1. **Develop a simple ASP.NET web form that generates the front cover for a magazine. The form should provide the options for selecting the image, background color, changing font size, colour etc. Input messages must be taken from the user so as to display it on the front cover with legible font family and font size. The controls added must be proportionate to the web page size.**

**Code:**

**CoverGenerator.aspx:**

<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="CoverGenerator.aspx.cs" Inherits="q4.CoverGenerator" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">

<head runat="server">

<title>Front Cover Generator</title>

</head>

<body>

<form id="form1" runat="server">

<div style="height: auto; width: 100%">

<asp:Panel ID="ConfigureDiv" runat="server" style="padding: 15px; border-style: inset; border-width: medium; height: 705px; width: 300px; font-family: Calibri; font-size: medium; font-weight: bold; background-color: #5C87D8; position: absolute; z-index: auto; display: block; float: left; cursor: auto; clip: rect(auto, auto, auto, auto); color: #FFFFFF; top: 15px; left: 10px; overflow: scroll;">

Choose the bacground image:<br />

<asp:DropDownList ID="ImageDropDownList" runat="server" AutoPostBack="True" OnSelectedIndexChanged="ControlChanged" Height="25px" Width="175px">

<asp:ListItem>None</asp:ListItem>

<asp:ListItem>Abstract Image 1</asp:ListItem>

<asp:ListItem>Abstract Image 2</asp:ListItem>

<asp:ListItem>Abstract Image 3</asp:ListItem>

</asp:DropDownList><br /><br />

Choose the background colour:<br />

<asp:DropDownList ID="BackgoundDropDownList" runat="server" AutoPostBack="true" OnSelectedIndexChanged="ControlChanged" Height="25px" Width="175px"> </asp:DropDownList><br /><br />

Choose the text colour:<br />

<asp:DropDownList ID="TextDropDownList" runat="server" AutoPostBack="True" OnSelectedIndexChanged="ControlChanged" Height="25px" Width="175px"></asp:DropDownList><br /><br />

Choose the font name:<br />

<asp:DropDownList ID="FontDropDownList" runat="server" AutoPostBack="True" OnSelectedIndexChanged="ControlChanged" Height="25px" Width="175px"></asp:DropDownList><br /><br />

Enter the font size:<br />

<asp:TextBox ID="SizeTextBox" runat="server" AutoPostBack="true" OnTextChanged="ControlChanged" Height="16px" Width="175px"></asp:TextBox><br /><br />

Choose the border style:<br />

<asp:RadioButtonList ID="BorderRadioButtonList" runat="server" AutoPostBack="True" OnSelectedIndexChanged="ControlChanged" Height="23px" RepeatColumns="2" Width="175px">

</asp:RadioButtonList><br />

Enter the text to be displayed on the cover:<br />

<asp:TextBox ID="GreetingsTextBox" runat="server" AutoPostBack="True" OnTextChanged="ControlChanged" Height="75px" Rows="2" TextMode="MultiLine" Width="175px"></asp:TextBox>

<br /><br />

<br />

<asp:Button ID="PreviewButton" runat="server" Text="Preview" OnClick="PreviewButton\_Click" Height="31px" Width="76px" />

&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;

<asp:Button ID="ClearButton" runat="server" Text="Clear" OnClick="ClearButton\_Click" Height="31px" Width="76px" />

<br />

<br />

<br />

<br />

</asp:Panel>

<asp:Panel ID="CoverPanel" runat="server" style="left: 355px; position: absolute; top:18px; background-position: center center" Height="545px" Width="358px" HorizontalAlign="Center">

<br /><br />&nbsp;

<asp:Label ID="GreetingsLabel" runat="server" Height="160px" Width="300px"></asp:Label>

<br />

</asp:Panel>

<asp:Panel ID="EditButtonPanel" runat="server" style="left: 355px; position: absolute; top:583px" Height="30px" Width="358px" HorizontalAlign="Center">

<asp:Button ID="Button1" runat="server" Text="Edit" OnClick="Button1\_Click" Width="60px" Height="34px" />

</asp:Panel>

</div>

</form>

</body>

</html>

**CoverGenerator.aspx.cs:**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Web.UI.HtmlControls;

using System.Drawing.Text;

namespace q4

{

public partial class CoverGenerator : System.Web.UI.Page

{

protected void Page\_Load(object sender, EventArgs e)

{

if (this.IsPostBack != true)

{

//Get list of available colours

string[] colours = Enum.GetNames(typeof(KnownColor));

BackgoundDropDownList.DataSource = colours;

BackgoundDropDownList.DataBind();

BackgoundDropDownList.SelectedIndex = 163;

TextDropDownList.DataSource = colours;

TextDropDownList.DataBind();

TextDropDownList.SelectedIndex = 34;

//Get list of available font families

InstalledFontCollection fonts = new InstalledFontCollection();

foreach (FontFamily family in fonts.Families)

FontDropDownList.Items.Add(family.Name);

//Get the border styles

string[] borderStyles = Enum.GetNames(typeof(BorderStyle));

BorderRadioButtonList.DataSource = borderStyles;

BorderRadioButtonList.DataBind();

BorderRadioButtonList.SelectedIndex = 0;

//Choose default image

ImageDropDownList.SelectedIndex = -1;

//Make cover panel visible

CoverPanel.Visible = true;

//Make edit button not visible

EditButtonPanel.Visible = false;

}

}

private void UpdateCard()

{

//Update the colours

CoverPanel.BackColor = Color.FromName(BackgoundDropDownList.SelectedItem.Text);

GreetingsLabel.ForeColor = Color.FromName(TextDropDownList.SelectedItem.Text);

//Update background image

if (ImageDropDownList.SelectedIndex != 0)

{

string imageURL = "~/Images/" + ImageDropDownList.SelectedItem.Text + ".jpg";

CoverPanel.BackImageUrl = imageURL;

}

else

CoverPanel.BackImageUrl = "";

//Update the font name and size

GreetingsLabel.Font.Name = FontDropDownList.SelectedItem.Text;

try

{

if (Int32.Parse(SizeTextBox.Text) > 0)

{

GreetingsLabel.Font.Size = Int32.Parse(SizeTextBox.Text);

}

}

catch

{

}

//Get the correct TypeConverter for BorderStyle enumeration

TypeConverter converter = TypeDescriptor.GetConverter(typeof(BorderStyle));

//Upfate the border style

CoverPanel.BorderStyle = (BorderStyle)converter.ConvertFromString(BorderRadioButtonList.SelectedItem.Text);

//Set the text

GreetingsLabel.Text = GreetingsTextBox.Text;

}

protected void ControlChanged(Object sender, EventArgs e)

{

//Update and refresh the cover

UpdateCard();

}

protected void PreviewButton\_Click(object sender, EventArgs e)

{

//Update and refresh the cover and hide the div

UpdateCard();

ConfigureDiv.Visible = false;

EditButtonPanel.Visible = true;

}

protected void Button1\_Click(object sender, EventArgs e)

{

//Make the properties visible to configure and hide the edit button

ConfigureDiv.Visible = true;

EditButtonPanel.Visible = false;

}

protected void ClearButton\_Click(object sender, EventArgs e)

{

//Clear entered texts and selections and set it back to default

BackgoundDropDownList.SelectedIndex = 163;

TextDropDownList.SelectedIndex = 34;

BorderRadioButtonList.SelectedIndex = 0;

ImageDropDownList.SelectedIndex = -1;

FontDropDownList.SelectedIndex = -1;

SizeTextBox.Text = "";

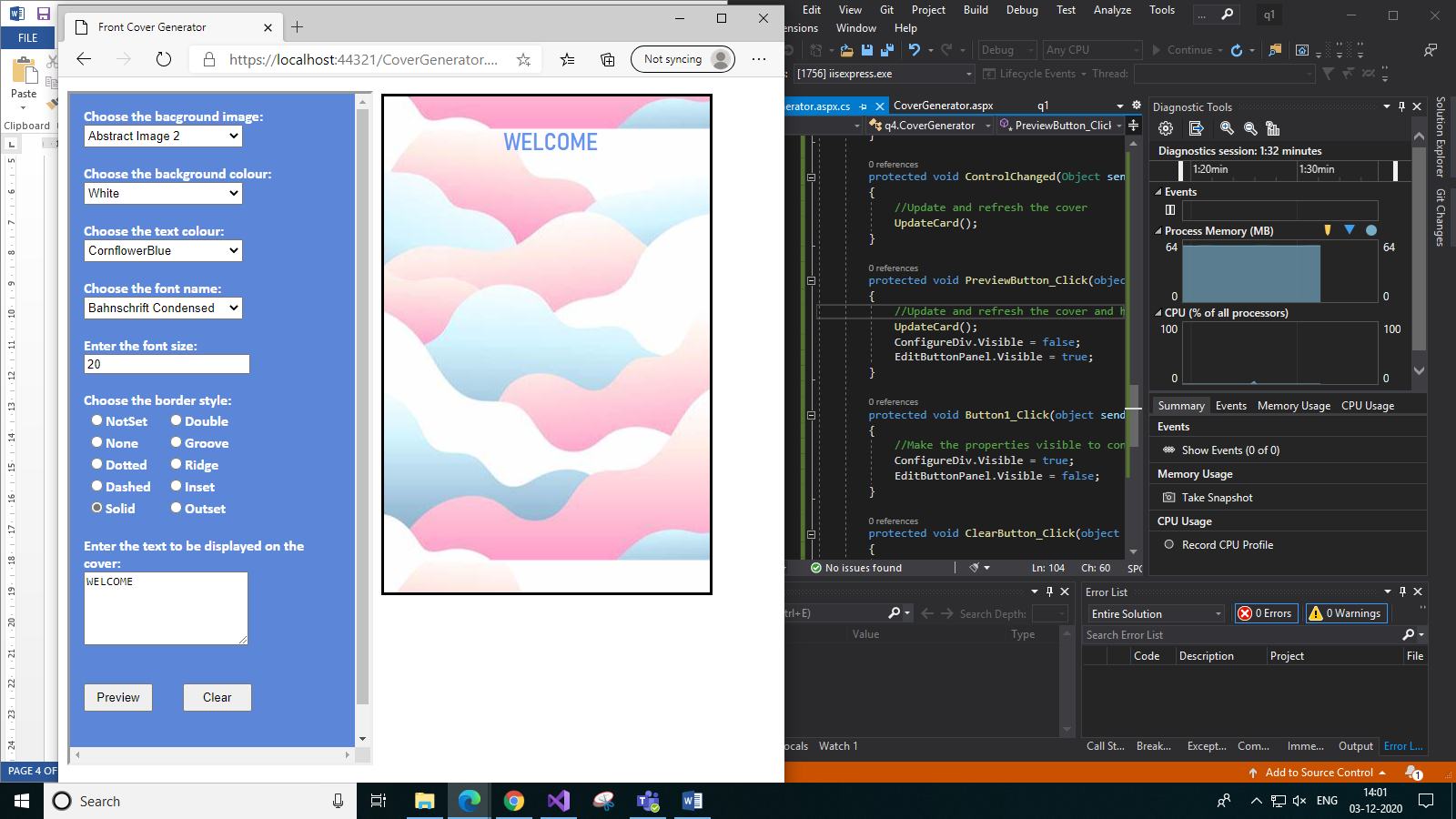
GreetingsTextBox.Text = "";

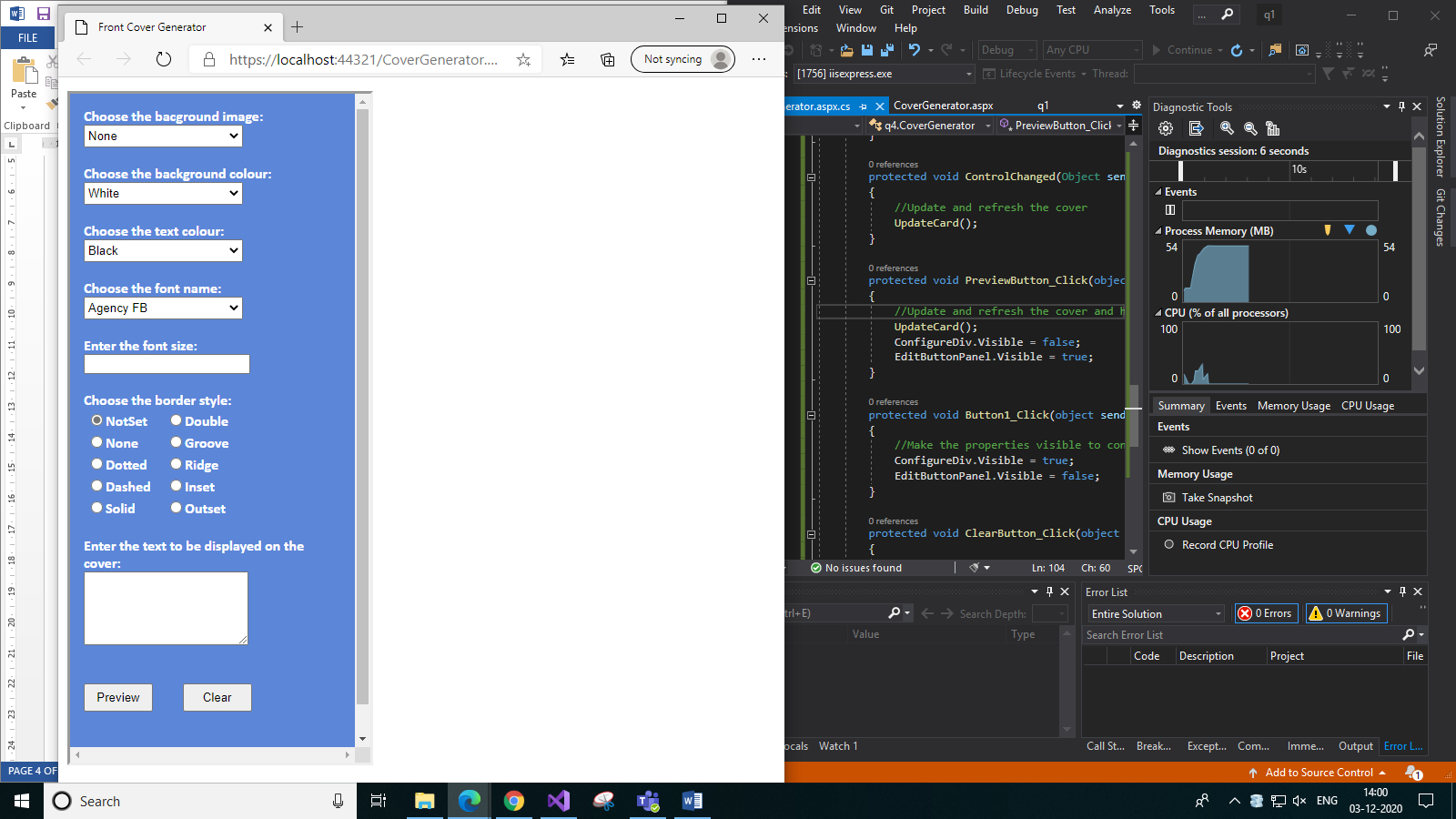
UpdateCard();

}

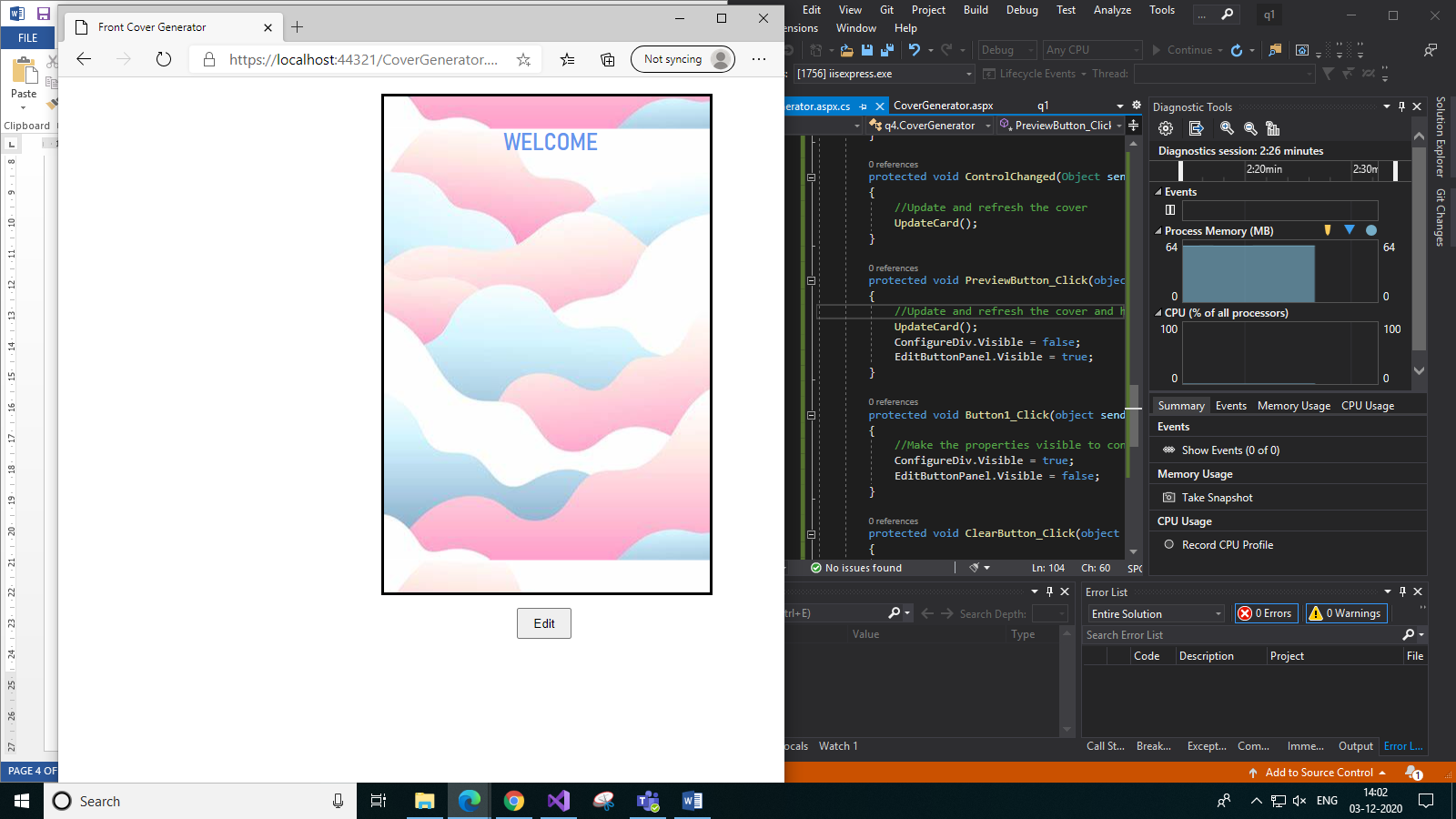
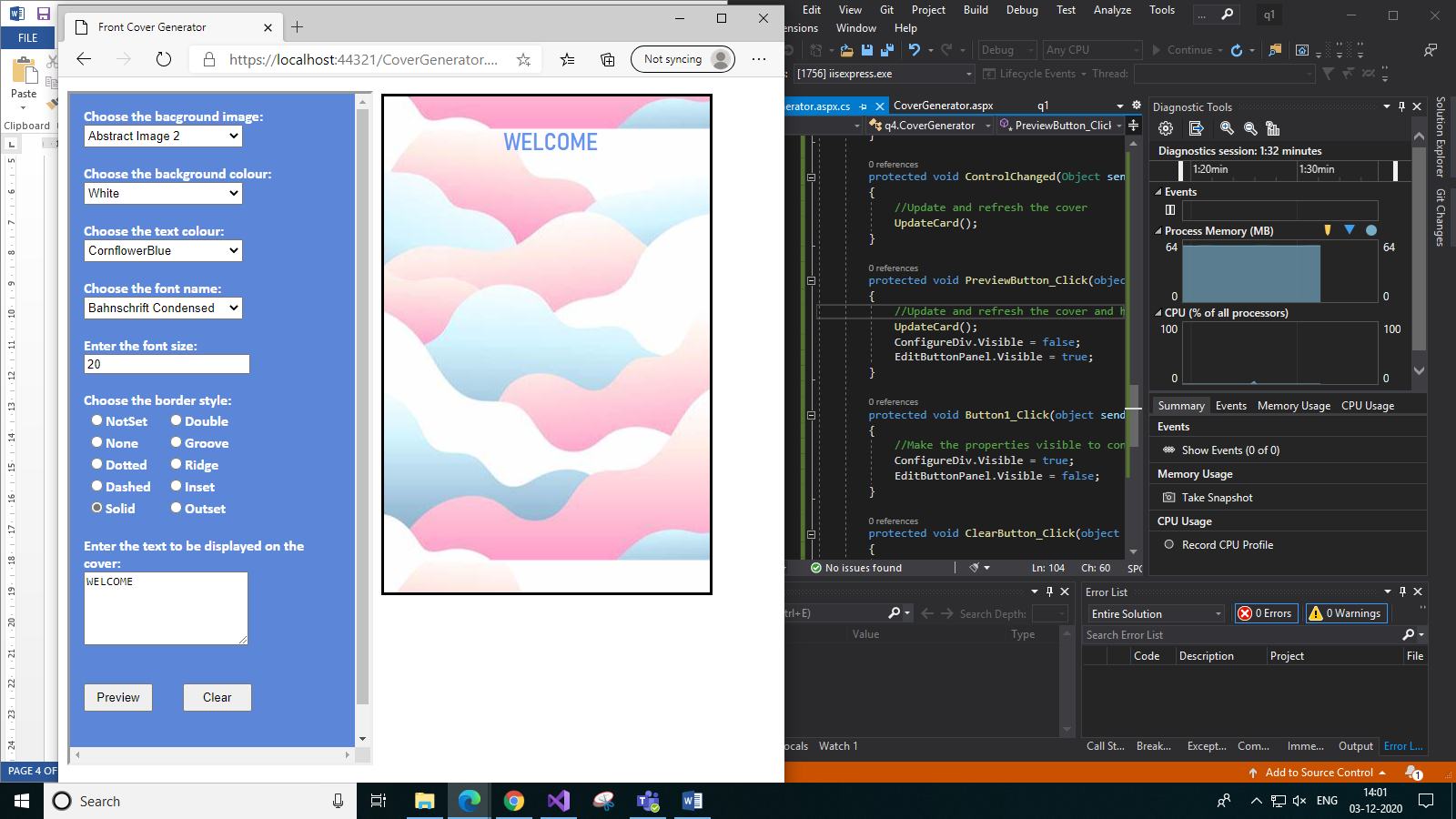
}

}

**Output:**



*a) Default configurations. On clicking Clear it will default to this. b) On selecting the properties*



*c) On clicking Preview d) On clicking Edit*

1. **Create a web form using web controls, with employee ids in dropdown list. When the user selects the employee id, his image should be displayed in the image control. Let the next focus be on the TextBox named “name of the employee”. Use another TextBox for date of joining. Add a button as “Am I Eligible for Promotion”. On clicking the button, if he has more than 5 years of experience, then display “YES” else “NO” in the label control.**

**Code:**

**Employee.aspx:**

<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Employee.aspx.cs" Inherits="q2.Employee" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">

<head runat="server">

<title> Employee Promotion</title>

</head>

<body>

<form id="form1" runat="server">

<div style="padding: 15px; margin: 15px; height: 282px; width: 153px; font-size: small; font-family: 'Lucida Sans', 'Lucida Sans Regular', 'Lucida Grande', 'Lucida Sans Unicode', Geneva, Verdana, sans-serif;">

<br />

Select Employee ID:<br />

<asp:DropDownList ID="EmployeeIDList" runat="server" AutoPostBack="true" OnSelectedIndexChanged="UpdateInfo" Height="30px" Width="145px"></asp:DropDownList>&nbsp;&nbsp;&nbsp;

<br />

<br />

Name of Employee:<br />

<asp:TextBox ID="EmployeeTextBox" runat="server" Height="30px" Width="145px"></asp:TextBox>

<br />

<br />

Date of Joining:<br />

<asp:TextBox ID="DOJTextBox" runat="server" Height="30px" Width="145px" TextMode="Date"></asp:TextBox>

<br />

<br />

<asp:Button ID="EligibleButton" runat="server" Text="Am I Eligible?" OnClick="PrintResult" Height="30px" Width="130px" />

<br />

<br />

<asp:Label ID="ResultLabel" runat="server"></asp:Label>

<br />

<br />

</div>

<div style="left: 220px; position: absolute; top:44px; height: 150px; width: 150px;">

<asp:Image ID="EmployeeImage" runat="server" Height="150px" Width="150px" ImageAlign="Middle" />

</div>

</form>

</body>

</html>

**Employee.aspx.cs:**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

namespace q2

{

public partial class Employee : System.Web.UI.Page

{

protected void Page\_Load(object sender, EventArgs e)

{

if (this.IsPostBack == false)

{

//Add Employee IDs to the dropdown list

EmployeeIDList.Items.Add("");

EmployeeIDList.Items.Add("1001");

EmployeeIDList.Items.Add("1002");

EmployeeIDList.Items.Add("1003");

EmployeeIDList.Items.Add("1004");

EmployeeIDList.Items.Add("1005");

//EmployeeIDList.Items.Insert(0, new ListItem(string.Empty, string.Empty));

EmployeeIDList.SelectedIndex = -1;

}

}

protected void UpdateInfo(Object sender, EventArgs e)

{

//Select Employee image

if (EmployeeIDList.SelectedIndex != 0)

{

string imageurl = "~/Images/" + EmployeeIDList.SelectedItem.Text + ".png";

EmployeeImage.ImageUrl = imageurl;

}

else

EmployeeImage.ImageUrl = "";

//Clear the other selections

EmployeeTextBox.Text = "";

DOJTextBox.Text = "";

ResultLabel.Text = "";

}

protected void PrintResult(object sender, EventArgs e)

{

//Find years of experience

DateTime date = DateTime.Today;

int year = date.Year;

string[] data = DOJTextBox.Text.Split('-');

var JoinedYear = data[0];

if (year - Int32.Parse(JoinedYear) > 5)

ResultLabel.Text = "YES";

else

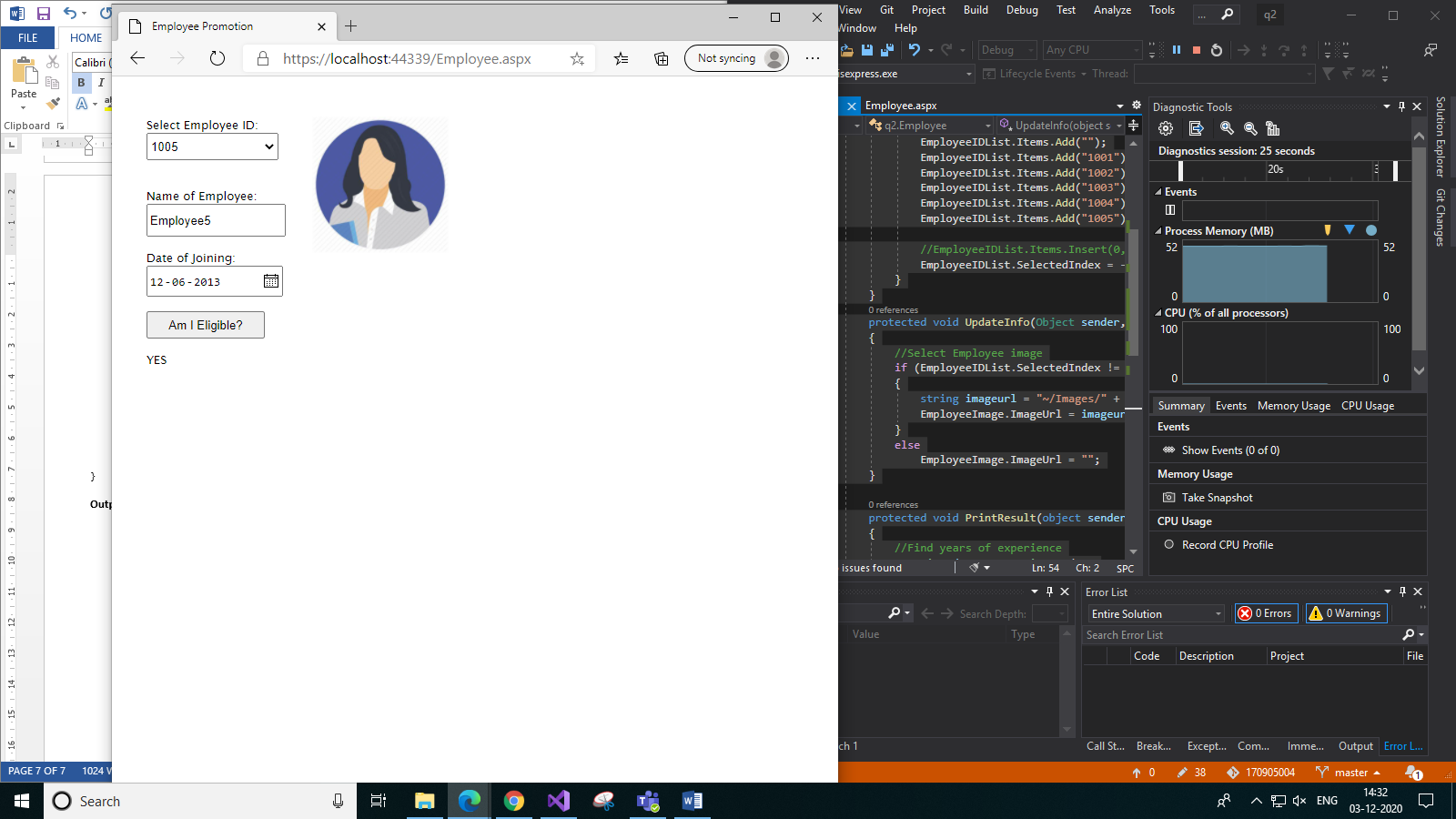
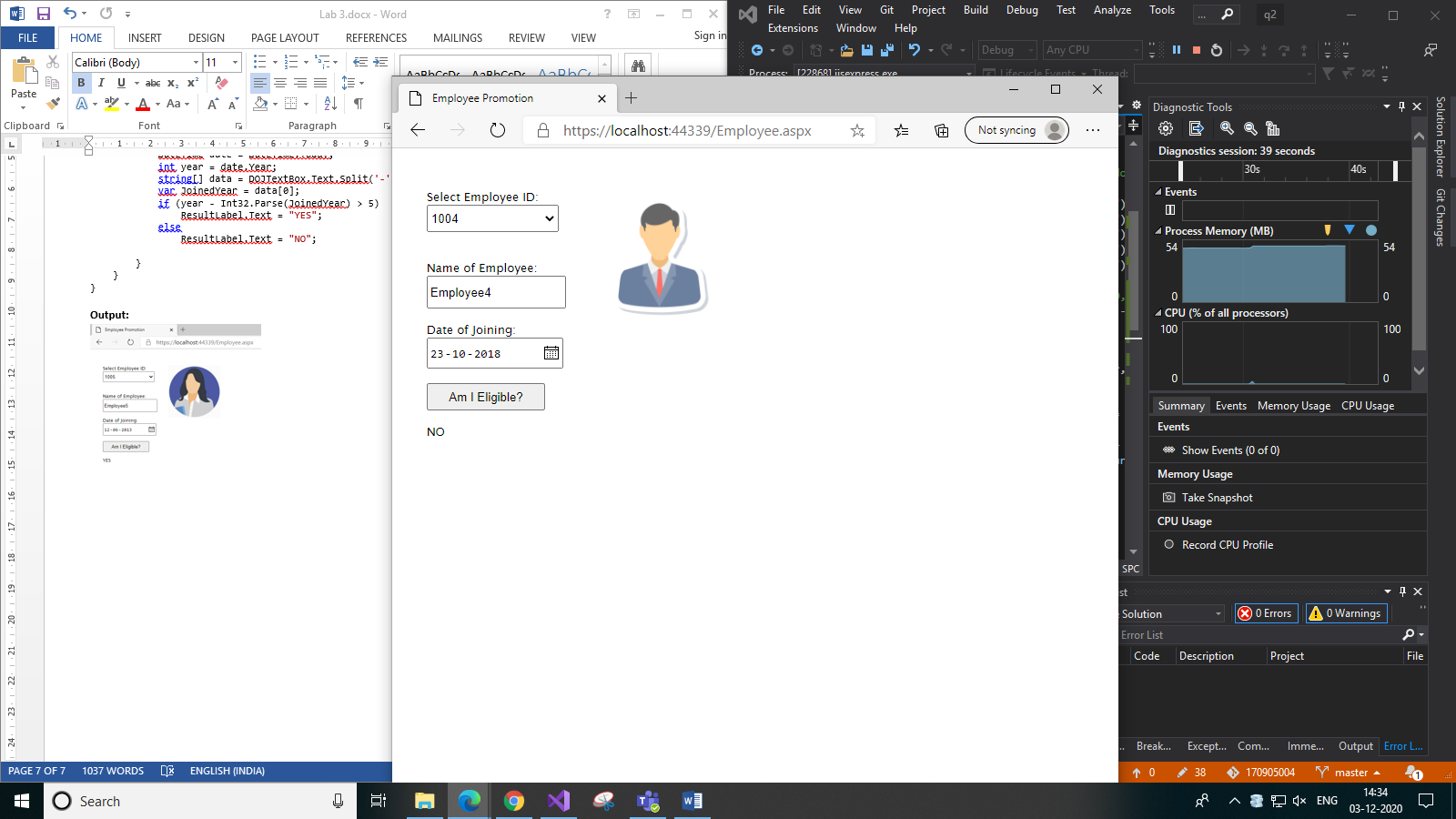
ResultLabel.Text = "NO";

}

}

}

**Output:**



1. **Develop a simple dynamic e-card generator. E-card generator should provide options to select background colour, type of font, font size. An image can be included in the e-card with an option to provide input message.**

**Code:**

**e-card Generator.aspx:**

<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="CoverGenerator.aspx.cs" Inherits="q4.CoverGenerator" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">

<head runat="server">

<title>e-Card Generator</title>

</head>

<body>

<form id="form1" runat="server">

<div style="height: auto; width: 100%">

<asp:Panel ID="ConfigureDiv" runat="server" style="padding: 15px; border-style: inset; border-width: medium; height: 508px; width: 300px; font-family: Calibri; font-size: medium; font-weight: bold; background-color: #5C87D8; position: absolute; z-index: auto; display: block; float: left; cursor: auto; clip: rect(auto, auto, auto, auto); color: #FFFFFF; top: 15px; left: 10px; overflow: scroll;">

Choose the background colour:<br />

<asp:DropDownList ID="BackgoundDropDownList" runat="server" AutoPostBack="true" OnSelectedIndexChanged="ControlChanged" Height="25px" Width="175px"> </asp:DropDownList><br /><br />

Choose the font name:<br />

<asp:DropDownList ID="FontDropDownList" runat="server" AutoPostBack="True" OnSelectedIndexChanged="ControlChanged" Height="25px" Width="175px"></asp:DropDownList><br /><br />

Enter the font size:<br />

<asp:TextBox ID="SizeTextBox" runat="server" AutoPostBack="true" OnTextChanged="ControlChanged" Height="16px" Width="175px"></asp:TextBox><br /><br />

Choose the image to be added:<br />

<asp:DropDownList ID="ImageDropDownList" runat="server" AutoPostBack="True" OnSelectedIndexChanged="ControlChanged" Height="25px" Width="175px">

<asp:ListItem>None</asp:ListItem>

<asp:ListItem>Abstract Image 1</asp:ListItem>

<asp:ListItem>Abstract Image 2</asp:ListItem>

<asp:ListItem>Abstract Image 3</asp:ListItem>

</asp:DropDownList><br /><br />

Enter the text to be displayed on the card:<br />

<asp:TextBox ID="GreetingsTextBox" runat="server" AutoPostBack="True" OnTextChanged="ControlChanged" Height="75px" Rows="2" TextMode="MultiLine" Width="175px"></asp:TextBox>

<br /><br />

<br />

<asp:Button ID="PreviewButton" runat="server" Text="Preview" OnClick="PreviewButton\_Click" Height="31px" Width="76px" />

&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;

<asp:Button ID="ClearButton" runat="server" Text="Clear" OnClick="ClearButton\_Click" Height="31px" Width="76px" />

<br />

<br />

<br />

<br />

</asp:Panel>

<asp:Panel ID="CoverPanel" runat="server" style="left: 355px; position: absolute; top:18px; background-position: center center; text-align: center" Height="545px" Width="358px" HorizontalAlign="Center">

<br /><br />&nbsp;

<asp:Label ID="GreetingsLabel" runat="server" Height="160px" Width="300px"></asp:Label>

<asp:Image ID="Image1" runat="server" Height="255px" Width="270px" />

<br />

</asp:Panel>

<asp:Panel ID="EditButtonPanel" runat="server" style="left: 355px; position: absolute; top:583px" Height="30px" Width="358px" HorizontalAlign="Center">

<asp:Button ID="Button1" runat="server" Text="Edit" OnClick="Button1\_Click" Width="60px" Height="34px" />

</asp:Panel>

</div>

</form>

</body>

</html>

**e-card Generator.aspx.cs:**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Web.UI.HtmlControls;

using System.Drawing.Text;

namespace q4

{

public partial class CoverGenerator : System.Web.UI.Page

{

protected void Page\_Load(object sender, EventArgs e)

{

if (this.IsPostBack != true)

{

//Get list of available colours

string[] colours = Enum.GetNames(typeof(KnownColor));

BackgoundDropDownList.DataSource = colours;

BackgoundDropDownList.DataBind();

BackgoundDropDownList.SelectedIndex = 163;

//Get list of available font families

InstalledFontCollection fonts = new InstalledFontCollection();

foreach (FontFamily family in fonts.Families)

FontDropDownList.Items.Add(family.Name);

//Choose default image

ImageDropDownList.SelectedIndex = -1;

//Make cover panel visible

CoverPanel.Visible = true;

//Make edit button not visible

EditButtonPanel.Visible = false;

}

}

private void UpdateCard()

{

//Update the colours

CoverPanel.BackColor = Color.FromName(BackgoundDropDownList.SelectedItem.Text);

//Update image

if (ImageDropDownList.SelectedIndex != 0)

{

Image1.ImageUrl = "~/Images/" + ImageDropDownList.SelectedItem.Text + ".jpg";

}

else

Image1.ImageUrl = "";

//Update the font name and size

GreetingsLabel.Font.Name = FontDropDownList.SelectedItem.Text;

try

{

if (Int32.Parse(SizeTextBox.Text) > 0)

{

GreetingsLabel.Font.Size = Int32.Parse(SizeTextBox.Text);

}

}

catch

{

}

//Set the text

GreetingsLabel.Text = GreetingsTextBox.Text;

}

protected void ControlChanged(Object sender, EventArgs e)

{

//Update and refresh the cover

UpdateCard();

}

protected void PreviewButton\_Click(object sender, EventArgs e)

{

//Update and refresh the cover and hide the div

UpdateCard();

ConfigureDiv.Visible = false;

EditButtonPanel.Visible = true;

}

protected void Button1\_Click(object sender, EventArgs e)

{

//Make the properties visible to configure and hide the edit button

ConfigureDiv.Visible = true;

EditButtonPanel.Visible = false;

}

protected void ClearButton\_Click(object sender, EventArgs e)

{

//Clear entered texts and selections and set it back to default

BackgoundDropDownList.SelectedIndex = 163;

ImageDropDownList.SelectedIndex = 0;

FontDropDownList.SelectedIndex = -1;

SizeTextBox.Text = "";

GreetingsTextBox.Text = "";

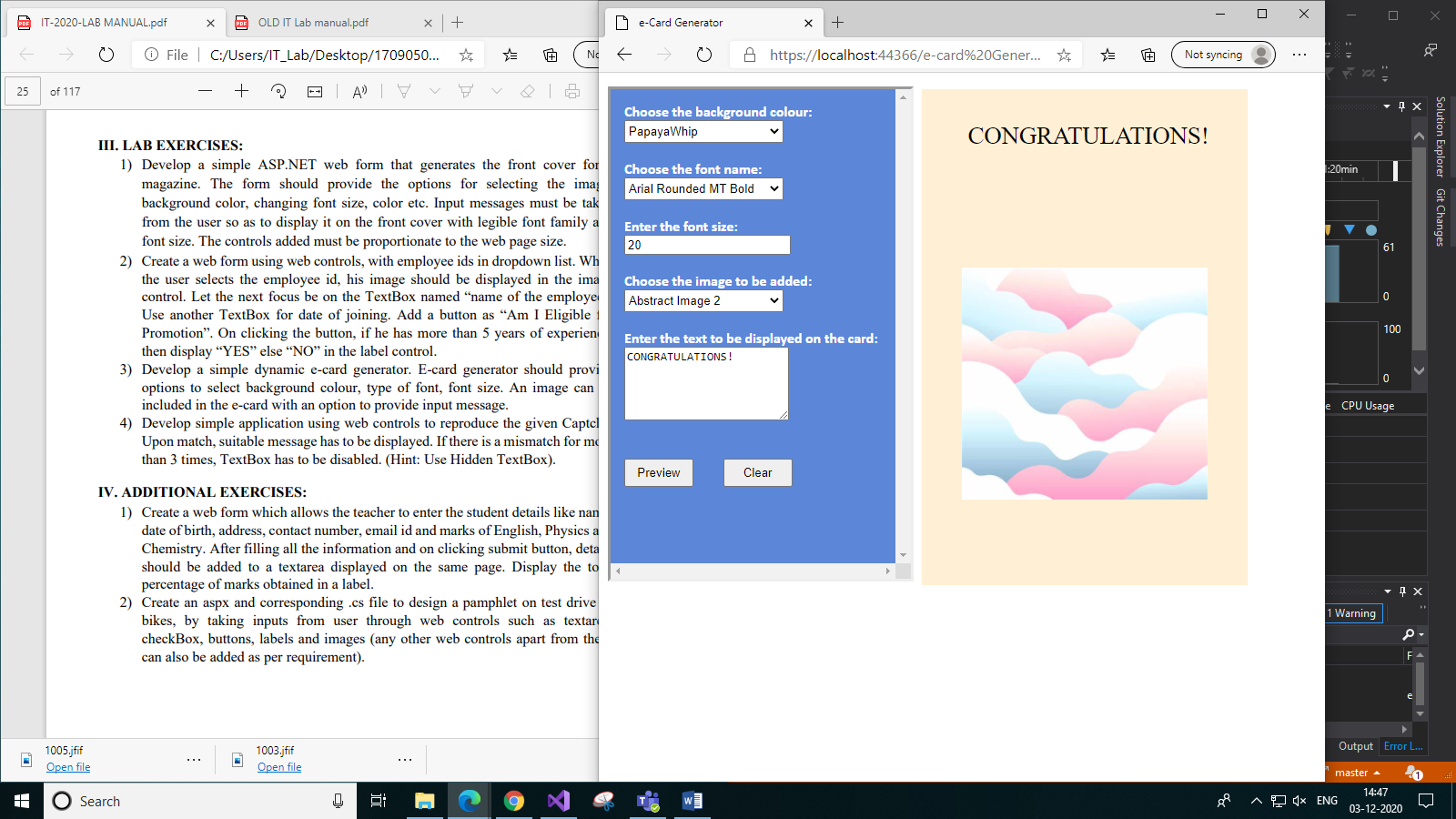
UpdateCard();

}

}

}

**Output:**



1. **Develop simple application using web controls to reproduce the given Captcha. Upon match, suitable message has to be displayed. If there is a mismatch for more than 3 times, TextBox has to be disabled. (Hint: Use Hidden TextBox).**

**Code:**

**Captcha.aspx:**

<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="captcha.aspx.cs" Inherits="q4.captcha" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">

<head runat="server">

<title>Captcha</title>

</head>

<body>

<form id="form1" runat="server">

<div style="height: 213px; width: 268px">

&nbsp;&nbsp;&nbsp;&nbsp;

<br />

&nbsp;&nbsp;&nbsp; Enter the text<br />

&nbsp;&nbsp;&nbsp;

<br />

&nbsp;

<asp:Image ID="CaptchaImage" runat="server" Height="44px" ImageUrl="~/Images/botdetect-captcha-cut.jpg" Width="185px" />

<br />

<br />

&nbsp;&nbsp;&nbsp;

<asp:TextBox ID="CaptchaTextBox" runat="server" style="margin-top: 0px" Width="157px" OnTextChanged="AttemptMade" AutoPostBack="true" Height="18px"></asp:TextBox>

<br />

<br />

&nbsp;&nbsp;&nbsp;

<asp:Label ID="ResultLabel" runat="server"></asp:Label>

</div>

</form>

</body>

</html>

**Captcha.aspx.cs:**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

namespace q4

{

public partial class captcha : System.Web.UI.Page

{

//To keeP a count on number of tries

static int count;

//Initialise the text in each image

string[] text = { "T4Y9", "D56Y", "3G6B", "P35B" };

//To choose a random captcha from tthe set of images

Random r = new Random();

static int num;

protected void Page\_Load(object sender, EventArgs e)

{

if(this.IsPostBack == false)

{

count = 0;

num = r.Next(0, 3);

string url = "~/Images/captcha" + num.ToString() + ".jpg";

CaptchaImage.ImageUrl = url;

}

}

protected void AttemptMade(object sender, EventArgs e)

{

count++;

if(count < 3)

{

string attempt = CaptchaTextBox.Text;

if(attempt == text[num])

{

ResultLabel.Text = "Correct!";

CaptchaTextBox.Text = attempt;

}

else

{

string res = "Try again. " + (3 - count).ToString() + " attempts left.";

ResultLabel.Text = res;

CaptchaTextBox.Text = "";

}

}

else

{

CaptchaTextBox.Visible = false;

ResultLabel.Text = "Too many wrong attempts.";

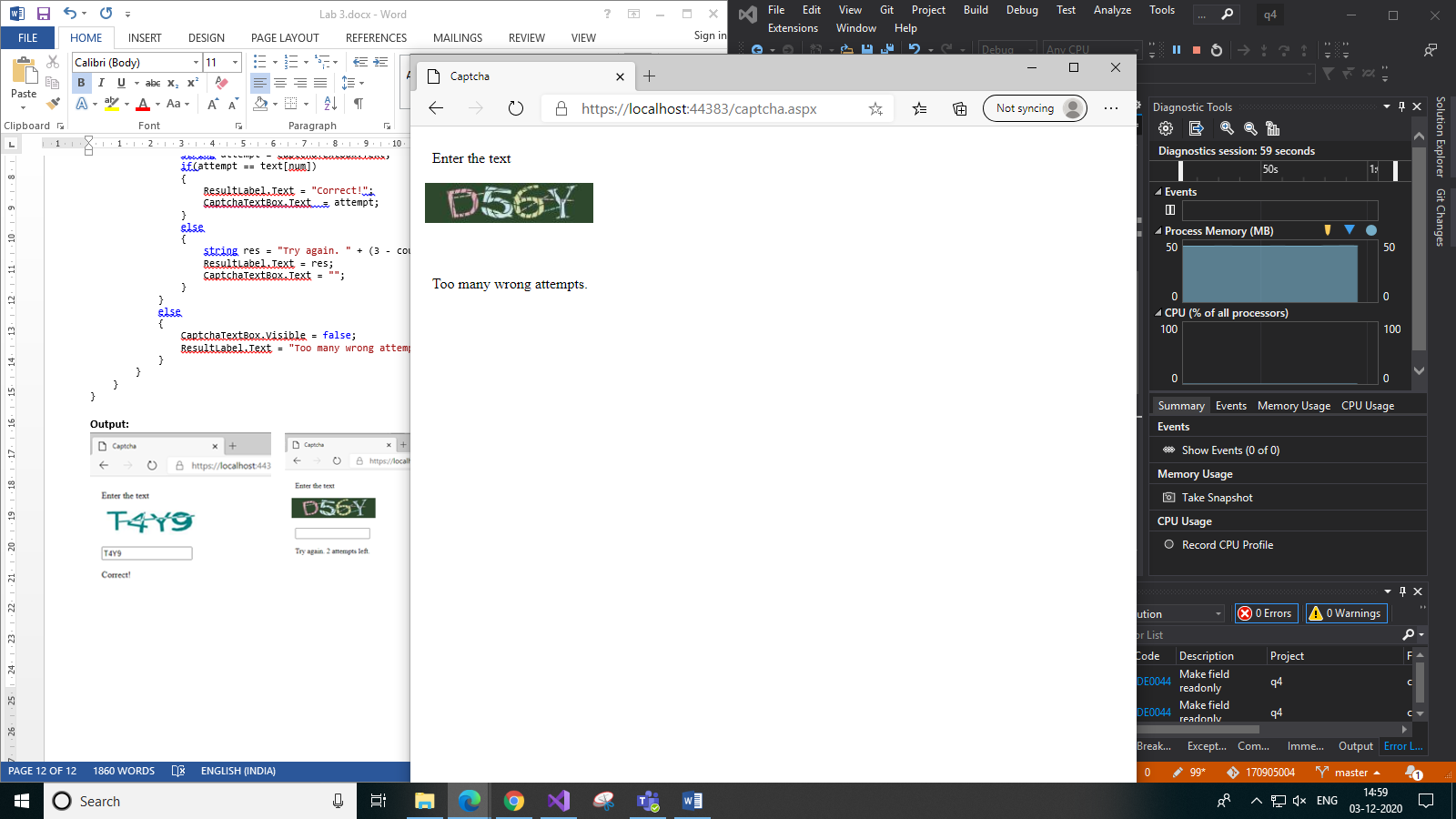
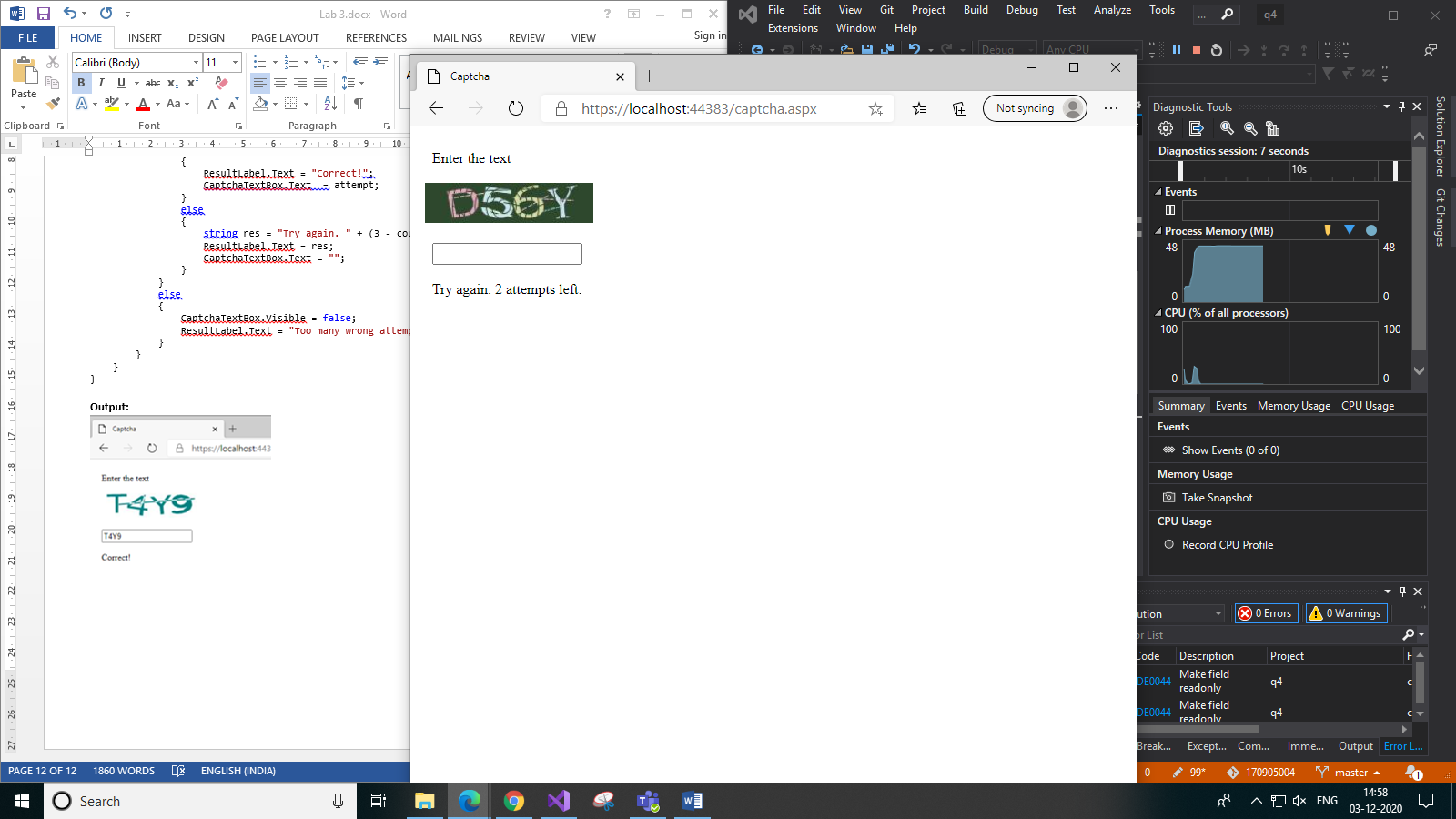
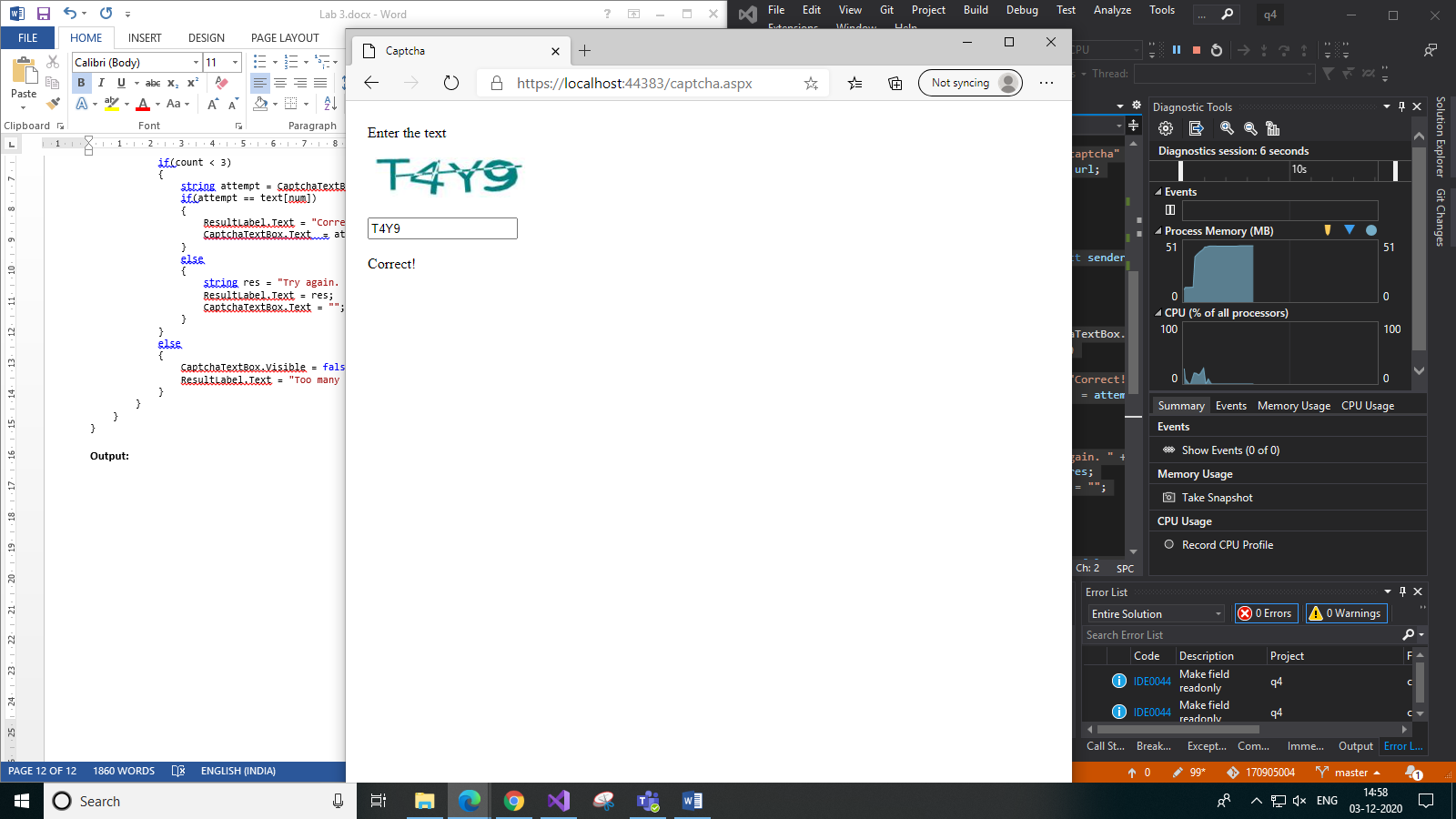
}

}

}

}

**Output:**



*a) When entered correctly b) When entered incorrectly c) On 3 incorrect attempts*