Toolbox

- All Windows Forms
- Common Controls
  - Pointer
  - Button
  - CheckBox
  - CheckListBox
  - ComboBox
  - DateTimePicker
  - Label
  - LinkLabel
  - ListBox
  - ListView
  - MaskedTextBox
  - MonthCalendar
  - NotifyIcon
  - NumericUpDown
  - PictureBox
  - ProgressBar
  - RadioButton
  - RichTextBox
  - TextBox
  - ToolTip
  - TreeView
  - WebBrowser
- Containers
- Menus & Toolbars
- Data
- Components
- Printing
- Dialogs
- WPF Interoperability
- Reporting
- Visual Basic Power Packs
- General

Form1

Button1

Button2

Button3

Solution Explorer

Search Solution Explorer (Ctrl+;)

Solution 'WindowsFormApp1' (1 of 1 Project)

- WindowsFormsApp1
  - Properties
    - AssemblyInfo.cs
    - Resources.resx
      - Resources
    - Settings.settings
      - Settings.Designer.cs
        - Settings
  - References
    - Analyzers
    - Microsoft.CSharp
    - Microsoft.Win32
    - System
    - System.Core
    - System.Data
    - System.Data.DataSetExtensions
    - System.Deployment
    - System.Drawing
    - System.Net.Http
    - System.Windows.Forms
    - System.Xml
    - System.Xml.Linq
  - App.config
  - packages.config
  - C# Program.cs
    - Program

EXPT. NO. 1

EXPT NO 1.

NAME Hello world

M T W T F S S

Page No.: 1

Date: 29/1/25

YOUVA

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

static void Main (string[] args)
{
    System.Console.WriteLine("Hello world");
    System.Console.ReadLine();
}
```

Output :-

Hello world

Teacher's Signature: _____

Output :-

Enter Marks 1 : 80
Enter Marks 2 : 80
Total : 160
Result : Pass
Percentage : 80%
Grade : A

EXPT. NO. 2. NAME Result

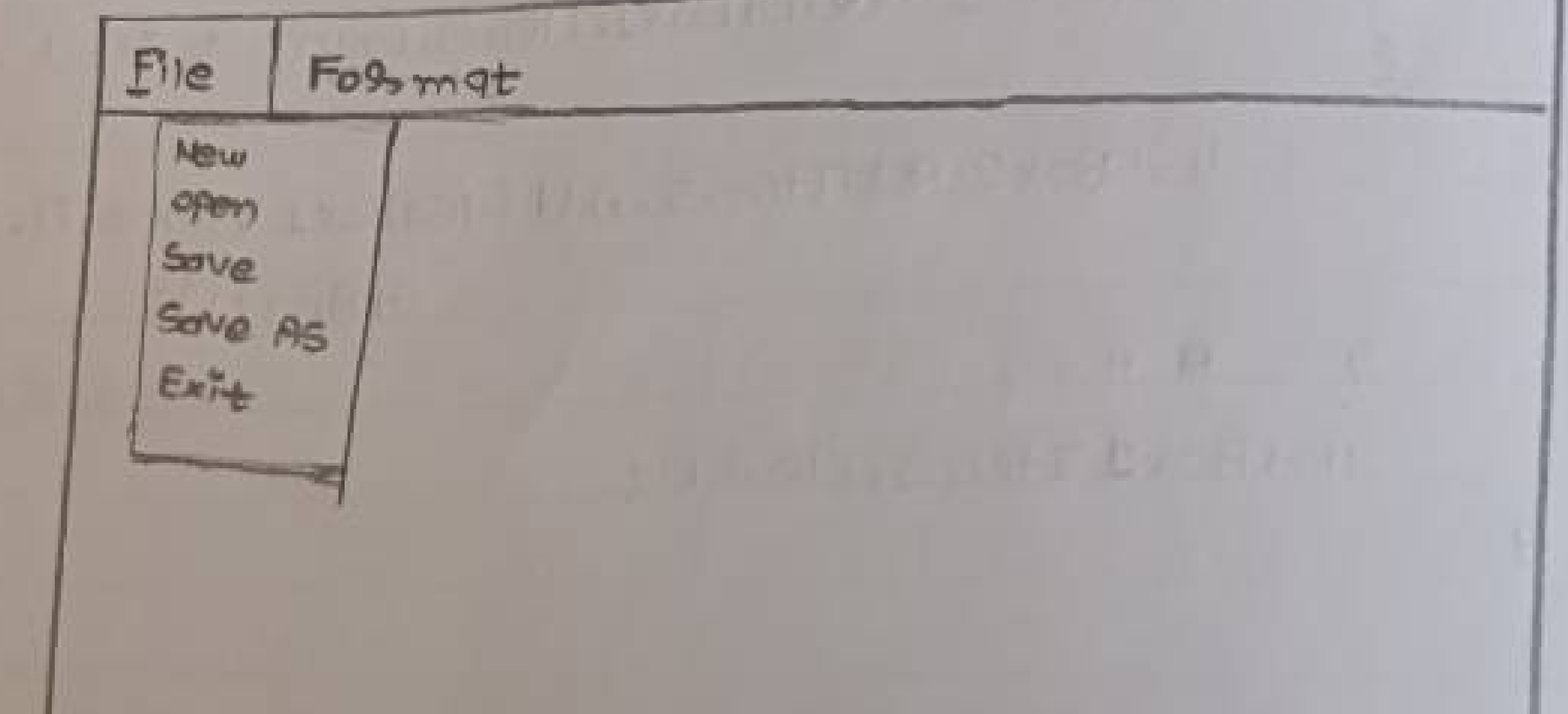
Page No. 2 | Date 30/1/25 | YOUVA

```
using System;

public class Program
{
    public static void main(String[] args)
    {
        int m1, m2, total;
        double per;
        String grade, result;
        Console.WriteLine("Enter Marks 1 : ");
        m1 = Convert.ToInt32(Console.ReadLine());
        Console.WriteLine("Enter Marks 2 :");
        m2 = Convert.ToInt32(Console.ReadLine());
        total = m1 + m2;
        if (m1 >= 40 && m2 >= 40)
        {
            result = "PASS";
            per = Convert.ToDouble(total)/2;
            if (per >= 70)
            {
                grade = "A";
            }
            else if (per >= 60)
            {
                grade = "B";
            }
```

Teacher's Signature:

```
else if (peg >= 50)
{
    grade = "C";
}
else
{
    grade= "B";
}
else
{
    result = "FAIL";
    peg = 0;
    grade = "F";
}
Console.WriteLine("Total : " +total);
Console.WriteLine("Result : " +result);
Console.WriteLine("Percentage : " +peg);
Console.WriteLine("Grade : "+grade);
Console.ReadLine();
}
}
```

Teacher's Signature:


File
Format
New
open
Save
Save AS
Exit

EXPT. NO. 4. NAME: Notepad create

Page No.: 6 | Date: 20/12/25 | YOUVA

```
using System;
using System.Windows.Forms;

namespace Notepad1
{
    public partial class Form1 : Form
    {
        String filename = "";
        String prevData = "";

        public Form1()
        {
            InitializeComponent();
        }

        private void SaveData()
        {
            if (filename == String.Empty)
            {
                prevData = richTextBox1.Text;
                SaveFileDialog SF = new SaveFileDialog();
                SF.Title = "Save File - Notepad";
                SF.Filter = "Text File |*.txt";
                SF.ShowFileDialog();
                if (SF.filename != "")
                {
```

Teacher's Signature:

EXPT. NO. | NAME

Page No.: 7 | YOUVA
Date: 20/2/25

```
            RichTextBox1.SaveFile(SF.FileName);
            filename = SF.FileName;
        }
        else
        {
            RichTextBox1.SaveFile(filename);
        }
    }

    Private void ClearData()
    {
        RichTextBox1.Text = String.Empty;
        filename = String.Empty;
        prevData = String.Empty;

    private void Save_click(Sender, EventArgs e)
    {
        SaveData();
    }

    private void open_click(Object Sender, EventArgs e)
    {
        if (filename == String.Empty)
        {
            prevData = RichTextBox1.Text;
            openFileDialog OF = new openFileDialog
            OF.Title = "open File - Notepad";
            OF.Filter = "Text File | *.txt";
```

Teacher's Signature:

EXPT. NO | NAME

Page No: 8 | Date: 2012125 | YOUVA

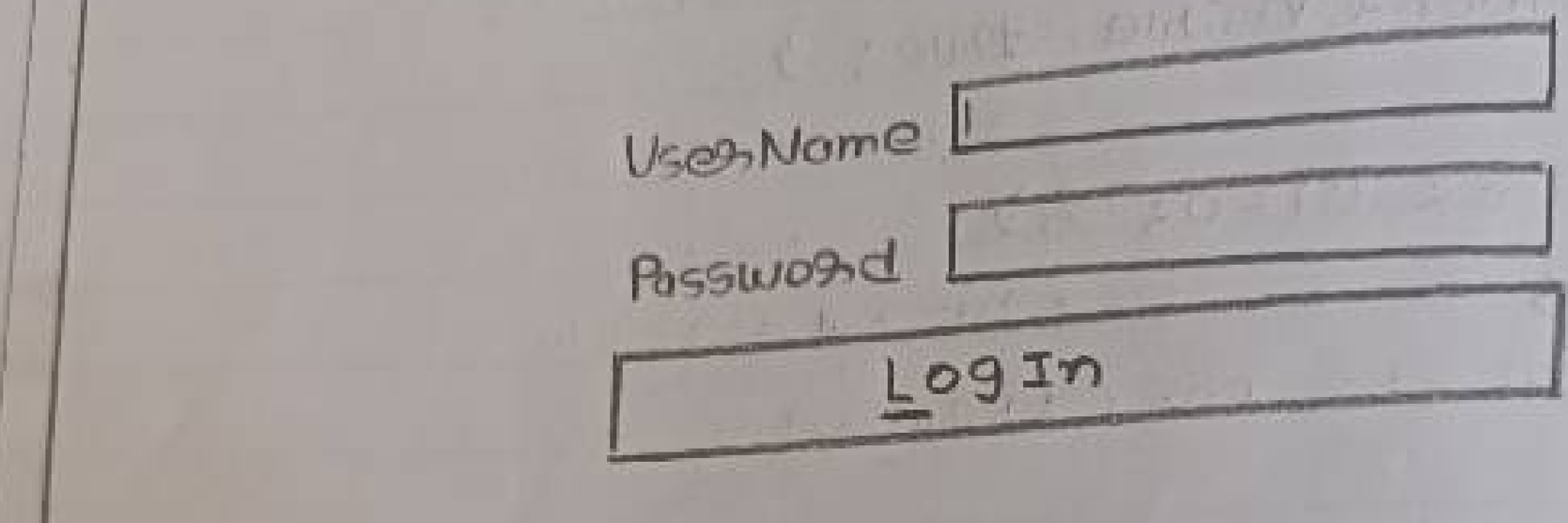
```
OF.ShowFile Dialog ();
if( OF.Filename != "")
{
    richTextBox1.LoadFile(OF.Filename);
    filename = SF.Filename;
}
else
{
    richTextBox1.SaveFile(filename);
}

Private void new_Click(object Sender, EventArgs e)
{
    DialogResult DR= MessageBox.Show("Do You want to Save ?", "Notepad", MessageBoxButtons.YesNo, MessageBox.Icon.Questions);
    if (DR == DialogResult.Yes)
    {
        SaveData();
        ClearData();
    }
    else
    {
        clearData();
    }
}
```

Teacher's Signature:

```
if(currData != PrevData)
{
    richTextBox1.SaveFile(filename);
    clearData();
    currData = String.Empty;
}
else
{
    clearData();
    currData = String.Empty;
}
}

private void SaveAS_clickCobject Sender, EventArgs e)
{
    filename = String.Empty;
    SaveData();
}

private void exit_click (object Sender, EventArgs e)
{
    Application.Exit();
}
```

```
private void fontcolor_click(object sender, eags e)
{
    ColorDialog CD = new ColorDialog();
    CD.ShowDialog;
    richTextBox1.ForeColor = CD.Color;
}

private void fontTool_click(object sender, Event eags e)
{
    FontDialog FD = new FontDialog();
    FD.ShowDialog;
    richTextBox1.Font = FD.Font;
}
}
}
```

Teacher's Signature:



WelCome

Home

EXPT. NO. 6. NAME

Login Page & Home Page

PAGE NO. 13
DATE 25-3-25
YOUVA

```
using System;
using System.Drawing;
using System.Windows.Forms;
using System.Data;
using System.Data.Sql;
using System.Data.SqlClient;

namespace Login&HomePage
{
    public partial class Login page : Form
    {
        public Form1()
        {
            InitializeComponent();
        }

        private void Bthlogin_click(object sender, EventArgs e)
        {
            if(txtunm.Text != "" && txtpwd.Text != "")
            {
                String SelectQuery = " select * from login
                where user name = '" + txtunm.Text + "'
                and password = '" + txtpwd.Text + "';
                SqlConnection Con = new Sqlconnection("
                Data Source = (LocalDB)\\ MSSQLlocalDB ; Attach
                DbFilename = |DataDirectory| \\ DataLogin.Mdf;
                Integrated Security = true");
```

Teacher's Signature:

EXPT. NO. | NAME

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```
SqlDataAdapter DA = new SqlDataAdapter
                    (SelectQuery, Con);
DataTable DT = new DataTable
DA.Fill(DT);
if (DT.Rows.Count == 1)
{
    Homepage H = new Hompage();
    H.Show();
    this.Hide();
}
else
{
    MessageBox.Show("Invalid UserName or
    Password !", "LoginPage",
    MessageBoxButtons.OK, MessageBoxIcon.Warning");
    clear();
}
}
else
{
    MessageBox.Show("Please Enter value in All feields!"
    "LoginPage", MessageBoxButtons.OK, MessageBoxIcon.Warning");
    clear();
}
}

Private void clear(){
    txtunm.Text = txtpwd.Text = String.Empty;
    txtunm.focus(); }
}
}
```

Teacher's Signature:

Username

User Age

User Cause

Insert | Update | Delete

First | Next | Previous | Last

id	Nm	Age	Cause
1	Hitesh	20	BCA
2	Abhishek	21	Bscit
3	Meetrajsinh	20	Bscit
4	Devang	21	Bscit
5	Pasth	20	Bscit

EXPT. NO. 7. NAME Crud & Navigation

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Date 25/3/25

Connection File :- Connection.cs

```
using System;
using System.Data;
using System.Data.SqlClient;

nameSpace Connection Crud&Navigation
{
    class Connection
    {
        public static SqlConnection Con = new SqlConnection("
        Data Source = (localDB)\\MSSQLLocalDB; AttachDbFilename =
        |DataDirectory|\\DataBase.mdf; Integrated Security = true");

public static DataTable Crud(String qtype, String tblnm, String
  Param1, String Param2)
{
    DataTable DT = new DataTable();
    SqlDataAdapter DA;
    if (qtype == "Insert")
    {
String InsertQuery = "Insert into " + tblnm + "
values ('" + Param1 + "')";
DA = new SqlDataAdapter(InsertQuery, Con);
DA.fill(DT);
return DT;
}
```

Teacher's Signature:

EXPT NO | NAME

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```
else if cqtyp == "select")
{
    String selectQuery = "Select * from " + tblnm ;
    DA = new SqlDataAdapter(selectQuery, con);
    DA.Fill(DT);
    return DT;
}
else if (qtyp == "update")
{
    String updateQuery = "update " + tblnm + " set " +
    parm1 + " where id = '" parm2 + "' ";
    DA = new SqlDataAdapter(updateQuery, con);
    DA.Fill(DT);
    return DT;
}
elseif(qtyp == "Delete")
{
    string DeleteQuery = "Delete" + tblnm + " where id=
    '" + parm1 + "' ";
    DA = new SqlDataAdapter(DeleteQuery, con);
    DA.Fill(DT);
    return DT;
}
    return DT;
}
```

Teacher's Signature:

EXPT NO. | NAME

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Crud & Navigatin File :- Crud.cs

```
using System;
using windows. System.windows.forms;
using System.Drawing;
using System.Data;
using System.Data.Sql;
using System.Data.Sqlclient;
{
    namespace Crud&Navigation
    {
        public partical Crud : Form
    {   int Rp=0, Tr=0;
        public Crud(){ Initialize Component(); }

private void loadData()
{
    UserData.DataSource = Connection.Crud
    ("Select", "Crud", "");
    Tr = Connection.Crud("Select", "Crud", "").Rows
    .Count -1;
}

DataTable DT = ("Select", "Crud", "");
```

Teacher's Signature:

EXPT. NO. | NAME

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```
private void clear()
{
    txtUnm.Text = txtage.Text = txtCou.Text = "";
    txtunm.focus();
}

Private void BtnEnable(){
    BtnU.Enabled = true;
    BtnD.Enabled = true;
    BtnI.Enabled = false; }

Private void BtnDisable(){
    BtnU.Enabled = false;
    BtnD.Enabled = false;
    BtnI.Enabled = true; }

private void Navigate(){
    if (Tr >=0)
    {
        txtUnm.Text = DT.Rows[RP][1].ToString();
        txtage.Text = DT.Rows[RP][2].ToString();
        txtCou.Text = DT.Rows[RP][3].ToString();
    }
}
```

Teacher's Signature:

EXPT. NO. | NAME

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```
Private void Crud_Load(object sender, EventArgs e)
{
    load Data();
    if(Connection.Crud("Select", "Course", "").Rows.Count
        >0) {
        CourseBox.DataSource =
        Connection.Crud("Select", "Course", "").Rows[0][1].ToString();
    }
    CourseBox.DisplayMember = "Cou";
    CourseBox.ValueMember = "Cou";
    Clear();
}

Private void BtnI_click(object sender, EventArgs e)
{
    if(txtBnm.Text != "" && txtage.Text != "" && txtCou.Text != "")
    {
        String InsertQuery = txtBnm.Text+"', '"+txtage.Text+"'
        ,'"+txtCou.Text;
        Connection.Crud("Insert", "Crud", InsertQuery, "");
        Clear();
        loadData();
        BtnDisable();
    }
    else
    {
        MessageBox.Show("Fill All fields!", "Crud",
        MessageBoxButtons.ok, MessageBoxIcon.Warning);
        Clear();
    }
}
```

Teacher's Signature:

EXPT NO. | NAME

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```
private void Btnu_clickCobject Senders, EventArgs e) {
    if(txtUnm.Text != "" && txtage.Text != "" && txtCou.Text != "") {
        String P1 = "@Nm='" + txtUnm.Text + "', Age='" + txtage.
        Text + "', Course='" + txtCou.Text + "'";
        String P2 = DT.Rows[RP][0].ToString();
        Connection.Crud("Update", "Crud", P1, P2);
        LoadData();
        clear();
        BtnDisable(); }
    else {
        MessageBox.Show("Fill All fields!", "Crud",
            MessageBoxButtons.OK, MessageBoxIcon.Warning); } }

Private void BtnD_click(Object Senders, EventArgs e) {
    If(txtUnm.Text != "" && txtage.Text != "" && txtCou.Text != "") {
        String P1 = DT.Rows[RP][0].ToString();
        Connection.Crud("Delete", "Crud", "P1", "");
        Loaddata();
        Clear();
        BtnDisable(); }
    else {
        MessageBox.Show("Fill All fields!", "Crud",
        MessageBoxButtons.OK, MessageBoxIcon.Warning); }
```

Teacher's Signature:

EXPT. NO | NAME

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Date 25/3/25
YOUVA

```
Private void BtnF_Click(Object Sender, EventArgs e) {
    if (Tb >= 0) {
        Rp = 0;
        Navigate();
        BtnEnable(); } }

Private void BtnN_Click(Object Sender, EventArgs e) {
    if (Rp < tb) {
        Rp++;
        Navigate();
        BtnEnable(); } }

Private void BtnP_Click(Object Sender, EventArgs e) {
    if (Rp > 0) {
        Rp--;
        Navigate();
        BtnEnable(); } }

Bivate void BtnL_Click(Object Sender, EventArgs e) {
    if (Tb >= 0) {
        Rp = tb;
        Navigate();
        BtnEnable(); }
}
```

Teacher's Signature:

1
2 1
3 2 1
4 3 2 1
5 4 3 2 1

EXPT. NO: 8. NAME: Pisamid

M T W T F S S

Page No: 22

Date: 25/3/25

YOUVA

```
using System;
namespace pisamid
{
class Program
{
    static void main(string[] args)
    {
        for(int i=1; i<=5; i++)
        {
            for(int j=i ; j>=1 ; j--)
            {
                Console.Write(j);
            }
            Console.WriteLine();
        }
    }
}
```

Teacher's Signature:

Demo
Data

EXPT NO 9. NAME Static & Non Static Method

Page No. 23 Date 26/3/25 YOUVA

```
using System;

namespace Static&Non-Static
{
    class Prayram
    {
        public static void Demo()
        {
            Console.WriteLine("Demo");
        }
        Public void Data()
        {
            Console.write("Data");
        }
        Static void main(String[] args)
        {
            Demo(); // Static Method
            Program P = new Program();
            P.Data(); // Non-static Method.
            Console.ReadLine();
        }
    }
}
```

Teacher's Signature

```
Sum of x and y is : 11
Sum of x and y is : 11.9
```

EXPT. NO 10 NAME

Constructor overloading

Page No. 24 Date 26/3/25 YOUVA

```
using System;

namespace Constructoroverloading
{

class Co
{

    Co(int a, int b) {
        int x,y;
        x=a;
        y=b;
        Console.writeline("Sum of x and Y is :" +
                (x+y)); }

    Co(double a, double b) {
        double x,y;
        x=a;
        y=b;
        Console.writeC"Sum of x and y is :"+(x+y); }

Public static void main (String[] args)
{
    Co p = new Co(5,6);
    Co q = new Co(53, 66);
    Console.ReadLine();
}
}
}
```

Num1 = 8
Num2 = -7

Expt. No. 11 NAME operator overloading

Page No. 25 Date 26/3/25 YOUVA

using System;

namespace operatoroverloading
{

Class opov {

int n1, n2;

public opov (int num1, int num2) {

n1 = num1;

n2 = num2; }

public static opov operator - (opov o)
{

o.n1 = -o.num1;

o.n2 = -o.num2;

return o;

}

pubic void pPint () {

Console.WriteLine("Num1=" + n1 + " Num2=" + n2); }

}

class Show {

static void Main(string[] args)

{

opov ov = new opov (-8, 9);

ov = -ov;

ov.Print();

Console.ReadLine();

}

}

Teacher's Signature

40
40

EXPT. NO 12 NAME Ref and out

Page No. 26 Date 3/4/25 YOUVA

```
using System;

namespace Refout
{

class Refout
{

class SY
{

public int outparam(out int a, out int b)
{

a=20;
b=20;
return a+b;
}

Public int refparam(ref int a, ref int b)
{
return a+b;
}
}

Static void main(String s[])
{
int i=20;
int j=20;
SY s = new SY();
```

Teacher's Signature:

NAME

Page No. 26 | YOUVA
Date 1/4/25

```
        Console.Write(S.outParam(out i, out j));
        Console.Write(S.refParam(ref i, ref j));
    } Console.Read();
}

}
```

Hello

EXPT. NO 13. NAME Sealed class

Page No: 27 | Date 2/4/25 | YOUVA

```
using System;

namespace Sealed {
s       Sealed class class1 {
            public void print () {
                Console.WriteLine("Hello"); } }

        class Program {
            Static Void main (String s[]) {
                class1 c = new class1();
                c.print();
                Console.Read(); } }

}
```

Teacher's Signature:

EXPT. NO 14. NAME

M T W T F S S

Page No. 28

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YOUVA

abstract class

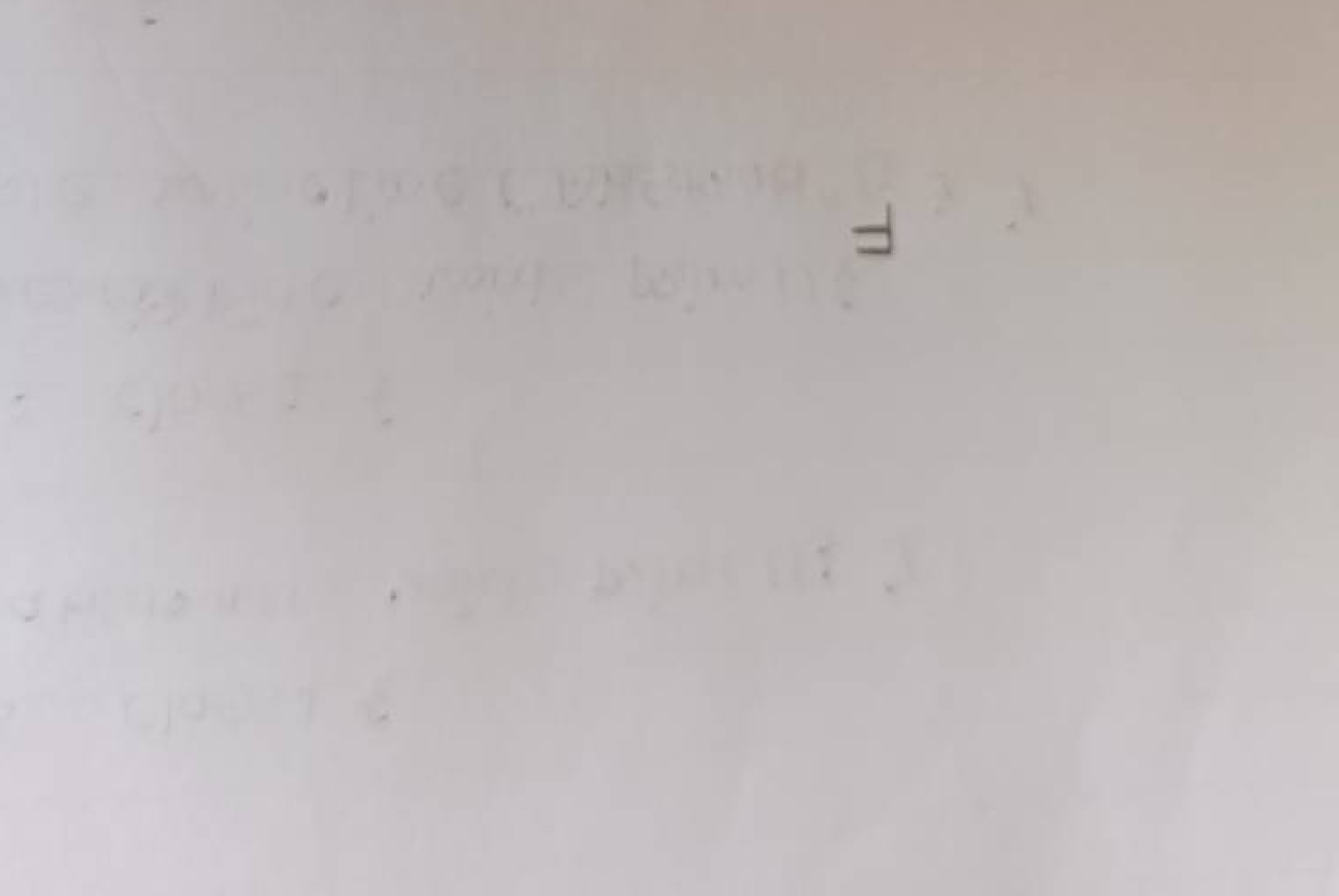
```
using System;

namespace : abstract
{
    abstract class class1 {
    public abstract void print(); }

class class2 : class1 {
    public override void print() {
        Console.WriteLine("Abstract"); } }

class Program {
    static void main (string [] args) {
        class2 c = new class2();
        c.print();
        Console.Read(); } }
}
```

Teacher's Signature



Ex. No. | NAME

15 Interface Inheritence

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```
using System;
namespace : Interface Inheritence
{
    interface result {
            void grade(); }

class II : result
{

        public void grade()
        {
            Console.WriteLine("F");
        }
}

internal class Program
{
    static void main (string s[])
    {
        II i = new II();
        i.grade();
        Console.Read();
    }
}
```

Teacher's Signature

F

EXPT. NO. 16 NAME

Creating and using Properties

Page No. 30 | Date 3/4/25 | YOUVA

```
using System;
namespace : Cup
{
    class Result {
        Public string grade;
        Public string Grade
        {
            get { return grade; }
            set { grade = value; }
        } }

internal class Program
{
    static void main (String s[])
    {
        Result R = new Result();
        R.Grade = "F";
        Console.WriteLine (Result.Grade);
        Console.Read();
    }
}
```

Teacher's Signature:

A

EXPT. NO 5 NAME

Creating and using Indexers

Page No. 31 YOUVA
Date 30/4/25

```
using System;
namespace : CUI
{
        Class Result
        {
            public string[] grade = new string[5];
            public string this [int i]
            {
                get { return grade[i]; }
                set { grade[i] = value; }
            }
        }

Internal class Program
{
        Static unsafe void Main (string S[])
        {
            Result R = new Result();
            R[0] = "A";
            Console.WriteLine(R[0]);
        }
}
```

EXPT. NO: 16 NAME

Event Delegats

Page No. 32 Date 3/4/25 YOUVA

```
using System;
namespace : EventDelegets
{   internal class Program{
    public delegate void addnumcint a, int b);
    // public delegate void Subnumcint a, int b);

    Public void sumcint a, int b){
                Console.WriteLine(a+b); }

    Static void main(string s[])
    {
    Program P = new Program();
    addnum del1 = new addnumCobj, sum);
    del1(100, 50);
    Console.Readl();
    }
}
```