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INTRODUCTION

INTRODUCTION

The success of the present system depends largely on the how accurately the problem is defined, theory investigated and properly carried out through the choice of the solution .My project application is based on painting and editing of Bitmap Images . **Paint Editor** is a basic graphics/**painting** utility.

Paint editor can be used to draw, color and edit different shapes . One can fill the multiple color ,it has great versatility and is useful for both beginners and professional graphic artists. Paint editor gives access to user for various controls i.e, shapes like circle ,rectangle and tools like pencils and **VIBGOUR .**

Paint editor enables users to draw anything with the help of the cursor. Paint can enable 'painting' by dragging the mouse and using different types of artistic brushes or pens that can give for example a PAINT EFFECT. The paint also 'runs out' on certain brushes after a period of time so that the brush needs to be put back into the color again, as if it was a real painting brush.

You just can draw the stuff with normal dots or multiple lines as per your choice. This is a runtime program and also, you can save your drawing. Hence, the user can simply use this app to kill their time with joy. This interesting project is in the C# programming language. Talking about the features of this Application, this C# application is designed to remove the boredness of any person. This project consist of many exiciting features like **VIBGOUR** i.e, rainbow colors. You can do things like drawing , drag different shapes ,fill colors and free handly writing texts. You can save your sketches and you can click on the restart to start from the beginning.

Also, the User Interface of this Application is pretty simple so that the user won't get any difficulties while working on it. So over all Paint editor is the simple raster graphics tool.

The user may also draw straight horizontal, vertical, or diagonal lines with the pencil tool, without the need of the straight line tool, by holding the particular pixel of the screen and dragging the tool. Moreover, it is also possible to change the colour of the particular line which drawn by the user . The principal features of paint editor are **simple drawing tools** that you can use to easily paint on a blank canvas or existing image. Beyond that, Paint includes various kinds of tools that can be used for drawing a elegant shape.

Paint editor is an **endearingly straightforward** application that offers very little in the way of advanced features. It is **really easy to use**, even for newbies.as user will not require any tips or manual for how to operate the same .The uncomplicated user interface featured tools i.e, menus appear on the top.

The joy of Paint editor is **simply playing around with the tools** and seeing what artworks you can create. With a few swooshes, drags and clicks, you can create **weird arrangements of overlapping shapes** filled with color. You can erase sections, paint and draw freehand lines, and add airbrush effects and text in a range of fonts. You can even add a transparent background.

While the tools available in Paint are limited, their artistic uses are as restricted as a user's imagination. Plus, there are **many merits** that reveal some of the surprisingly creative things that paint editor can do.

▪ **Tools used**

1. Pencil: When a user clicks on the pencil button and draws on the blank canvas the complier will color the every pixel through which pencil control had gone through .

2. Eraser: Allows the user to erase any thing drawn on the canvas.

3. Pick color : It shows the color dialog box to choose a color.

4. <u>Fill with color</u> :After user picks the color this control is used to fill that color inside the drawn shape.

5. <u>Shapes</u>: Shapes like line ,circle and rectangle helps user to drag and draw the shape on their own in the blank canvas.

6. <u>VIBGYOR</u> :User can fill the multiple colors (i.e, violet, indigo, blue, green, yellow, orange and red) in the particular shapes drawn on the blank canvas at the same time .

7. <u>Color Picker</u>: It shows the numerous colors in the menu bar through which a user can choose color of their choice.

8. <u>Save</u> : This button is used to save the drawn canvas.

9. <u>Clear</u>: Clears the whole screen.

<u>NOTEPAD</u>

Notepad is a <u>text editor</u>, i.e., an app specialized in editing <u>plain text</u>. It can edit <u>text files</u> (bearing the ".txt" <u>filename extension</u>) and compatible formats, such as <u>batch files</u>, <u>INI   files</u>,   and <u>log   files</u>.   Notepad   can   read   and   write   plain texts <u>encoded</u> in <u>ASCII</u>, <u>UTF-8</u>, and <u>UTF-16</u>. It supports both left-to-right and right-to-left based languages.

Notepad offers only the most basic text manipulation functions, such as finding and replacing text. Notepad is a texeditor tool used for editing plaint texts.

<u>OBJECTIVES</u>

OBJECTIVES

1. To provide **SECURITY-**

   We are using data encapsulation and class embedded access specifiers , it gives extra edge to security to our application.

2. Create **ROBUST APPLICATION**-

   As we have used exception handling it won't stop the code at the run time, thus reinforces the robustness of our application

3. Using **.NET FRAMEWORK** LIBRARY SUPPORT:

   C#.net gives abundance collection of libraries to make it convenient for the developer to develop the application, it provide robust libraries which helps user create elegant user interface along with secure web application.

4. User **CONVENIENCE**:

   User interface is so easy to use thus, it brings convenience to user while using application.

5. **Drawing** and **Manipulation**:

   Paint editor is a graphics creation program, It can be used for basic drawing and shape manipulation. Paint has a small set of brushes, pens and other drawing tools, Although, These features are sufficient to perform basic image manipulation.

PRELIMINARY SYSTEM ANALYSIS

PRELIMINARY SYSTEM ANALYSIS

All possible requirements of the system to be developed are captured in this phase. Requirements are set of functionalities and constraints that the end user (who will be using the system) expects from the system.

The requirements are gathered from the end-user by consultation, these requirements are analysed for their validity and the possibility of incorporating the requirements in the system to be development is also studied. Finally, a requirement specification document is created.

Each and every application has a need to be developed in such a way that the information which is to be given must be easily understandable and presentable.

Every system has a common Things and that are:-

• It is organized combination of different components.

• They are independent and inter-related , They work for common objectives.

Thus, in order to carry out project successfully it should be analysed properly purposes of preliminary system analysis is to find that whatever the project will be successful or not. The project will be possible with all available resources like cost, time, human resources current business environment and technology. The System analysis is the method where the whole system is studied very in detail and as the basis the analysis of a complete product is presented in front of the users.

The phases which should be studied in the preliminary system are as-

• Identification of Need

• Preliminary Investigation

• Feasibility Study ☐ Need of new system.

• Flaws in present System.

Identification of Need :

Before working on any system, management must analyse the need of prospective users. System should be according to the requirements of users. Management must know what the problem is before so that same can be solved. We can find out the real problem of the existing system. With clear understanding of the problem, we can take lessons make it advantage of current system. So it is necessary to identify the actual problem.

In order to carry out any project successfully the first and foremost requirement is to identify the need to carry out the project. The system analyst should first of all derive the needs or the objective of the project. This helps him to make analyst that whether the particular system that is currently undertaken is feasible or not.

The project **PAINT EDITOR** is opted for promoting the joyfull drawing paint application. In this application, we have created a menustrip in ordere to let the user draw any kind of drawing or art onto the screen using the controls provided on the menu strip.

Preliminary Investigation:

This is the stage where the first investigation is being carried out by the developer who actually wants to develop a project. Any person related with the system initiate the request. This problem is investigated in the preliminary investigation. This is the stage where the need and requirement of the user identified being investigated and develop a new system as per user requirements. This activity has three parts Request Certification, feasibility Study and Request approval. We have seen various paint application and we have found that it contains old controls which are not updated , we have tried to introduce some new controls to make it more enthralling.

Feasibility Study :

This is the stage where the feasibility is being studied by the developer for the project. The feasibility study is useful to evaluate the cost and benefit of the new system requested. The feasibility study tries to anticipate future scenarios of the software development. It evaluates the benefits of the new system. The aim of the feasibility study is to see whether it is possible to develop a new system at a reasonable cost. At the end of the feasibility study a decision is taken whether to proceed or not. overall Feasibility study is the process to determine various solutions of the problem and then picking up one of the best solution. It is measure of how beneficial the development of information system will be to an organization.

The feasibility study has the following objectives:-

. Defines the problem clearly.

- Effective use of resources.

- Analyse the cost and benefit.

A feasibility study looks at the viability of an idea with an emphasis on identifying potential problems. The feasibility study tries to anticipate future scenarios of the software development.

1) Technical feasibility: The technical feasibility always focuses on the existing computer hardware and software. This is also includes the need for more hardware and software and the possibility of installing such facility. Technical feasibility concentrates on aspect of project to find out the various hardware and software requirements for the project. In technical feasibility the following issues are taken into consideration:-

- Whether the required technology is available or not.

- Whether the required resources are available like management programmers, tester & debuggers software and hardware. Once the technical feasibility is established, it is

important to consider the monetary factors also, since it might happen that developing a particular system may be technically possible but it may require huge investments and benefits may be less. For evaluating this economic feasibility of the proposed system it carried out.

2) <u>Economical Feasibility</u>: Economical analysis is the most frequently used method for evaluating the effectiveness of candidates system. It is also called as cost benefit analysis, the procedure is to determine the benefit and saving that are expected from candidate system and compare them with cost. It benefits outweigh cost then decision is made to design and implement system. It becomes easy to manage such records. Economical Feasibility is helpful for finding the system development cost and benefit, it checks weather it is justifiable or not, for that it checks the software and hardware costs etc.

3) <u>Operational feasibility</u>: Operational feasibility considers the acceptability of the system. It checks weather system will be used if it is developed and implemented and the user of the new system will able to handle the system or not. The operational feasibility mostly look to the part that how easily the project can put into the action it looks over that, is there any difficulty on loading of this project or is the project operating smoothly afterwards. This project is operationally feasibility on the screen itself.

While making any project it is necessary to study the operational features.

Need of New System:

New system is been prepared keeping in mind that it deals effectively & more flexible than the existing system. New system & technologies may allow faster processing, more storage, and lower costs than ever before. Today, when everything is becoming more and more computerized, one may feel that the task of implementing various things should also be done automatically using the computer programs.

The need of new system arises due to the following reasons:

- To introduce a new objects and functionality in the system

- To improve the user experience via fascinating user interface.

- For creating a friendlier environment, than the previous existing system for the users.

PROJECTCATEGORY

Project Category

A category of project is Desktop based application named "Paint Editor". This project is wholly developed using c#.net. & uses graphics and bitmap class.

Programming Language:

C#.NET

C# is a general purpose , multi paradigm programming language .C# encompasses static typing , strong typing , lexically. Scoped , imperative , declarative , functional , generic , object oriented (class based) ,and component oriented programming disciplines.

C# was designed by ANDERS HEJLSBERG from Microsoft in 2000 and was later approved as an international standard by ECMA in 2002 and ISO in 2003.Microsoft introduced C# along with .NET Framework and Visual Studio , both of which were closed source. At the time , Microsoft had no open source products. Four years later, in 2004, free and open source project called mono began, providing cross platform compiler and runtime environment for the C# programming language. A decade later, Microsoft released VISUAL STUDIO CODE (code editor), ROSYN (compiler), and THE unified >NET platform (software framework), all of which support C# and are free, open-source, and cross-platform. Mono also joined Microsoft but was not merged into .NET.

As of 2021, the most recent version of the language is C# 10.0, which was released in 2021 in .NET 6.0.

C# Basic Syntax Rules:

- All statements end in a semicolon (;)
- The spaces in the statements are ignored. That is, when we place more than one space between keywords in the compiler, it simply ignores the other spaces.

- It is a case sensitive language, which means that it is distinguished between upper and lower case. Example: a variable called myvariable is not the same as another called myvariable.

- It is a static typing language, which means that when declaring the variables, the data type must be defined, which is, for example: if we are going to create a variable that stores a numeric integer, we first place the l int data type and then the variable name, which would be as follows: int variablename; You can see a little more about this in my article on variables and data types.

- Comments can be included within the code. Comments allow us to write additional information about our code that can help other programmers.

SOFTWARE AND HARDWARE REQUIREMENT SPECIFICATION

SOFTWARE AND HARDWARE REQUIREMENT SPECFICATION

❖ HARDWARE:

Hardware is a device which helps in the execution of software. We do require the following specifications on computer for the execution of our project.

• RAM   -   4GB

• HARDWARE -   500GB or More

• INPUT   -   Keyboard and Mouse

❖ SOFTWARE:

Computer software, or simply software, is a collection of data or computer instructions that tell the computer how to work. This is in contrast to physical hardware, from which the system is built and actually performs the work.

• Visual studio
• .net desktop development packages
• Internet explorer
• Google chrome

❖ OPERATING SYSTEM:

• Windows 7

• Windows 10

Detailed System

Analysis

ENTITY RELEATIONSHIP DIAGRAM

START

**PARENT CONTROL PANEL
CONTAINER**

PENCIL
BUTTON
CONTROL

COLOR
PICKER
PICTURE
BOX
CONTROL

COLOR
BUTTON
CONTROL

RECTANG
LE
BUTTON
CONTROL

VIBGYOR
BUTTON
CONTROL

ERASER
BUTTON
CONTROL

CIRCLE
BUTTON
CONTROL

STOP
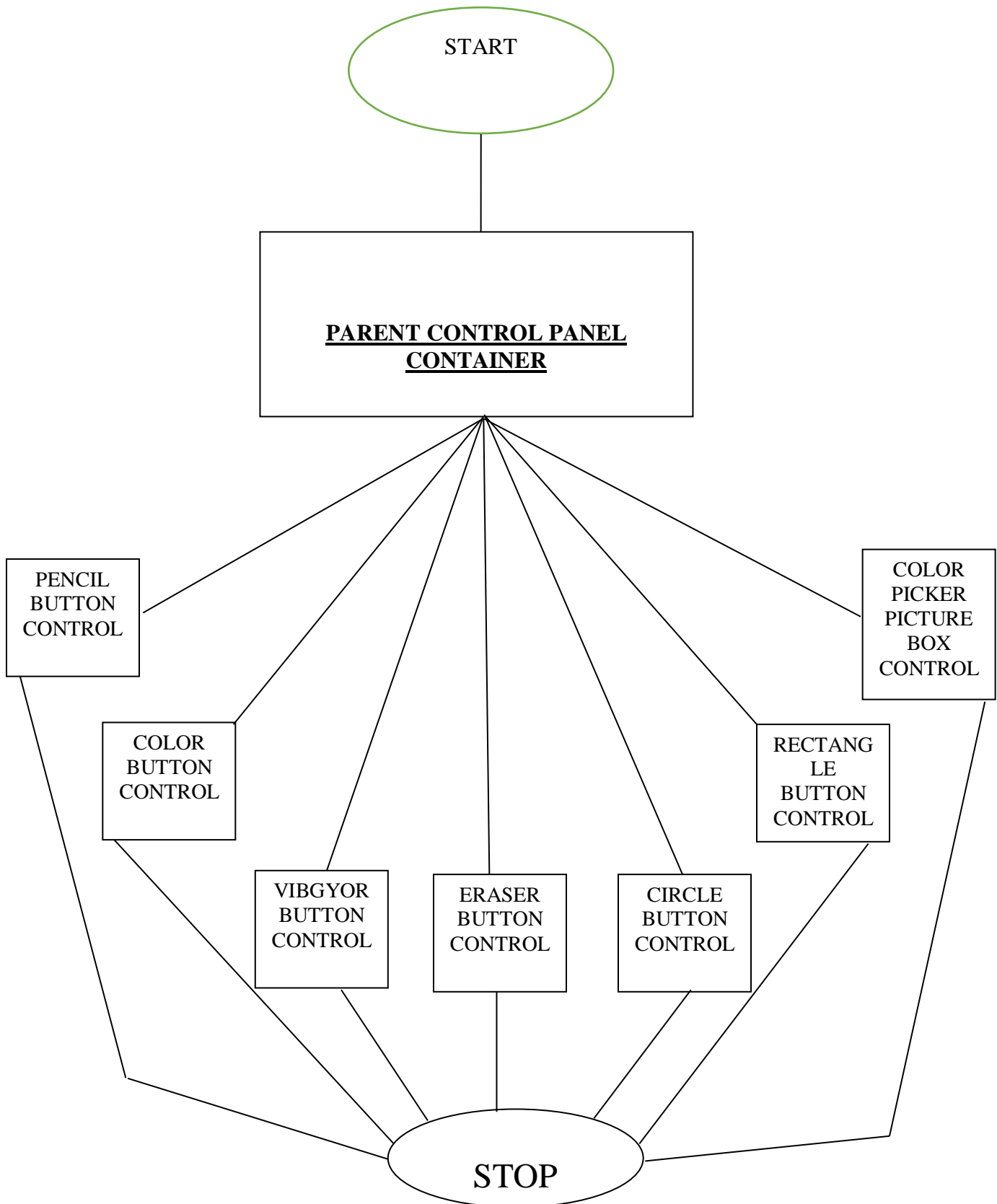
SYSTEM DESIGN

Source Code

Form1.cs :

```csharp
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Drawing.Imaging;
using System.Linq;
using System.Text;
using System.Windows.Forms;

namespace WindowsFormsApplication1
{
public partial class form1 : Form
{
public form1()
{
InitializeComponent();
this.Width = 1000;
this.Height = 700;
bm = new Bitmap(pic.Width, pic.Height);
g = Graphics.FromImage(bm);
g.Clear(Color.White);
pic.Image = bm;

}
Bitmap bm;
Graphics g;
bool paint = false;
Point px, py;
Pen p=new Pen(Color.Black,1);
Pen erase = new Pen(Color.White, 10);
int index;
int x, y, sX, sY, cX, cY;
ColorDialog cd = new ColorDialog();
Color new_color;
// Color new_color;

private void pencil_Click(object sender, EventArgs e)
```

```csharp
{
index = 1;
}

private void eraser_Click(object sender, EventArgs e)
{
index = 2;
}

private void ellipse_Click(object sender, EventArgs e)
{
index = 3;
}

private void rect_Click(object sender, EventArgs e)
{
index = 4;
}

private void line_Click(object sender, EventArgs e)
{
index = 5;
}


private void pic_MouseDown(object sender, MouseEventArgs e)
{
paint = true;
py = e.Location;
cX = e.X;
cY = e.Y;
}

private void pic_MouseMove(object sender, MouseEventArgs e)
{
if (paint)
{
if (index == 1)
{
```

```csharp
px = e.Location;
g.DrawLine(p, px, py);
py = px;
}
if (index == 2)
{
px = e.Location;
g.DrawLine(erase, px, py);
py = px;
}
}
pic.Refresh();
x = e.X;
y = e.Y;
sX = e.X - cX;
sY = e.Y - cY;
}

private void pic_MouseUp(object sender, MouseEventArgs e)
{
paint = false;
sX = x - cX;
sY = y - cY;
if (index == 3)
{
g.DrawEllipse(p, cX, cY, sX, sY);
}
if (index == 4)
{
g.DrawRectangle(p, cX, cY, sX, sY);
}
if (index == 5)
{
g.DrawLine(p, cX, cY, x, y);
}
}


private void pic_Paint(object sender, PaintEventArgs e)
{
```

```csharp
Graphics g = e.Graphics;
if (paint)
{
if (index == 3)
{
g.DrawEllipse(p, cX, cY, sX, sY);
}
if (index == 4)
{
g.DrawRectangle(p, cX, cY, sX, sY);
}
if (
index == 5)
{
g.DrawLine(p, cX, cY, x, y);
}
}
}

private void button1_Click(object sender, EventArgs e)
{
g.Clear(Color.White);
pic.Image = bm;
}

private void save_Click(object sender, EventArgs e)
{
var sfd = new SaveFileDialog();
sfd.Filter = "Image(*.jpg)|*.jpg|(*.*|*.*";
if (sfd.ShowDialog() == DialogResult.OK)
{
Bitmap btm = bm.Clone(new Rectangle(0, 0, pic.Width, pic.Height), bm.PixelFormat);
btm.Save(sfd.FileName,ImageFormat.Jpeg);
MessageBox.Show("Image saved successfully..");
}

}

private void color_Click(object sender, EventArgs e)
{
```

```csharp
cd.ShowDialog();
new_color = cd.Color;
pic_color.BackColor = cd.Color;
p.Color = cd.Color;
}


private void color_picker_MouseClick(object sender, MouseEventArgs e)
{
Point = set_point(color_picker, e.Location);
pic_color.BackColor = ((Bitmap)color_picker.Image).GetPixel(point.X, point.Y);
new_color = pic_color.BackColor;
p.Color = pic_color.BackColor;

}
static Point set_point(PictureBox pb,Point pt)
{
float pX= 1f * pb.Image.Width / pb.Width ;

float pY= 1f * pb.Image.Height / pb.Height ;
return new Point((int)(pt.X * pX), (int)(pt.Y * pY));

}

private void pic_MouseClick(object sender, MouseEventArgs e)
{
if (index == 7)
{
Point = set_point(pic, e.Location);
Fill(bm, point.X, point.Y, new_color);
}
if (index == 7 && count == 1)
{
Point = e.Location;//set_point(pic, e.Location);
// Console.WriteLine(point.X + " " + point.Y);
Fill(bm, point.X, point.Y);
}


}
public void Fill(Bitmap bm, int x, int y)
```

```
{
Color old_color = bm.GetPixel(x, y);
// Console.WriteLine(old_color);
Stack<Point> pixel = new Stack<Point>();
// Console.WriteLine(pixel.Count());


pixel.Push(new Point(x, y));

/*  Console.WriteLine(pixel.Count());
while (pixel.Count> 0)
{
Point pt = pixel.Pop();
Console.WriteLine(pt.X + "\n" + pt.Y);
}
Console.WriteLine(pixel.Count());    */


bm.SetPixel(x, y, Color.Violet);
// if (old_color == new_clr) return;
while (pixel.Count > 0)
{
Point pt = (Point)pixel.Pop();
if (pt.X > 0 && pt.Y > 0 && pt.X < bm.Width - 1 && pt.Y < bm.Height - 1)
{
// Console.WriteLine(pt.X + "\n" + pt.Y);
validate(bm, pixel, pt.X - 1, pt.Y, old_color);
validate(bm, pixel, pt.X, pt.Y - 1, old_color);
validate(bm, pixel, pt.X + 1, pt.Y, old_color);
validate(bm, pixel, pt.X, pt.Y + 1, old_color);
}
}
}
int i=0,n=0;
string[] col = { "Violet", "Indigo", "Blue", "Green", "Yellow", "Orange", "Red" };

private void validate(Bitmap bm, Stack<Point>sp, int x, int y,Color old_color)
{
if (n==40)
{
```

```
i++;
n=0;
if(i==7)
{
i = 0;
}
}
Color cx = bm.GetPixel(x, y);
if (cx == old_color)
{
sp.Push(new Point(x, y));
bm.SetPixel(x, y,ColorTranslator.FromHtml(col[i]));
// Console.WriteLine(col[i]);


}
n++;

// pic.Refresh();
}




public void Fill(Bitmap bm,int x,int y,Color new_clr)
{
Color old_color = bm.GetPixel(x, y);
Stack<Point> pixel = new Stack<Point>();
pixel.Push(new Point(x, y));
bm.SetPixel(x, y, new_clr);
if (old_color == new_clr) return;
while(pixel.Count>0)
{
Point pt = (Point)pixel.Pop();
if(pt.X>0 &&pt.X>0 &&pt.X<bm.Width-1 &&pt.Y<bm.Height-1)
{
validate(bm, pixel, pt.X - 1, pt.Y, old_color, new_clr);
validate(bm, pixel, pt.X, pt.Y-1, old_color, new_clr);
validate(bm, pixel, pt.X + 1, pt.Y, old_color, new_clr);
validate(bm, pixel, pt.X, pt.Y+1, old_color, new_clr);

}
```

```csharp
}
}
private void validate(Bitmap bm,Stack<Point>sp,int x,int y,Color old_color,Color new_color)
{


try
{


Color cx = bm.GetPixel(x, y);



if (cx == old_color)
{
sp.Push(new Point(x, y));
bm.SetPixel(x, y, new_color);
}
}
catch
{
MessageBox.Show("something went wrong");
}




}

private void button2_Click(object sender, EventArgs e)
{
index = 7;
}

private void pic_Click(object sender, EventArgs e)
{

}

private void color_picker_Click(object sender, EventArgs e)
{
```

```
}
int count;

private void rgb_Click(object sender, EventArgs e)
{
count = 1;
}
}
}
```

```csharp
namespace WindowsFormsApplication1
{
    partial class form1
    {
        /// <summary>
        /// Required designer variable.
        /// </summary>
        private System.ComponentModel.IContainer components = null;

        /// <summary>
        /// Clean up any resources being used.
        /// </summary>
        /// <param name="disposing">true if managed resources should be disposed; otherwise,
false.</param>
        protected override void Dispose(bool disposing)
        {
            if (disposing && (components != null))
            {
                components.Dispose();
            }
            base.Dispose(disposing);
        }

        #region Windows Form Designer generated code

        /// <summary>
        /// Required method for Designer support - do not modify
        /// the contents of this method with the code editor.
        /// </summary>
        private void InitializeComponent()
        {
            this.panel1 = new System.Windows.Forms.Panel();
            this.rgb = new System.Windows.Forms.Button();
            this.button2 = new System.Windows.Forms.Button();
            this.color_picker = new System.Windows.Forms.PictureBox();
            this.color = new System.Windows.Forms.Button();
            this.save = new System.Windows.Forms.Button();
            this.button1 = new System.Windows.Forms.Button();
```

```
this.line = new System.Windows.Forms.Button();
this.rect = new System.Windows.Forms.Button();
this.ellipse = new System.Windows.Forms.Button();
this.eraser = new System.Windows.Forms.Button();
this.pencil = new System.Windows.Forms.Button();
this.pic_color = new System.Windows.Forms.Button();
this.panel2 = new System.Windows.Forms.Panel();
this.pic = new System.Windows.Forms.PictureBox();
this.panel1.SuspendLayout();
((System.ComponentModel.ISupportInitialize)(this.color_picker)).BeginInit();
((System.ComponentModel.ISupportInitialize)(this.pic)).BeginInit();
this.SuspendLayout();
//
// panel1
//
this.panel1.Anchor =
((System.Windows.Forms.AnchorStyles)(((System.Windows.Forms.AnchorStyles.Top |
System.Windows.Forms.AnchorStyles.Left)
        | System.Windows.Forms.AnchorStyles.Right)));
this.panel1.BackColor = System.Drawing.Color.FromArgb(((int)(((byte)(64)))),
((int)(((byte)(64)))), ((int)(((byte)(64)))));
this.panel1.Controls.Add(this.rgb);
this.panel1.Controls.Add(this.button2);
this.panel1.Controls.Add(this.color_picker);
this.panel1.Controls.Add(this.color);
this.panel1.Controls.Add(this.save);
this.panel1.Controls.Add(this.button1);
this.panel1.Controls.Add(this.line);
this.panel1.Controls.Add(this.rect);
this.panel1.Controls.Add(this.ellipse);
this.panel1.Controls.Add(this.eraser);
this.panel1.Controls.Add(this.pencil);
this.panel1.Controls.Add(this.pic_color);
this.panel1.Location = new System.Drawing.Point(0, 27);
this.panel1.Name = "panel1";
this.panel1.Size = new System.Drawing.Size(851, 107);
this.panel1.TabIndex = 0;
//
// rgb
//
```

```
        this.rgb.Location = new System.Drawing.Point(763, 57);
        this.rgb.Name = "rgb";
        this.rgb.Size = new System.Drawing.Size(75, 23);
        this.rgb.TabIndex = 3;
        this.rgb.Text = "VIBGYOR";
        this.rgb.UseVisualStyleBackColor = true;
        this.rgb.Click += new System.EventHandler(this.rgb_Click);
        //
        // button2
        //
        this.button2.Image                                                              =
global::WindowsFormsApplication1.Properties.Resources.fill_colour3;
        this.button2.Location = new System.Drawing.Point(552, 33);
        this.button2.Name = "button2";
        this.button2.Size = new System.Drawing.Size(56, 49);
        this.button2.TabIndex = 3;
        this.button2.UseVisualStyleBackColor = true;
        this.button2.Click += new System.EventHandler(this.button2_Click);
        //
        // color_picker
        //
        this.color_picker.Image                                                         =
global::WindowsFormsApplication1.Properties.Resources.color_picker1;
        this.color_picker.Location = new System.Drawing.Point(628, 12);
        this.color_picker.Name = "color_picker";
        this.color_picker.Size = new System.Drawing.Size(129, 71);
        this.color_picker.TabIndex = 3;
        this.color_picker.TabStop = false;
        this.color_picker.Click += new System.EventHandler(this.color_picker_Click);
        this.color_picker.MouseClick                        +=                      new
System.Windows.Forms.MouseEventHandler(this.color_picker_MouseClick);
        //
        // color
        //
        this.color.Image = global::WindowsFormsApplication1.Properties.Resources.colori;
        this.color.Location = new System.Drawing.Point(439, 33);
        this.color.Name = "color";
        this.color.Size = new System.Drawing.Size(53, 47);
        this.color.TabIndex = 3;
        this.color.UseVisualStyleBackColor = true;
```

33

```
this.color.Click += new System.EventHandler(this.color_Click);
//
// save
//
this.save.Location = new System.Drawing.Point(13, 12);
this.save.Name = "save";
this.save.Size = new System.Drawing.Size(64, 30);
this.save.TabIndex = 3;
this.save.Text = "save";
this.save.UseVisualStyleBackColor = true;
this.save.Click += new System.EventHandler(this.save_Click);
//
// button1
//
this.button1.ForeColor = System.Drawing.Color.Black;
this.button1.Location = new System.Drawing.Point(13, 48);
this.button1.Name = "button1";
this.button1.Size = new System.Drawing.Size(64, 33);
this.button1.TabIndex = 6;
this.button1.Text = "clear";
this.button1.UseVisualStyleBackColor = true;
this.button1.Click += new System.EventHandler(this.button1_Click);
//
// line
//
this.line.ForeColor = System.Drawing.Color.Black;
this.line.Image = global::WindowsFormsApplication1.Properties.Resources.line;
this.line.Location = new System.Drawing.Point(498, 33);
this.line.Name = "line";
this.line.Size = new System.Drawing.Size(48, 47);
this.line.TabIndex = 6;
this.line.UseVisualStyleBackColor = true;
this.line.Click += new System.EventHandler(this.line_Click);
//
// rect
//
this.rect.ForeColor = System.Drawing.Color.Black;
this.rect.Image = global::WindowsFormsApplication1.Properties.Resources.rectangle1;
this.rect.Location = new System.Drawing.Point(380, 33);
this.rect.Name = "rect";
```

```
this.rect.Size = new System.Drawing.Size(53, 47);
this.rect.TabIndex = 5;
this.rect.UseVisualStyleBackColor = true;
this.rect.Click += new System.EventHandler(this.rect_Click);
//
// ellipse
//
this.ellipse.ForeColor = System.Drawing.Color.Black;
this.ellipse.Image = global::WindowsFormsApplication1.Properties.Resources.circle1;
this.ellipse.Location = new System.Drawing.Point(322, 33);
this.ellipse.Name = "ellipse";
this.ellipse.Size = new System.Drawing.Size(52, 47);
this.ellipse.TabIndex = 4;
this.ellipse.UseVisualStyleBackColor = true;
this.ellipse.Click += new System.EventHandler(this.ellipse_Click);
//
// eraser
//
this.eraser.ForeColor = System.Drawing.Color.Black;
this.eraser.Image = global::WindowsFormsApplication1.Properties.Resources.erser1;
this.eraser.Location = new System.Drawing.Point(261, 33);
this.eraser.Name = "eraser";
this.eraser.Size = new System.Drawing.Size(55, 47);
this.eraser.TabIndex = 3;
this.eraser.UseVisualStyleBackColor = true;
this.eraser.Click += new System.EventHandler(this.eraser_Click);
//
// pencil
//
this.pencil.ForeColor = System.Drawing.Color.Black;
this.pencil.Image = global::WindowsFormsApplication1.Properties.Resources.pencil1;
this.pencil.Location = new System.Drawing.Point(209, 33);
this.pencil.Name = "pencil";
this.pencil.Size = new System.Drawing.Size(46, 47);
this.pencil.TabIndex = 1;
this.pencil.UseVisualStyleBackColor = true;
this.pencil.Click += new System.EventHandler(this.pencil_Click);
//
// pic_color
//
```

```
        this.pic_color.ForeColor = System.Drawing.Color.White;
        this.pic_color.Location = new System.Drawing.Point(118, 33);
        this.pic_color.Name = "pic_color";
        this.pic_color.Size = new System.Drawing.Size(46, 33);
        this.pic_color.TabIndex = 0;
        this.pic_color.UseVisualStyleBackColor = true;
        //
        // panel2
        //
        this.panel2.BackColor        =        System.Drawing.Color.FromArgb(((int)(((byte)(64)))),
((int)(((byte)(64)))), ((int)(((byte)(64)))));
        this.panel2.Dock = System.Windows.Forms.DockStyle.Bottom;
        this.panel2.Location = new System.Drawing.Point(0, 472);
        this.panel2.Name = "panel2";
        this.panel2.Size = new System.Drawing.Size(851, 32);
        this.panel2.TabIndex = 1;
        //
        // pic
        //
        this.pic.Anchor                                                                    =
((System.Windows.Forms.AnchorStyles)(((((System.Windows.Forms.AnchorStyles.Top        |
System.Windows.Forms.AnchorStyles.Bottom)
            | System.Windows.Forms.AnchorStyles.Left)
            | System.Windows.Forms.AnchorStyles.Right)));
        this.pic.Location = new System.Drawing.Point(0, 0);
        this.pic.Name = "pic";
        this.pic.Size = new System.Drawing.Size(851, 504);
        this.pic.TabIndex = 2;
        this.pic.TabStop = false;
        this.pic.Click += new System.EventHandler(this.pic_Click);
        this.pic.Paint += new System.Windows.Forms.PaintEventHandler(this.pic_Paint);
        this.pic.MouseClick                            +=                            new
System.Windows.Forms.MouseEventHandler(this.pic_MouseClick);
        this.pic.MouseDown                           +=                            new
System.Windows.Forms.MouseEventHandler(this.pic_MouseDown);
        this.pic.MouseMove                           +=                            new
System.Windows.Forms.MouseEventHandler(this.pic_MouseMove);
        this.pic.MouseUp                             +=                            new
System.Windows.Forms.MouseEventHandler(this.pic_MouseUp);
        //
```

```csharp
            // form1
            //
            this.AutoScaleDimensions = new System.Drawing.SizeF(6F, 13F);
            this.AutoScaleMode = System.Windows.Forms.AutoScaleMode.Font;
            this.ClientSize = new System.Drawing.Size(851, 504);
            this.Controls.Add(this.panel2);
            this.Controls.Add(this.panel1);
            this.Controls.Add(this.pic);
            this.Name = "form1";
            this.StartPosition = System.Windows.Forms.FormStartPosition.CenterScreen;
            this.Text = "PaintEditor";
            this.panel1.ResumeLayout(false);
            ((System.ComponentModel.ISupportInitialize)(this.color_picker)).EndInit();
            ((System.ComponentModel.ISupportInitialize)(this.pic)).EndInit();
            this.ResumeLayout(false);

        }

        #endregion

        private System.Windows.Forms.Panel panel1;
        private System.Windows.Forms.Panel panel2;
        private System.Windows.Forms.PictureBox pic;
        private System.Windows.Forms.Button eraser;
        private System.Windows.Forms.Button pencil;
        private System.Windows.Forms.Button pic_color;
        private System.Windows.Forms.Button line;
        private System.Windows.Forms.Button rect;
        private System.Windows.Forms.Button ellipse;
        private System.Windows.Forms.Button button1;
        private System.Windows.Forms.Button save;
        private System.Windows.Forms.Button color;
        private System.Windows.Forms.PictureBox color_picker;
        private System.Windows.Forms.Button button2;
        private System.Windows.Forms.Button rgb;
}
}
```

Program.cs :

```csharp
using System;
using System.Collections.Generic;
using System.Linq;
using System.Windows.Forms;

namespace WindowsFormsApplication1
{
    static class Program
    {
        /// <summary>
        /// The main entry point for the application.
        /// </summary>
        [STAThread]
        static void Main()
        {
            Application.EnableVisualStyles();
            Application.SetCompatibleTextRenderingDefault(false);
            Application.Run(new form1());
        }
    }
}
```

Text Editor

source code

Form1.Designer.cs:

```csharp
namespace notepad
{
  public partial class Form1
  {
    /// <summary>
    /// Required designer variable.
    /// </summary>
    private System.ComponentModel.IContainer components = null;

    /// <summary>
    /// Clean up any resources being used.
    /// </summary>
    /// <param name="disposing">true if managed resources should be disposed;
otherwise, false.</param>
    protected override void Dispose(bool disposing)
    {
      if (disposing && (components != null))
      {
        components.Dispose();
      }
      base.Dispose(disposing);
    }

    #region Windows Form Designer generated code
```

```csharp
/// <summary>

/// Required method for Designer support - do not modify

/// the contents of this method with the code editor.

/// </summary>

private void InitializeComponent()

{

    System.ComponentModel.ComponentResourceManager resources = new
System.ComponentModel.ComponentResourceManager(typeof(Form1));

    this.menuStrip2 = new System.Windows.Forms.MenuStrip();

    this.fileToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();

    this.newToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();

    this.openToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();

    this.saveToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();

    this.saveAsToolStripMenuItem                        =                        new
System.Windows.Forms.ToolStripMenuItem();

    this.printPreviewToolStripMenuItem                   =                        new
System.Windows.Forms.ToolStripMenuItem();

    this.toolStripSeparator1 = new System.Windows.Forms.ToolStripSeparator();

    this.printToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();

    this.toolStripSeparator3 = new System.Windows.Forms.ToolStripSeparator();

    this.exitToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();

    this.editToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();

    this.undoToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();

    this.redoToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();

    this.toolStripSeparator2 = new System.Windows.Forms.ToolStripSeparator();

    this.cutToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();

    this.copyToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();

    this.pasteToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();

    this.deleteToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();
```

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```
this.selectAllToolStripMenuItem                                    = new
System.Windows.Forms.ToolStripMenuItem();

this.formatToolStripMenuItem                                       = new
System.Windows.Forms.ToolStripMenuItem();

this.wordWrapToolStripMenuItem                                     = new
System.Windows.Forms.ToolStripMenuItem();

this.fontToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();

this.highlightTextToolStripMenuItem                                = new
System.Windows.Forms.ToolStripMenuItem();

this.helpToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();

this.aboutToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();

this.richTextBox1 = new System.Windows.Forms.RichTextBox();

this.openFileDialog1 = new System.Windows.Forms.OpenFileDialog();

this.printPreviewDialog1 = new System.Windows.Forms.PrintPreviewDialog();

this.printDocument1 = new System.Drawing.Printing.PrintDocument();

this.printDialog1 = new System.Windows.Forms.PrintDialog();

this.fontDialog1 = new System.Windows.Forms.FontDialog();

this.paintEditorToolStripMenuItem                                  = new
System.Windows.Forms.ToolStripMenuItem();

this.paintEditorToolStripMenuItem1                                 = new
System.Windows.Forms.ToolStripMenuItem();

this.menuStrip2.SuspendLayout();

this.SuspendLayout();

//

// menuStrip2

//

this.menuStrip2.ImageScalingSize = new System.Drawing.Size(20, 20);

this.menuStrip2.Items.AddRange(new System.Windows.Forms.ToolStripItem[] {

this.fileToolStripMenuItem,

this.editToolStripMenuItem,
```

```csharp
            this.formatToolStripMenuItem,

            this.helpToolStripMenuItem,

            this.paintEditorToolStripMenuItem1});

            this.menuStrip2.Location = new System.Drawing.Point(0, 0);

            this.menuStrip2.Name = "menuStrip2";

            this.menuStrip2.Size = new System.Drawing.Size(800, 28);

            this.menuStrip2.TabIndex = 2;

            this.menuStrip2.Text = "menuStrip2";

            //

            // fileToolStripMenuItem

            //

            this.fileToolStripMenuItem.DropDownItems.AddRange(new
System.Windows.Forms.ToolStripItem[] {

            this.newToolStripMenuItem,

            this.openToolStripMenuItem,

            this.saveToolStripMenuItem,

            this.saveAsToolStripMenuItem,

            this.printPreviewToolStripMenuItem,

            this.toolStripSeparator1,

            this.printToolStripMenuItem,

            this.toolStripSeparator3,

            this.exitToolStripMenuItem});

            this.fileToolStripMenuItem.Name = "fileToolStripMenuItem";

            this.fileToolStripMenuItem.Size = new System.Drawing.Size(46, 24);

            this.fileToolStripMenuItem.Text = "&File";

            //

            // newToolStripMenuItem

            //

            this.newToolStripMenuItem.Name = "newToolStripMenuItem";
```

```csharp
            this.newToolStripMenuItem.ShortcutKeys                                    =
((System.Windows.Forms.Keys)((System.Windows.Forms.Keys.Control              |
System.Windows.Forms.Keys.N)));

            this.newToolStripMenuItem.Size = new System.Drawing.Size(181, 26);

            this.newToolStripMenuItem.Text = "New";

            this.newToolStripMenuItem.Click                        +=                    new
System.EventHandler(this.newToolStripMenuItem_Click);

            //

            // openToolStripMenuItem

            //

            this.openToolStripMenuItem.Name = "openToolStripMenuItem";

            this.openToolStripMenuItem.ShortcutKeys                                   =
((System.Windows.Forms.Keys)((System.Windows.Forms.Keys.Control              |
System.Windows.Forms.Keys.O)));

            this.openToolStripMenuItem.Size = new System.Drawing.Size(181, 26);

            this.openToolStripMenuItem.Text = "Open";

            this.openToolStripMenuItem.Click                        +=                    new
System.EventHandler(this.openToolStripMenuItem_Click);

            //

            // saveToolStripMenuItem

            //

            this.saveToolStripMenuItem.Name = "saveToolStripMenuItem";

            this.saveToolStripMenuItem.ShortcutKeys                                   =
((System.Windows.Forms.Keys)((System.Windows.Forms.Keys.Control              |
System.Windows.Forms.Keys.S)));

            this.saveToolStripMenuItem.Size = new System.Drawing.Size(181, 26);

            this.saveToolStripMenuItem.Text = "Save";

            this.saveToolStripMenuItem.Click                        +=                    new
System.EventHandler(this.saveToolStripMenuItem_Click);

            //

            // saveAsToolStripMenuItem
```

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```
        //
        this.saveAsToolStripMenuItem.Name = "saveAsToolStripMenuItem";

        this.saveAsToolStripMenuItem.Size = new System.Drawing.Size(181, 26);

        this.saveAsToolStripMenuItem.Text = "Save As";

        this.saveAsToolStripMenuItem.Click                    +=                    new
    System.EventHandler(this.saveAsToolStripMenuItem_Click_1);

        //

        // printPreviewToolStripMenuItem

        //

        this.printPreviewToolStripMenuItem.Name = "printPreviewToolStripMenuItem";

        this.printPreviewToolStripMenuItem.Size = new System.Drawing.Size(181, 26);

        this.printPreviewToolStripMenuItem.Text = "Print Preview";

        this.printPreviewToolStripMenuItem.Click              +=                    new
    System.EventHandler(this.printPreviewToolStripMenuItem_Click);

        //

        // toolStripSeparator1

        //

        this.toolStripSeparator1.Name = "toolStripSeparator1";

        this.toolStripSeparator1.Size = new System.Drawing.Size(178, 6);

        //

        // printToolStripMenuItem

        //

        this.printToolStripMenuItem.Name = "printToolStripMenuItem";

        this.printToolStripMenuItem.ShortcutKeys                                      =
    ((System.Windows.Forms.Keys)((System.Windows.Forms.Keys.Control               |
    System.Windows.Forms.Keys.P)));

        this.printToolStripMenuItem.Size = new System.Drawing.Size(181, 26);

        this.printToolStripMenuItem.Text = "Print";

        this.printToolStripMenuItem.Click                     +=                    new
    System.EventHandler(this.printToolStripMenuItem_Click);
```

```
//
// toolStripSeparator3
//
this.toolStripSeparator3.Name = "toolStripSeparator3";
this.toolStripSeparator3.Size = new System.Drawing.Size(178, 6);
//
// exitToolStripMenuItem
//
this.exitToolStripMenuItem.Name = "exitToolStripMenuItem";
this.exitToolStripMenuItem.ShortcutKeys =
((System.Windows.Forms.Keys)((System.Windows.Forms.Keys.Control |
System.Windows.Forms.Keys.X)));
this.exitToolStripMenuItem.Size = new System.Drawing.Size(181, 26);
this.exitToolStripMenuItem.Text = "Exit";
this.exitToolStripMenuItem.Click += new
System.EventHandler(this.exitToolStripMenuItem_Click);
//
// editToolStripMenuItem
//
this.editToolStripMenuItem.DropDownItems.AddRange(new
System.Windows.Forms.ToolStripItem[] {
this.undoToolStripMenuItem,
this.redoToolStripMenuItem,
this.toolStripSeparator2,
this.cutToolStripMenuItem,
this.copyToolStripMenuItem,
this.pasteToolStripMenuItem,
this.deleteToolStripMenuItem,
this.selectAllToolStripMenuItem});
this.editToolStripMenuItem.Name = "editToolStripMenuItem";
```

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```
        this.editToolStripMenuItem.Size = new System.Drawing.Size(49, 24);

        this.editToolStripMenuItem.Text = "&Edit";

        //

        // undoToolStripMenuItem

        //

        this.undoToolStripMenuItem.Name = "undoToolStripMenuItem";

        this.undoToolStripMenuItem.ShortcutKeys                                =
((System.Windows.Forms.Keys)((System.Windows.Forms.Keys.Control              |
System.Windows.Forms.Keys.Z)));

        this.undoToolStripMenuItem.Size = new System.Drawing.Size(206, 26);

        this.undoToolStripMenuItem.Text = "Undo";

        this.undoToolStripMenuItem.Click                        +=                new
System.EventHandler(this.undoToolStripMenuItem_Click);

        //

        // redoToolStripMenuItem

        //

        this.redoToolStripMenuItem.Name = "redoToolStripMenuItem";

        this.redoToolStripMenuItem.ShortcutKeys                                =
((System.Windows.Forms.Keys)((System.Windows.Forms.Keys.Control              |
System.Windows.Forms.Keys.Y)));

        this.redoToolStripMenuItem.Size = new System.Drawing.Size(206, 26);

        this.redoToolStripMenuItem.Text = "Redo";

        this.redoToolStripMenuItem.Click                      +=                  new
System.EventHandler(this.redoToolStripMenuItem_Click);

        //

        // toolStripSeparator2

        //

        this.toolStripSeparator2.Name = "toolStripSeparator2";

        this.toolStripSeparator2.Size = new System.Drawing.Size(203, 6);

        //
```

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```
// cutToolStripMenuItem
//
this.cutToolStripMenuItem.Name = "cutToolStripMenuItem";
this.cutToolStripMenuItem.ShortcutKeys                                     =
((System.Windows.Forms.Keys)((System.Windows.Forms.Keys.Control            |
System.Windows.Forms.Keys.X)));
this.cutToolStripMenuItem.Size = new System.Drawing.Size(206, 26);
this.cutToolStripMenuItem.Text = "Cut";
this.cutToolStripMenuItem.Click                    +=                  new
System.EventHandler(this.cutToolStripMenuItem_Click);
//
// copyToolStripMenuItem
//
this.copyToolStripMenuItem.ImageAlign                                       =
System.Drawing.ContentAlignment.MiddleLeft;
this.copyToolStripMenuItem.Name = "copyToolStripMenuItem";
this.copyToolStripMenuItem.ShortcutKeys                                     =
((System.Windows.Forms.Keys)((System.Windows.Forms.Keys.Control            |
System.Windows.Forms.Keys.C)));
this.copyToolStripMenuItem.Size = new System.Drawing.Size(206, 26);
this.copyToolStripMenuItem.Text = "Copy";
this.copyToolStripMenuItem.Click                    +=                  new
System.EventHandler(this.copyToolStripMenuItem_Click);
//
// pasteToolStripMenuItem
//
this.pasteToolStripMenuItem.Name = "pasteToolStripMenuItem";
this.pasteToolStripMenuItem.ShortcutKeys                                    =
((System.Windows.Forms.Keys)((System.Windows.Forms.Keys.Control            |
System.Windows.Forms.Keys.V)));
this.pasteToolStripMenuItem.Size = new System.Drawing.Size(206, 26);
```

```csharp
this.pasteToolStripMenuItem.Text = "Paste";

this.pasteToolStripMenuItem.Click                        +=                    new
System.EventHandler(this.pasteToolStripMenuItem_Click);

//

// deleteToolStripMenuItem

//

this.deleteToolStripMenuItem.Name = "deleteToolStripMenuItem";

this.deleteToolStripMenuItem.Size = new System.Drawing.Size(206, 26);

this.deleteToolStripMenuItem.Text = "Delete";

this.deleteToolStripMenuItem.Click                       +=                    new
System.EventHandler(this.deleteToolStripMenuItem_Click);

//

// selectAllToolStripMenuItem

//

this.selectAllToolStripMenuItem.Name = "selectAllToolStripMenuItem";

this.selectAllToolStripMenuItem.ShortcutKeys                                  =
((System.Windows.Forms.Keys)((System.Windows.Forms.Keys.Control          |
System.Windows.Forms.Keys.A)));

this.selectAllToolStripMenuItem.Size = new System.Drawing.Size(206, 26);

this.selectAllToolStripMenuItem.Text = "Select All";

this.selectAllToolStripMenuItem.Click                      +=                   new
System.EventHandler(this.selectAllToolStripMenuItem_Click);

//

// formatToolStripMenuItem

//

this.formatToolStripMenuItem.DropDownItems.AddRange(new
System.Windows.Forms.ToolStripItem[] {

this.wordWrapToolStripMenuItem,

this.fontToolStripMenuItem,

this.highlightTextToolStripMenuItem});
```

```csharp
this.formatToolStripMenuItem.Name = "formatToolStripMenuItem";

this.formatToolStripMenuItem.Size = new System.Drawing.Size(70, 24);

this.formatToolStripMenuItem.Text = "&Format";

//

// wordWrapToolStripMenuItem

//

this.wordWrapToolStripMenuItem.Checked = true;

this.wordWrapToolStripMenuItem.CheckState                                         =
System.Windows.Forms.CheckState.Checked;

this.wordWrapToolStripMenuItem.Name = "wordWrapToolStripMenuItem";

this.wordWrapToolStripMenuItem.Size = new System.Drawing.Size(185, 26);

this.wordWrapToolStripMenuItem.Text = "Word Wrap";

this.wordWrapToolStripMenuItem.Click                        +=                new
System.EventHandler(this.wordWrapToolStripMenuItem_Click);

//

// fontToolStripMenuItem

//

this.fontToolStripMenuItem.Name = "fontToolStripMenuItem";

this.fontToolStripMenuItem.Size = new System.Drawing.Size(185, 26);

this.fontToolStripMenuItem.Text = "Font";

this.fontToolStripMenuItem.Click                           +=                new
System.EventHandler(this.fontToolStripMenuItem_Click);

//

// highlightTextToolStripMenuItem

//

this.highlightTextToolStripMenuItem.Name = "highlightTextToolStripMenuItem";

this.highlightTextToolStripMenuItem.Size = new System.Drawing.Size(185, 26);

this.highlightTextToolStripMenuItem.Text = "Highlight Text";

this.highlightTextToolStripMenuItem.Click                      +=               new
System.EventHandler(this.highlightTextToolStripMenuItem_Click);
```

```csharp
//
// helpToolStripMenuItem
//
this.helpToolStripMenuItem.DropDownItems.AddRange(new
System.Windows.Forms.ToolStripItem[] {
this.aboutToolStripMenuItem});
this.helpToolStripMenuItem.Name = "helpToolStripMenuItem";
this.helpToolStripMenuItem.Size = new System.Drawing.Size(55, 24);
this.helpToolStripMenuItem.Text = "&Help";
//
// aboutToolStripMenuItem
//
this.aboutToolStripMenuItem.Name = "aboutToolStripMenuItem";
this.aboutToolStripMenuItem.Size = new System.Drawing.Size(133, 26);
this.aboutToolStripMenuItem.Text = "About";
this.aboutToolStripMenuItem.Click                    +=                    new
System.EventHandler(this.aboutToolStripMenuItem_Click);
//
// richTextBox1
//
this.richTextBox1.Anchor                                                     =
((System.Windows.Forms.AnchorStyles)(((((System.Windows.Forms.AnchorStyles.Top    |
System.Windows.Forms.AnchorStyles.Bottom)
| System.Windows.Forms.AnchorStyles.Left)
| System.Windows.Forms.AnchorStyles.Right)));
this.richTextBox1.Location = new System.Drawing.Point(0, 31);
this.richTextBox1.Name = "richTextBox1";
this.richTextBox1.Size = new System.Drawing.Size(800, 417);
this.richTextBox1.TabIndex = 3;
this.richTextBox1.Text = "";
```

```
//
// openFileDialog1
//
this.openFileDialog1.FileName = "openFileDialog1";
//
// printPreviewDialog1
//
this.printPreviewDialog1.AutoScrollMargin = new System.Drawing.Size(0, 0);
this.printPreviewDialog1.AutoScrollMinSize = new System.Drawing.Size(0, 0);
this.printPreviewDialog1.ClientSize = new System.Drawing.Size(400, 300);
this.printPreviewDialog1.Enabled = true;
this.printPreviewDialog1.Icon                                                        =
((System.Drawing.Icon)(resources.GetObject("printPreviewDialog1.Icon")));
this.printPreviewDialog1.Name = "printPreviewDialog1";
this.printPreviewDialog1.Visible = false;
//
// printDialog1
//
this.printDialog1.UseEXDialog = true;
//
// paintEditorToolStripMenuItem
//
this.paintEditorToolStripMenuItem.Name = "paintEditorToolStripMenuItem";
this.paintEditorToolStripMenuItem.Size = new System.Drawing.Size(32, 19);
this.paintEditorToolStripMenuItem.Text = "PaintEditor";
this.paintEditorToolStripMenuItem.Click                    +=                    new
System.EventHandler(this.paintEditorToolStripMenuItem_Click);
//
// paintEditorToolStripMenuItem1
```

```csharp
//
this.paintEditorToolStripMenuItem1.Name = "paintEditorToolStripMenuItem1";
this.paintEditorToolStripMenuItem1.Size = new System.Drawing.Size(95, 24);
this.paintEditorToolStripMenuItem1.Text = "PaintEditor";
//
// Form1
//
this.AutoScaleDimensions = new System.Drawing.SizeF(8F, 16F);
this.AutoScaleMode = System.Windows.Forms.AutoScaleMode.Font;
this.ClientSize = new System.Drawing.Size(800, 450);
this.Controls.Add(this.richTextBox1);
this.Controls.Add(this.menuStrip2);
this.Name = "Form1";
this.Text = "Notepad";
this.WindowState = System.Windows.Forms.FormWindowState.Maximized;
this.menuStrip2.ResumeLayout(false);
this.menuStrip2.PerformLayout();
this.ResumeLayout(false);
this.PerformLayout();

}

#endregion
private System.Windows.Forms.MenuStrip menuStrip2;
private System.Windows.Forms.ToolStripMenuItem fileToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem newToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem openToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem saveToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem printPreviewToolStripMenuItem;
```

```
private System.Windows.Forms.ToolStripMenuItem printToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem exitToolStripMenuItem;
private System.Windows.Forms.ToolStripSeparator toolStripSeparator1;
private System.Windows.Forms.ToolStripSeparator toolStripSeparator3;
private System.Windows.Forms.ToolStripMenuItem editToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem undoToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem redoToolStripMenuItem;
private System.Windows.Forms.ToolStripSeparator toolStripSeparator2;
private System.Windows.Forms.ToolStripMenuItem cutToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem copyToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem pasteToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem deleteToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem selectAllToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem formatToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem wordWrapToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem fontToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem highlightTextToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem helpToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem aboutToolStripMenuItem;
private System.Windows.Forms.RichTextBox richTextBox1;
private System.Windows.Forms.OpenFileDialog openFileDialog1;
private System.Windows.Forms.ToolStripMenuItem saveAsToolStripMenuItem;
private System.Windows.Forms.PrintPreviewDialog printPreviewDialog1;
private System.Drawing.Printing.PrintDocument printDocument1;
private System.Windows.Forms.PrintDialog printDialog1;
private System.Windows.Forms.FontDialog fontDialog1;
private System.Windows.Forms.ToolStripMenuItem paintEditorToolStripMenuItem1;
private System.Windows.Forms.ToolStripMenuItem paintEditorToolStripMenuItem;
}
```

```
        }
```

Form1.Designer.cs:

```
namespace notepad
{
  public partial class Form1
  {
    /// <summary>
    /// Required designer variable.
    /// </summary>
    private System.ComponentModel.IContainer components = null;

    /// <summary>
    /// Clean up any resources being used.
    /// </summary>
    /// <param name="disposing">true if managed resources should be disposed; otherwise, false.</param>
    protected override void Dispose(bool disposing)
    {
      if (disposing && (components != null))
      {
        components.Dispose();
      }
```

```csharp
            base.Dispose(disposing);

        }


        #region Windows Form Designer generated code


        /// <summary>

        /// Required method for Designer support - do not modify

        /// the contents of this method with the code editor.

        /// </summary>

        private void InitializeComponent()

        {

            System.ComponentModel.ComponentResourceManager    resources    =    new
System.ComponentModel.ComponentResourceManager(typeof(Form1));

            this.menuStrip2 = new System.Windows.Forms.MenuStrip();

            this.fileToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();

            this.newToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();

            this.openToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();

            this.saveToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();

            this.saveAsToolStripMenuItem                     =                     new
System.Windows.Forms.ToolStripMenuItem();

            this.printPreviewToolStripMenuItem               =                     new
System.Windows.Forms.ToolStripMenuItem();

            this.toolStripSeparator1 = new System.Windows.Forms.ToolStripSeparator();

            this.printToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();

            this.toolStripSeparator3 = new System.Windows.Forms.ToolStripSeparator();

            this.exitToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();

            this.editToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();

            this.undoToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();

            this.redoToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();

            this.toolStripSeparator2 = new System.Windows.Forms.ToolStripSeparator();
```

55

```csharp
this.cutToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();

this.copyToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();

this.pasteToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();

this.deleteToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();

this.selectAllToolStripMenuItem                    =                    new
System.Windows.Forms.ToolStripMenuItem();

this.formatToolStripMenuItem                    =                    new
System.Windows.Forms.ToolStripMenuItem();

this.wordWrapToolStripMenuItem                    =                    new
System.Windows.Forms.ToolStripMenuItem();

this.fontToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();

this.highlightTextToolStripMenuItem                    =                    new
System.Windows.Forms.ToolStripMenuItem();

this.helpToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();

this.aboutToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();

this.richTextBox1 = new System.Windows.Forms.RichTextBox();

this.openFileDialog1 = new System.Windows.Forms.OpenFileDialog();

this.printPreviewDialog1 = new System.Windows.Forms.PrintPreviewDialog();

this.printDocument1 = new System.Drawing.Printing.PrintDocument();

this.printDialog1 = new System.Windows.Forms.PrintDialog();

this.fontDialog1 = new System.Windows.Forms.FontDialog();

this.paintEditorToolStripMenuItem                    =                    new
System.Windows.Forms.ToolStripMenuItem();

this.paintEditorToolStripMenuItem1                    =                    new
System.Windows.Forms.ToolStripMenuItem();

this.menuStrip2.SuspendLayout();

this.SuspendLayout();

//

// menuStrip2

//
```

```csharp
this.menuStrip2.ImageScalingSize = new System.Drawing.Size(20, 20);

this.menuStrip2.Items.AddRange(new System.Windows.Forms.ToolStripItem[] {

this.fileToolStripMenuItem,

this.editToolStripMenuItem,

this.formatToolStripMenuItem,

this.helpToolStripMenuItem,

this.paintEditorToolStripMenuItem1});

this.menuStrip2.Location = new System.Drawing.Point(0, 0);

this.menuStrip2.Name = "menuStrip2";

this.menuStrip2.Size = new System.Drawing.Size(800, 28);

this.menuStrip2.TabIndex = 2;

this.menuStrip2.Text = "menuStrip2";

//

// fileToolStripMenuItem

//

this.fileToolStripMenuItem.DropDownItems.AddRange(new
System.Windows.Forms.ToolStripItem[] {

this.newToolStripMenuItem,

this.openToolStripMenuItem,

this.saveToolStripMenuItem,

this.saveAsToolStripMenuItem,

this.printPreviewToolStripMenuItem,

this.toolStripSeparator1,

this.printToolStripMenuItem,

this.toolStripSeparator3,

this.exitToolStripMenuItem});

this.fileToolStripMenuItem.Name = "fileToolStripMenuItem";

this.fileToolStripMenuItem.Size = new System.Drawing.Size(46, 24);

this.fileToolStripMenuItem.Text = "&File";
```

```csharp
            //
            // newToolStripMenuItem
            //
            this.newToolStripMenuItem.Name = "newToolStripMenuItem";
            this.newToolStripMenuItem.ShortcutKeys                        =
((System.Windows.Forms.Keys)((System.Windows.Forms.Keys.Control              |
System.Windows.Forms.Keys.N)));
            this.newToolStripMenuItem.Size = new System.Drawing.Size(181, 26);
            this.newToolStripMenuItem.Text = "New";
            this.newToolStripMenuItem.Click                    +=                    new
System.EventHandler(this.newToolStripMenuItem_Click);
            //
            // openToolStripMenuItem
            //
            this.openToolStripMenuItem.Name = "openToolStripMenuItem";
            this.openToolStripMenuItem.ShortcutKeys                       =
((System.Windows.Forms.Keys)((System.Windows.Forms.Keys.Control              |
System.Windows.Forms.Keys.O)));
            this.openToolStripMenuItem.Size = new System.Drawing.Size(181, 26);
            this.openToolStripMenuItem.Text = "Open";
            this.openToolStripMenuItem.Click                   +=                    new
System.EventHandler(this.openToolStripMenuItem_Click);
            //
            // saveToolStripMenuItem
            //
            this.saveToolStripMenuItem.Name = "saveToolStripMenuItem";
            this.saveToolStripMenuItem.ShortcutKeys                       =
((System.Windows.Forms.Keys)((System.Windows.Forms.Keys.Control              |
System.Windows.Forms.Keys.S)));
            this.saveToolStripMenuItem.Size = new System.Drawing.Size(181, 26);
            this.saveToolStripMenuItem.Text = "Save";
```

```csharp
            this.saveToolStripMenuItem.Click                              += new
System.EventHandler(this.saveToolStripMenuItem_Click);
            //
            // saveAsToolStripMenuItem
            //
            this.saveAsToolStripMenuItem.Name = "saveAsToolStripMenuItem";
            this.saveAsToolStripMenuItem.Size = new System.Drawing.Size(181, 26);
            this.saveAsToolStripMenuItem.Text = "Save As";
            this.saveAsToolStripMenuItem.Click                           += new
System.EventHandler(this.saveAsToolStripMenuItem_Click_1);
            //
            // printPreviewToolStripMenuItem
            //
            this.printPreviewToolStripMenuItem.Name = "printPreviewToolStripMenuItem";
            this.printPreviewToolStripMenuItem.Size = new System.Drawing.Size(181, 26);
            this.printPreviewToolStripMenuItem.Text = "Print Preview";
            this.printPreviewToolStripMenuItem.Click                     += new
System.EventHandler(this.printPreviewToolStripMenuItem_Click);
            //
            // toolStripSeparator1
            //
            this.toolStripSeparator1.Name = "toolStripSeparator1";
            this.toolStripSeparator1.Size = new System.Drawing.Size(178, 6);
            //
            // printToolStripMenuItem
            //
            this.printToolStripMenuItem.Name = "printToolStripMenuItem";
            this.printToolStripMenuItem.ShortcutKeys                      =
((System.Windows.Forms.Keys)((System.Windows.Forms.Keys.Control          |
System.Windows.Forms.Keys.P)));
```

```csharp
this.printToolStripMenuItem.Size = new System.Drawing.Size(181, 26);

this.printToolStripMenuItem.Text = "Print";

this.printToolStripMenuItem.Click                          +=                          new
System.EventHandler(this.printToolStripMenuItem_Click);
//
// toolStripSeparator3
//
this.toolStripSeparator3.Name = "toolStripSeparator3";

this.toolStripSeparator3.Size = new System.Drawing.Size(178, 6);
//
// exitToolStripMenuItem
//
this.exitToolStripMenuItem.Name = "exitToolStripMenuItem";

this.exitToolStripMenuItem.ShortcutKeys                                             =
((System.Windows.Forms.Keys)((System.Windows.Forms.Keys.Control              |
System.Windows.Forms.Keys.X)));

this.exitToolStripMenuItem.Size = new System.Drawing.Size(181, 26);

this.exitToolStripMenuItem.Text = "Exit";

this.exitToolStripMenuItem.Click                          +=                          new
System.EventHandler(this.exitToolStripMenuItem_Click);
//
// editToolStripMenuItem
//
this.editToolStripMenuItem.DropDownItems.AddRange(new
System.Windows.Forms.ToolStripItem[] {

this.undoToolStripMenuItem,

this.redoToolStripMenuItem,

this.toolStripSeparator2,

this.cutToolStripMenuItem,

this.copyToolStripMenuItem,
```

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```csharp
            this.pasteToolStripMenuItem,

            this.deleteToolStripMenuItem,

            this.selectAllToolStripMenuItem});

            this.editToolStripMenuItem.Name = "editToolStripMenuItem";

            this.editToolStripMenuItem.Size = new System.Drawing.Size(49, 24);

            this.editToolStripMenuItem.Text = "&Edit";

            //

            // undoToolStripMenuItem

            //

            this.undoToolStripMenuItem.Name = "undoToolStripMenuItem";

            this.undoToolStripMenuItem.ShortcutKeys                                    =
((System.Windows.Forms.Keys)((System.Windows.Forms.Keys.Control                       |
System.Windows.Forms.Keys.Z)));

            this.undoToolStripMenuItem.Size = new System.Drawing.Size(206, 26);

            this.undoToolStripMenuItem.Text = "Undo";

            this.undoToolStripMenuItem.Click                        +=                new
System.EventHandler(this.undoToolStripMenuItem_Click);

            //

            // redoToolStripMenuItem

            //

            this.redoToolStripMenuItem.Name = "redoToolStripMenuItem";

            this.redoToolStripMenuItem.ShortcutKeys                                     =
((System.Windows.Forms.Keys)((System.Windows.Forms.Keys.Control                       |
System.Windows.Forms.Keys.Y)));

            this.redoToolStripMenuItem.Size = new System.Drawing.Size(206, 26);

            this.redoToolStripMenuItem.Text = "Redo";

            this.redoToolStripMenuItem.Click                        +=                new
System.EventHandler(this.redoToolStripMenuItem_Click);

            //

            // toolStripSeparator2
```

```
//

this.toolStripSeparator2.Name = "toolStripSeparator2";

this.toolStripSeparator2.Size = new System.Drawing.Size(203, 6);

//

// cutToolStripMenuItem

//

this.cutToolStripMenuItem.Name = "cutToolStripMenuItem";

this.cutToolStripMenuItem.ShortcutKeys                                    =
((System.Windows.Forms.Keys)((System.Windows.Forms.Keys.Control            |
System.Windows.Forms.Keys.X)));

this.cutToolStripMenuItem.Size = new System.Drawing.Size(206, 26);

this.cutToolStripMenuItem.Text = "Cut";

this.cutToolStripMenuItem.Click                      +=                      new
System.EventHandler(this.cutToolStripMenuItem_Click);

//

// copyToolStripMenuItem

//

this.copyToolStripMenuItem.ImageAlign                                        =
System.Drawing.ContentAlignment.MiddleLeft;

this.copyToolStripMenuItem.Name = "copyToolStripMenuItem";

this.copyToolStripMenuItem.ShortcutKeys                                     =
((System.Windows.Forms.Keys)((System.Windows.Forms.Keys.Control            |
System.Windows.Forms.Keys.C)));

this.copyToolStripMenuItem.Size = new System.Drawing.Size(206, 26);

this.copyToolStripMenuItem.Text = "Copy";

this.copyToolStripMenuItem.Click                     +=                      new
System.EventHandler(this.copyToolStripMenuItem_Click);

//

// pasteToolStripMenuItem

//

this.pasteToolStripMenuItem.Name = "pasteToolStripMenuItem";
```

```csharp
            this.pasteToolStripMenuItem.ShortcutKeys                                        =
((System.Windows.Forms.Keys)((System.Windows.Forms.Keys.Control                            |
System.Windows.Forms.Keys.V)));

            this.pasteToolStripMenuItem.Size = new System.Drawing.Size(206, 26);

            this.pasteToolStripMenuItem.Text = "Paste";

            this.pasteToolStripMenuItem.Click                        +=                new
System.EventHandler(this.pasteToolStripMenuItem_Click);

            //

            // deleteToolStripMenuItem

            //

            this.deleteToolStripMenuItem.Name = "deleteToolStripMenuItem";

            this.deleteToolStripMenuItem.Size = new System.Drawing.Size(206, 26);

            this.deleteToolStripMenuItem.Text = "Delete";

            this.deleteToolStripMenuItem.Click                        +=                new
System.EventHandler(this.deleteToolStripMenuItem_Click);

            //

            // selectAllToolStripMenuItem

            //

            this.selectAllToolStripMenuItem.Name = "selectAllToolStripMenuItem";

            this.selectAllToolStripMenuItem.ShortcutKeys                                   =
((System.Windows.Forms.Keys)((System.Windows.Forms.Keys.Control                            |
System.Windows.Forms.Keys.A)));

            this.selectAllToolStripMenuItem.Size = new System.Drawing.Size(206, 26);

            this.selectAllToolStripMenuItem.Text = "Select All";

            this.selectAllToolStripMenuItem.Click                     +=                new
System.EventHandler(this.selectAllToolStripMenuItem_Click);

            //

            // formatToolStripMenuItem

            //

            this.formatToolStripMenuItem.DropDownItems.AddRange(new
System.Windows.Forms.ToolStripItem[] {
```

```
            this.wordWrapToolStripMenuItem,

            this.fontToolStripMenuItem,

            this.highlightTextToolStripMenuItem});

        this.formatToolStripMenuItem.Name = "formatToolStripMenuItem";

        this.formatToolStripMenuItem.Size = new System.Drawing.Size(70, 24);

        this.formatToolStripMenuItem.Text = "&Format";

        //

        // wordWrapToolStripMenuItem

        //

        this.wordWrapToolStripMenuItem.Checked = true;

        this.wordWrapToolStripMenuItem.CheckState                                    =
System.Windows.Forms.CheckState.Checked;

        this.wordWrapToolStripMenuItem.Name = "wordWrapToolStripMenuItem";

        this.wordWrapToolStripMenuItem.Size = new System.Drawing.Size(185, 26);

        this.wordWrapToolStripMenuItem.Text = "Word Wrap";

        this.wordWrapToolStripMenuItem.Click                       +=                 new
System.EventHandler(this.wordWrapToolStripMenuItem_Click);

        //

        // fontToolStripMenuItem

        //

        this.fontToolStripMenuItem.Name = "fontToolStripMenuItem";

        this.fontToolStripMenuItem.Size = new System.Drawing.Size(185, 26);

        this.fontToolStripMenuItem.Text = "Font";

        this.fontToolStripMenuItem.Click                          +=                 new
System.EventHandler(this.fontToolStripMenuItem_Click);

        //

        // highlightTextToolStripMenuItem

        //

        this.highlightTextToolStripMenuItem.Name = "highlightTextToolStripMenuItem";

        this.highlightTextToolStripMenuItem.Size = new System.Drawing.Size(185, 26);
```

```csharp
            this.highlightTextToolStripMenuItem.Text = "Highlight Text";

            this.highlightTextToolStripMenuItem.Click                    +=                    new
System.EventHandler(this.highlightTextToolStripMenuItem_Click);

            //

            // helpToolStripMenuItem

            //

            this.helpToolStripMenuItem.DropDownItems.AddRange(new
System.Windows.Forms.ToolStripItem[] {

            this.aboutToolStripMenuItem});

            this.helpToolStripMenuItem.Name = "helpToolStripMenuItem";

            this.helpToolStripMenuItem.Size = new System.Drawing.Size(55, 24);

            this.helpToolStripMenuItem.Text = "&Help";

            //

            // aboutToolStripMenuItem

            //

            this.aboutToolStripMenuItem.Name = "aboutToolStripMenuItem";

            this.aboutToolStripMenuItem.Size = new System.Drawing.Size(133, 26);

            this.aboutToolStripMenuItem.Text = "About";

            this.aboutToolStripMenuItem.Click                    +=                    new
System.EventHandler(this.aboutToolStripMenuItem_Click);

            //

            // richTextBox1

            //

            this.richTextBox1.Anchor                                                         =
((System.Windows.Forms.AnchorStyles)(((((System.Windows.Forms.AnchorStyles.Top    |
System.Windows.Forms.AnchorStyles.Bottom)

            | System.Windows.Forms.AnchorStyles.Left)

            | System.Windows.Forms.AnchorStyles.Right)));

            this.richTextBox1.Location = new System.Drawing.Point(0, 31);

            this.richTextBox1.Name = "richTextBox1";
```

```csharp
this.richTextBox1.Size = new System.Drawing.Size(800, 417);

this.richTextBox1.TabIndex = 3;

this.richTextBox1.Text = "";

//

// openFileDialog1

//

this.openFileDialog1.FileName = "openFileDialog1";

//

// printPreviewDialog1

//

this.printPreviewDialog1.AutoScrollMargin = new System.Drawing.Size(0, 0);

this.printPreviewDialog1.AutoScrollMinSize = new System.Drawing.Size(0, 0);

this.printPreviewDialog1.ClientSize = new System.Drawing.Size(400, 300);

this.printPreviewDialog1.Enabled = true;

this.printPreviewDialog1.Icon                                          =
((System.Drawing.Icon)(resources.GetObject("printPreviewDialog1.Icon")));

this.printPreviewDialog1.Name = "printPreviewDialog1";

this.printPreviewDialog1.Visible = false;

//

// printDialog1

//

this.printDialog1.UseEXDialog = true;

//

// paintEditorToolStripMenuItem

//

this.paintEditorToolStripMenuItem.Name = "paintEditorToolStripMenuItem";

this.paintEditorToolStripMenuItem.Size = new System.Drawing.Size(32, 19);

this.paintEditorToolStripMenuItem.Text = "PaintEditor";
```

```csharp
            this.paintEditorToolStripMenuItem.Click                    +=                new
System.EventHandler(this.paintEditorToolStripMenuItem_Click);
            //
            // paintEditorToolStripMenuItem1
            //
            this.paintEditorToolStripMenuItem1.Name = "paintEditorToolStripMenuItem1";
            this.paintEditorToolStripMenuItem1.Size = new System.Drawing.Size(95, 24);
            this.paintEditorToolStripMenuItem1.Text = "PaintEditor";
            //
            // Form1
            //
            this.AutoScaleDimensions = new System.Drawing.SizeF(8F, 16F);
            this.AutoScaleMode = System.Windows.Forms.AutoScaleMode.Font;
            this.ClientSize = new System.Drawing.Size(800, 450);
            this.Controls.Add(this.richTextBox1);
            this.Controls.Add(this.menuStrip2);
            this.Name = "Form1";
            this.Text = "Notepad";
            this.WindowState = System.Windows.Forms.FormWindowState.Maximized;
            this.menuStrip2.ResumeLayout(false);
            this.menuStrip2.PerformLayout();
            this.ResumeLayout(false);
            this.PerformLayout();

        }

        #endregion
        private System.Windows.Forms.MenuStrip menuStrip2;
        private System.Windows.Forms.ToolStripMenuItem fileToolStripMenuItem;
```

```csharp
private System.Windows.Forms.ToolStripMenuItem newToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem openToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem saveToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem printPreviewToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem printToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem exitToolStripMenuItem;
private System.Windows.Forms.ToolStripSeparator toolStripSeparator1;
private System.Windows.Forms.ToolStripSeparator toolStripSeparator3;
private System.Windows.Forms.ToolStripMenuItem editToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem undoToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem redoToolStripMenuItem;
private System.Windows.Forms.ToolStripSeparator toolStripSeparator2;
private System.Windows.Forms.ToolStripMenuItem cutToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem copyToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem pasteToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem deleteToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem selectAllToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem formatToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem wordWrapToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem fontToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem highlightTextToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem helpToolStripMenuItem;
private System.Windows.Forms.ToolStripMenuItem aboutToolStripMenuItem;
private System.Windows.Forms.RichTextBox richTextBox1;
private System.Windows.Forms.OpenFileDialog openFileDialog1;
private System.Windows.Forms.ToolStripMenuItem saveAsToolStripMenuItem;
private System.Windows.Forms.PrintPreviewDialog printPreviewDialog1;
private System.Drawing.Printing.PrintDocument printDocument1;
private System.Windows.Forms.PrintDialog printDialog1;
```
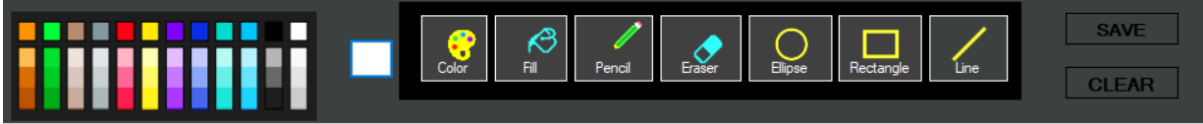
```
        private System.Windows.Forms.FontDialog fontDialog1;

        private System.Windows.Forms.ToolStripMenuItem paintEditorToolStripMenuItem1;

        private System.Windows.Forms.ToolStripMenuItem paintEditorToolStripMenuItem;
    }
}
```
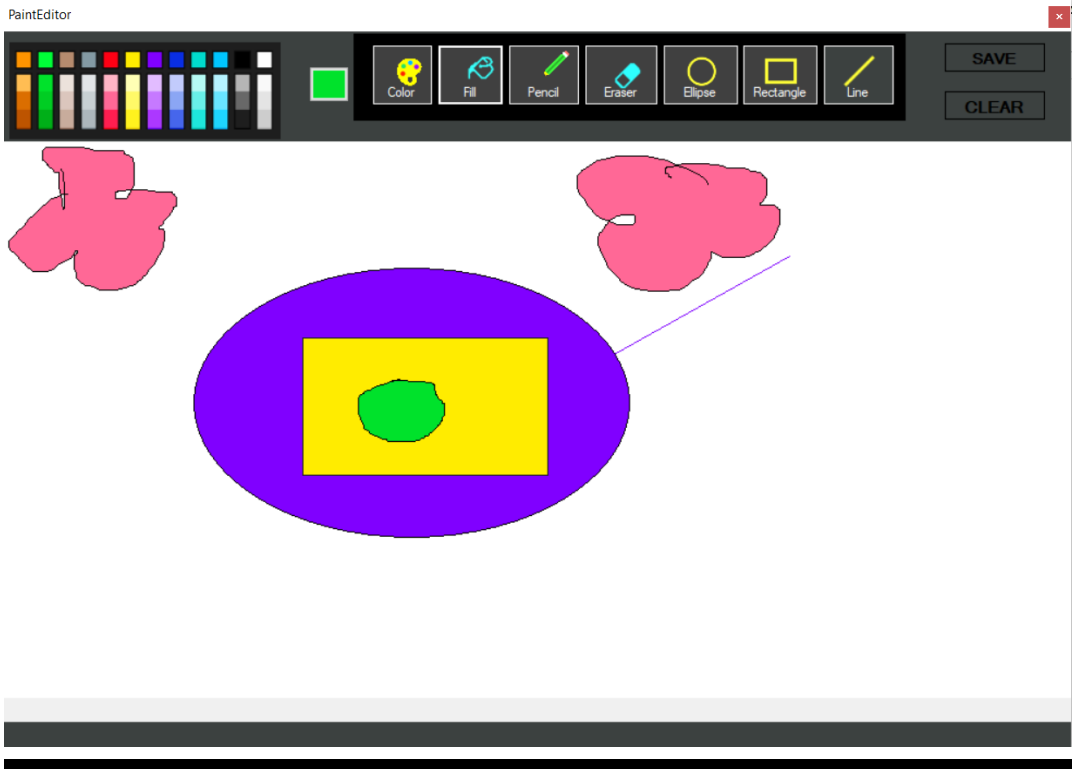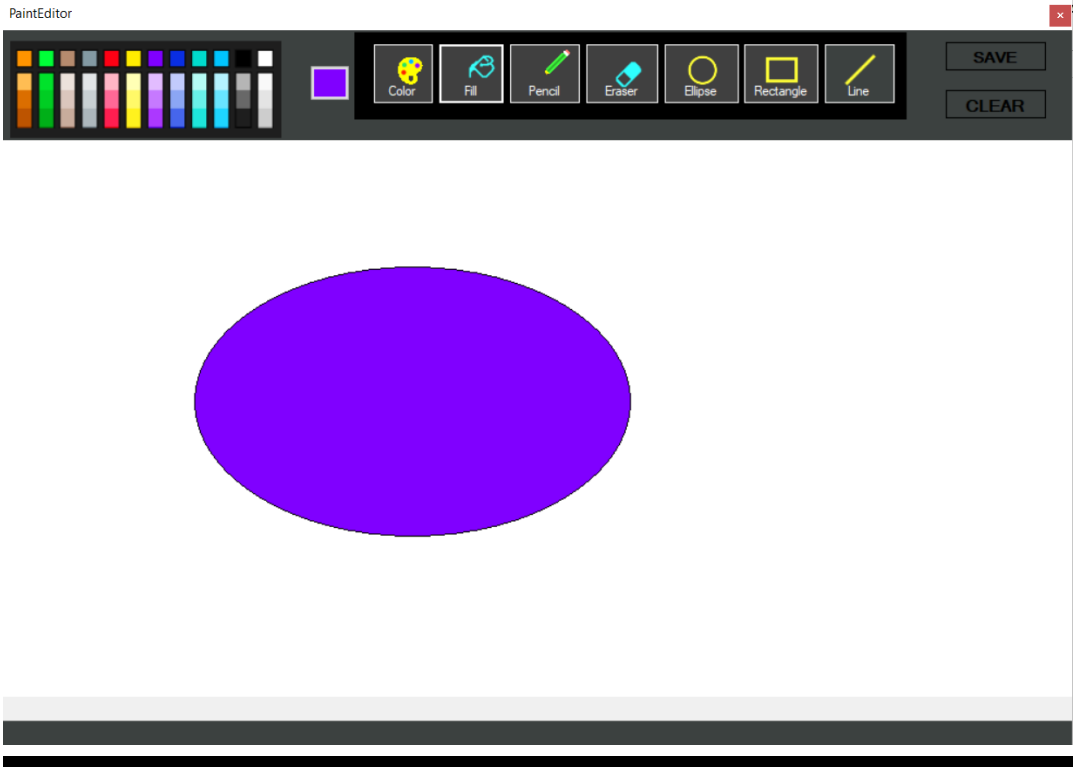
Program.cs:

```csharp
using System;

using System.Collections.Generic;

using System.Linq;

using System.Threading.Tasks;

using System.Windows.Forms;


namespace notepad

{

    static class Program

    {

        /// <summary>

        /// The main entry point for the application.

        /// </summary>

        [STAT hread]

        static void Main()

        {

            Application.EnableVisualStyles();

            Application.SetCompatibleTextRenderingDefault(false);

            Application.Run(new Form1());

        }

    }
```
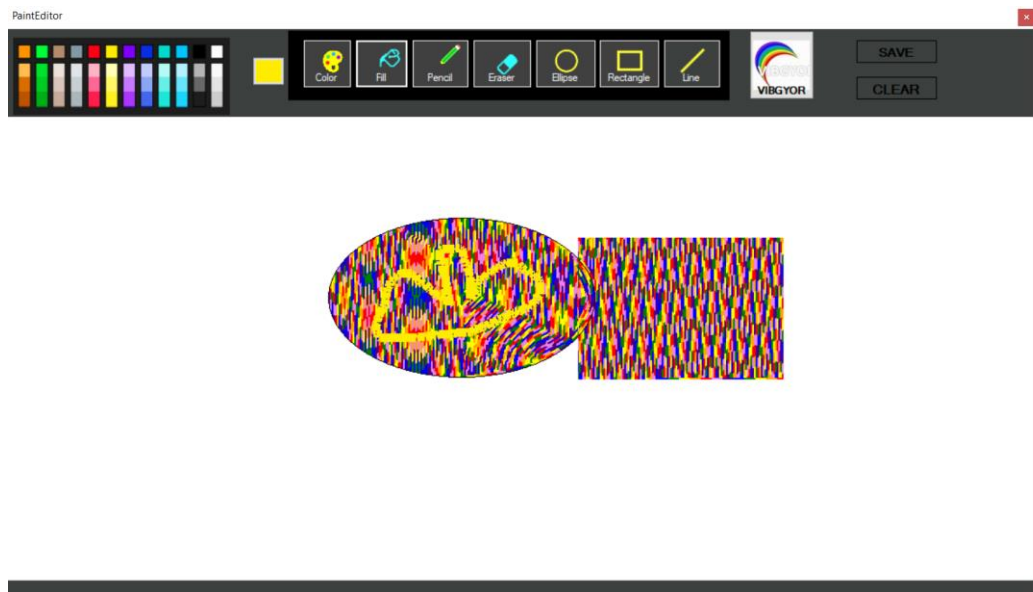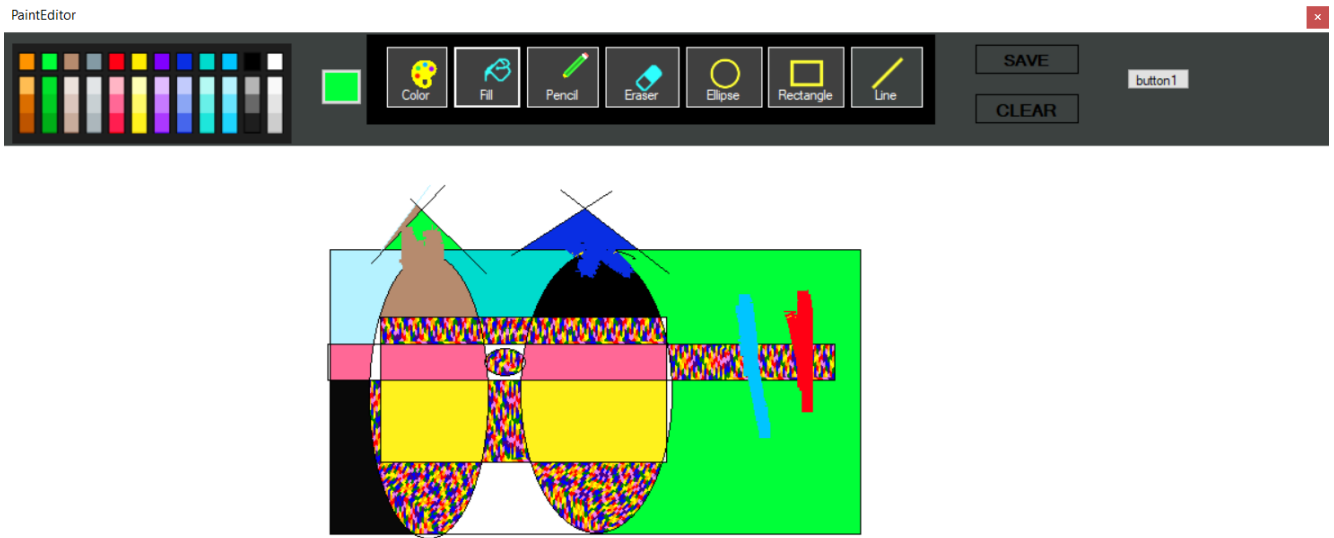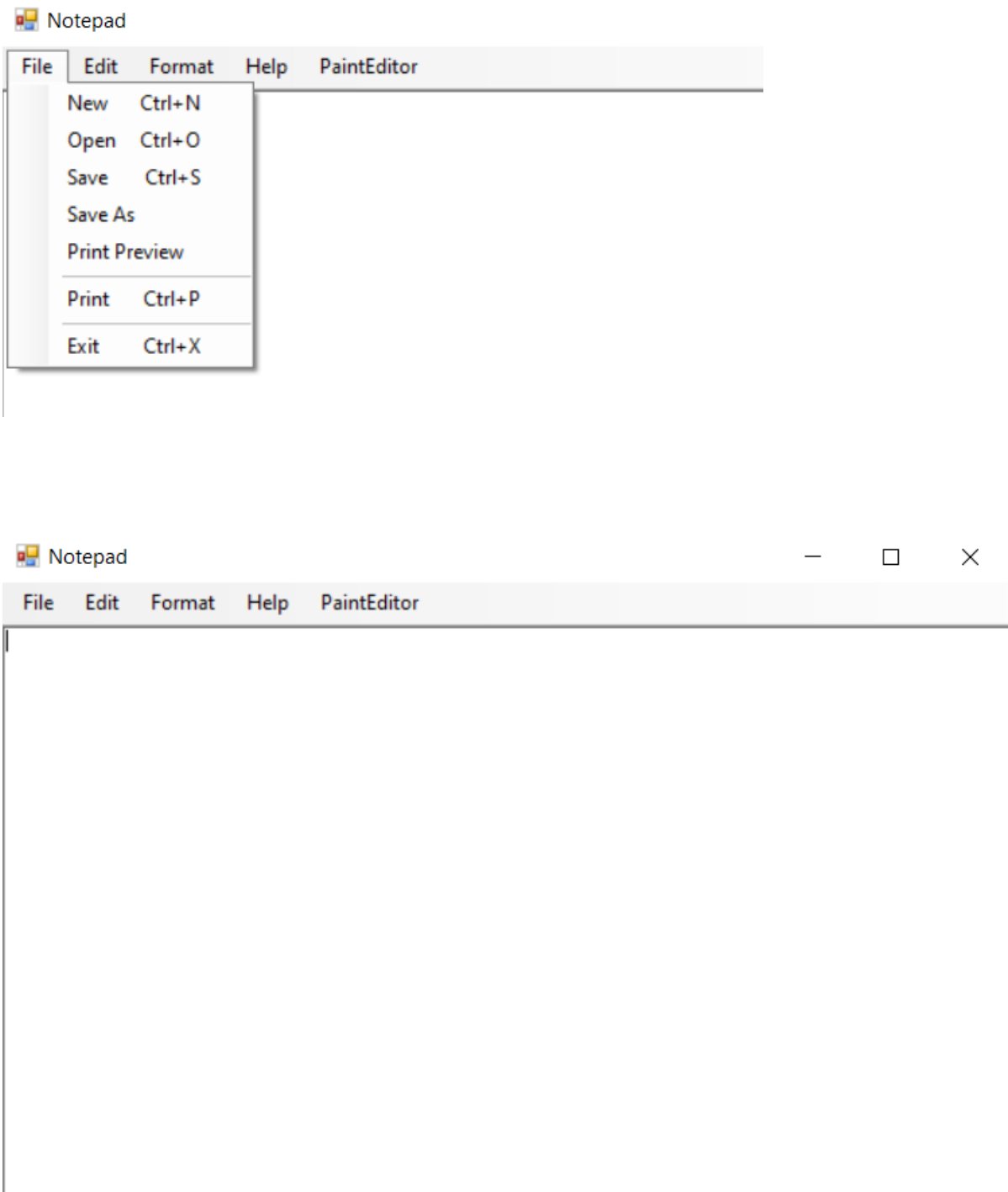
OUTPUT SCREEN

BLANK CANVAS

PaintEditor

Color · Fill · Pencil · Eraser · Ellipse · Rectangle · Line

SAVE

CLEAR

DRAWING OVER A CANVAS USING MENU TOOLS

VIBGYOR EFFECT

Notepad

Notepad

| File | Edit | Format | Help | PaintEditor |

New   Ctrl+N
Open   Ctrl+O
Save   Ctrl+S
Save As
Print Preview

Print   Ctrl+P

Exit   Ctrl+X

Notepad   —   □   ✕

| File | Edit | Format | Help | PaintEditor |

Notepad

File   Edit   Format   Help   PaintEditor

G.S. college of commerce and economics

TESTING

Testing

Testing Procedure:

Testing phase was included on our project in order to get an idea when the errors located into our project. Testing is vital to the success of the system. System testing makes a logical assumption that if all the parts of the system are correct, the goal will be successfully achieved. Inadequate testing or not testing leads to errors that may not appear at the same instance.

➢ This creates two problems:

1) The time lag between the causes and the appearance of the problem (the longer the time interval, the more complicated the problem has become), and

2) The effect of the system errors on files and records within the system. A small system error can conceivably explode into a much larger problem.

Testing Techniques:

1) <u>System Testing:</u> In our project we have used this particular testing to ensure that the system is working correctly or not. It is a testing in which testing is done to check that by putting the software in different environment i.e. (in different operating systems) is working or not.

2) <u>Load Testing:</u> Load Testing is also known as performance testing which checks the overall performance of the project. In our project we have also used this testing which helps us to check the system's behaviour under different loads. Testing of an application under heavy loads on the particular desktop application is to be determine at what point the system's response time degrades or fails

3) <u>Stress Testing:</u> This particular testing is conducted to find the performance of the system in peak hours, it raises to how much the system can face. We have done the testing of this project and we have seen that software can work in any condition.

4) <u>Documentation Testing:</u> Documentation Testing is necessary for the project.

VALIDATION CHECK

The process of evaluating web-based application during the development process or at the end of the development process to determine whether it satisfied information requirement. Validation testing ensures that the product actually meets the user needs. It can also have defined as to demonstrate that the information fulfills its intended use when deployed on appropriate environment.

Validation testing can be best demonstrated. The web-based application under test is evaluated during this type of testing.

VALIDATION INPUT TRANSACTION: -

Validation input data is largely done through website which is the programmer's responsibility but it is important that system analyst must know what a common problem might in validation a transaction. Business committed to quality will include validation checks a part of their routine website.

• Submitting the wrong data to system.

• Submitting the data by an unauthorized person.

• Asking the system to perform an unacceptable function.

VALIDATION INPUT DATA: -

It is essential that the input data themselves along with the transaction requested are valid. Several texts can be incorporated into website to ensure the validity. We consider many possible ways to validate input and they are as follows:

- Test for missing data.

- Test for correct field length.

- Test for range or reasonable.

- Test for comparison with stored data.

FUTURE SCOPE

OF PROJECT

FUTURE SCOPE OF PROJECT

We think that not a single project is ever considered as complete forever because our mind is always thinking new and our necessities is increasing day-by-day. The project is made to help user create a piece of art to use it somewhere else as informative tool. As the technology is being advanced the way of life is changing accordance. everyday technology is surpassing it's ambit . In future we will try to convert the 2D model of geometric shape into 3D model to enhance transparency and to give real life experience to users moreover we will add some menu tools to enhance the functionality of our application.

In addition to above improvements, we will try to add the notepad functionalities as well as some controls by which user could fill the   selected colours as per his/her convenience inside a drawn shape. moreover we are aiming to develop a system where user could play around with text and drawing , even more he/she could create his/her own watermark to bring it in use in other documents.

CONCLUSION

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The project entitled "PAINT EDITOR" is Desktop Application it is develop using the Frontend as windows forms library and Backend as C#.NET . However, a lot of features are already incorporated in this project. The main feature of this application is that a user can add his/her art of arrangement of colourfull drawing and different geometrical shapes.

In short we could conclude that-

Overall user can draw a piece of art on a blank canvas , on the same time he/she can use different shapes and colours to give his drawing a mesmerising and enthralling effect.

User can create a elegant piece of art and can save the image of it to use it for future prospective as image for inserting inside a particular document.

Unlike Microsoft paint, using paint editor you could fill VIBGYOR(i.e. Violet ,indigo ,blue ,green ,yellow, orange ,red) colors inside a geometrical shape at one instance .

BIBLIOGRAPHY

Bibliography & References

Book Reference:

1) C# yellow book

 -Rob Miles

  (University Of Hull)

2) System Analysis and Design

  -Elias Awad
   (Galgotia Publications P.)

Websites:

1) http://www.w3school.com
2) http://www.tutorials.com
3) http://www.dynamicdrive.com
4) http://www.c#corner.com
5) http://docs.microsoft.com/dotnet//documentation

A
PROJECT SYNOPSIS
ON

PAINTEDITOR

Submitted to

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

B.Com. (Computer Application) Final Year

Synopsis Submitted by
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2021-2022

1. Introduction: (Write 4 to 5 lines)
Paint editor is desktop application which will help the user to create his own beautifull piece of art using the functions available in application. The function inserted in application is copious to create an elegant sketch . An application with good-looking inrtface can be used to crete sketch within application as all the ample components brought to one place

2. Objectives of the project: (write only 5 points)
A_ Painteditor is a desktop application which can be used to draw a sketch
B_ Even it is useful to paint anf edit the project
C_ One can create his own watermark
D_User can include geometrical drawings in peiceart to create elegant sketch

3. Project Category: DESKTOP APPLICATION

4. Tools/ Platform/ Languages to be used:
Language to be used: c#
Software to be used: visual studio
Operating system: windows 10

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

  I. We will provide many new tools which make our our editing procedure easier
Ii. Encryption algorithm will be provided to files to be saved .
Iii. Watermark creation feature will be introduced