayi Dongre

Under the Guidance of

Pravin J. Yadao



**G. S. COLLEGE OF COMMERCE & ECONOMICS, NAGPUR
AUTONOMOUS**

2021-2022

1. Introduction: (Write 4 to 5 lines)

Indian classical music is one of the oldest forms of music in the world. It has been around for thousands of years. It is quite fascinating as Indian classical music can be both structured and unstructured, rigid and flexible. It is a very vague term that covers a wide range of music, from the aural poetry of the Ragas to the intricate Alaaps and Swaras or from the explosive and powerful Khyal to the soft and subtle Thaata.

Raagmala is an Android-based mobile application that will help singers, musicians, and us listeners to explore and learn about this part of our culture.

2. Objectives of the project: (Write only 5 points)

1. This application is for providing information about Indian classical music.
2. To explore the beauty of Indian classical music.
3. To find Ragas by Gansamaya filter.

3. Project Category: Android-based Mobile Application

4. Tools/ Platform/ Languages to be used: Android studio for development, Java language, and SQL Database.

5. Scope of future application: (Write 4 to 5 points)

1. We can play bandish's and khyal's by Gansamaya.
2. We can add very famous bandish's, khyal's, Tarana's and many more styles of Indian classical music like Thumri, Dhrupad, etc. of various singers.
3. We can provide Swar and Taal by facilitating Tanpura, Tabla, and Swarmandal instruments in different singing scales.
4. We can add singing lessons to the application.

Submitted by,

**Chinmayi Dongre
Harshita Kaithwas**

Approved by,

**Prof. Pravin Yadao
Project Guide**

