Importanat Defination :

1:) What is .Net FrameWork ?

Ans: The .Net FrameWork defined two very importanat entity

1) Common language Runtime(CLR) this is the System that execute your program
2) Second one is the .Net Class library Such as I/O Class or Other.

2:) What is CLR ?

Ans: The CLR Stand for Common language Runtime that translate the inter mediate code into executable code when program run. When .Net program is execute the CLR actives the JIT (Just in time) Compiler convert MSIL into runtime code.

3:) What is MSIL ?

Ans: MSIL (MecroSoft Intermediate Language). When you Compile a C# program the output of the compiler is not executable code instead it is a file that contain special type of Pesudocode called MSIL. MSIL defined a set of portable instruction that are independent of any specific cup. MSIL define a protable assembly language. MSIL is similar in concept of **JAVA** bytecode but not same set of instructoin that can be efficiently convert into machine code.

4:) What is Responsibilities of CLR in .Net ?

Ans: CLR is form of Common Language Runtime Which is heart of the .Net FrameWork Which runs the code and provides services that makes the development Esair. Similarly .Net has CLR following responsibilities

1) Garbage Collection
2) code access security
3) code verification
4) IL (Intermediate language)

5:) What is the Polymarphism and Static and Dynamic Polymarphism ?

Ans: Polymarphism has two part poly and marphism, poly mean meany and marphism mean from the polymarphism can be used in two way Satic and Dynamic.

Static Polymarphism

1) Staitc polymarphism is also called the comiler time polymarphism
2) it is implement through overloading
3) it execute at the complier time since the complier know which method to be execute.
4) Depend on the parameter and their data type

Dynamic Polymarphism

1) dynamic polymarphism is also called runtime polymarphism
2) it is implemented through method overriding or virtual
3) it execute at runtime since the complier does not know the method to be execute.

6:) Benefits of OOP ?

Ans: Their are many benefits of oop but some are their as.

1) More data Security
2) More reuseablity
3) fixiblity
4) Abstraction is more
5) Encapsulation and polymarphism

7:) What is static variable ?

Ans: A static variable that is declare as static called static variable. It can not be local whose life time across the entire runtime of the program

8:) What is diff b/w the Interface and Abstractoin ?

Interface

1) Interface supports Multiple inheritance
2) Interface does not contain data members
3) interface does not cantain constructor
4) member of function are define but not used able in inter face or it can be static.

Abstraction

1) abstraction class does not support multiple inheritance

2) abstraction contain data member and constructure
3) member of abstraction class can be static
4) the method in abstraction class can be define with astract keyword

9:) What is diff b/w Function and Method ?

Ans: The diff can be define as:

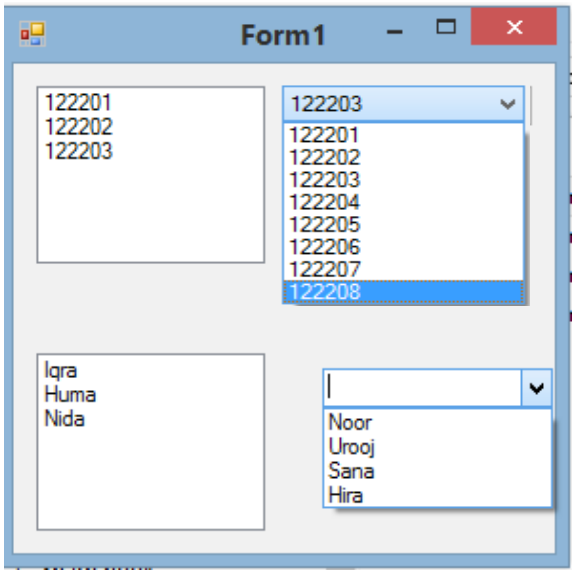
Function

Function do not have any refernce variable. It does not have access controlling.
Function applied in both strucre or member of object oriented language.

Method

Method define the behaver of the class. Method are called by refference variable.
It has access controlling method should be declare and define in a class. Method applied only in OOP like C# , java and other.....

(0)




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

namespace WindowsFormsApplication9
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }

        private void RollNoComboBox_SelectedIndexChanged(object sender, EventArgs e)
        {
            RollNoListBox.Items.Add(RollNoComboBox.Text);
        }

        private void NameComboBox_SelectedIndexChanged(object sender, EventArgs e)
        {
            NameListBox.Items.Add(NameComboBox.Text);
            NameComboBox.Items.RemoveAt(NameComboBox.SelectedIndex);
        }
    }
}
```

(1)


```
using System;
using System.Windows.Forms;
namespace AddFourButton
{
    public partial class Form1 : Form
    {
        public int add, sub, mul, div;
        public string result;
        public Form1()
        {
            InitializeComponent();
        }

        //
        // method for get the first value
        public int firstValue() {

            return Convert.ToInt32(firstInput.Text);

        }
        //
        // method for get the second value
        public int secondValue() {

            return Convert.ToInt32(secondInput.Text);
        }

        private void Add_Click(object sender, EventArgs e)
        {
            add = firstValue() + secondValue();
            // put into the result
            showResult.Text = add.ToString();
        }

        private void Sub_Click(object sender, EventArgs e)
        {
            sub = firstValue() - secondValue();
            // put into the result show
            showResult.Text = sub.ToString();
        }

        private void Multi_Click(object sender, EventArgs e)
        {
            mul = firstValue() * secondValue();
            // put into the result show
            showResult.Text = mul.ToString();
        }
```

```
        private void Div_Click(object sender, EventArgs e)
        {
            div = firstValue() / secondValue();
            // show the reult
            showResult.Text = div.ToString();
        }


    }
}
```

---

(2)


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

namespace assingment1forwindow
{
    public partial class Form1 : Form
        {
        // first made the important list
        public string[] list = {"Timer","ToolStrip","ToolStripContainer",
                                "ToolTip","TrackBar","TreeView","VScrollBar",
                                "Pointer"};
        public Form1()
        {
            InitializeComponent();
            AddDeta();
        }
        //
        // method for adding the items into the list
        public void AddDeta() {
            //
            // add to the list_box one and into the combo box
            foreach (string item in list)
            {
                ToolBox1.Items.Add(item);

            }
        }

        private void ToolBox1_SelectedIndexChanged(object sender, EventArgs e)
        {
            // used the same process
            foreach (string item in list) {
                // add the item
```

```
                ToolBox2.Items.Add(item);
            }
            // remove all the item
            ToolBox1.Items.Clear();
        }

    }
}
```

---

(3)

```
using System;

namespace ConsoleApplication2
{
    class Program
    {
        static void Main(string[] args)
        {
            int[] list = { 25,45,84,25};
            //
            int[] list1 = new int[4];

            int j = 0;

            for (int i = list.Length - 1; i >=0; i--)
            {
                //
                list1[j] = list[i];
                Console.Write(list1[j] + " ");
                j++;
            }
            Console.Read();
        }
    }
}
```

---

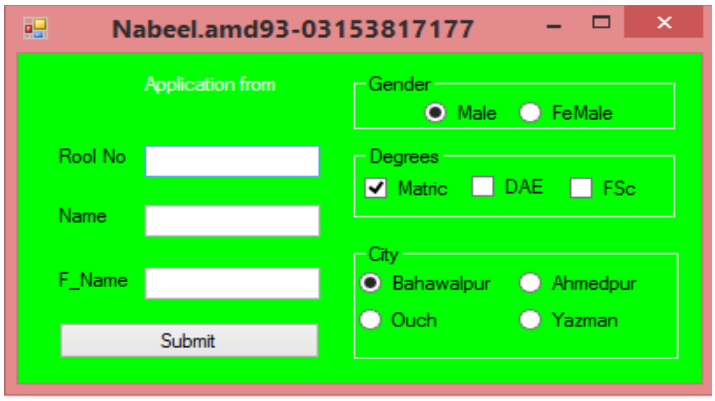
(4)

```
using System;

namespace ConsoleApplication9
{
    class Class1
    {
        int var;
        // this is the constructor
        public Class1(int value) {
            //
            this.var = value;
        }
        //
        public void fact() {
            //
            int fact = 1;
            for (int i = 1; i <= var; i++) {
                fact *= i;
            }
            Console.WriteLine("The fact of the " + var + " is " + fact);
        }
    }
}

using System;
```

```
namespace ConsoleApplication9
{
    class Program
    {
        static void Main(string[] args)
        {
            new Class1(4).fact();
            //
            new Class1(5).fact();
            //
            Console.Read();
        }
    }
}
```

---

(5)



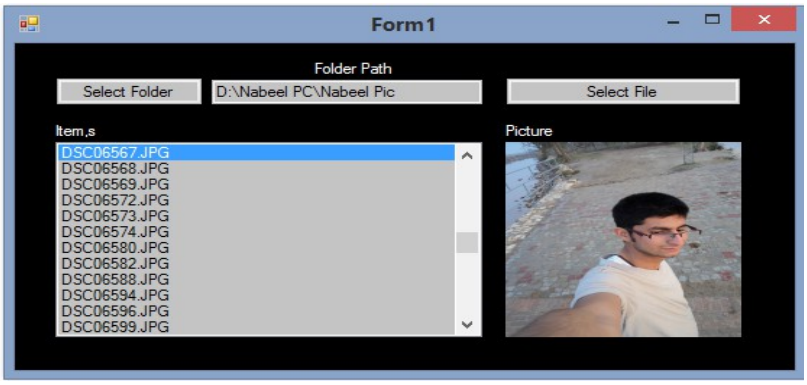

```
using System;
using System.Windows.Forms;

namespace WindowsFormsApplication2
{
    public partial class Form1 : Form
    {
        // var for get the degrees
        private string Degrees;

        public Form1()
        {
            InitializeComponent();
        }
        // get the rool no of the student
        public int getRoolNo() {
            // convert to int_form
            return Convert.ToInt32(rollNo.Text);
        }
        // get the frist_name of the student
        public string getFirst_Name() {
            //
            return FirstName.Text;
        }
        // get the Father_name of the student
```

```
public string getFather_Name() {
    //
    return FatherName.Text;
}
// get the Gender of the student
public string getGender() {
    // checked the condition for male or female
    if(Male.Checked){
        return Male.Text;
    }else{
        return FeMale.Text;
     }
}
// get the Degrees of the student
public string getDegrees() {
    // checked the condition for Degrees of student
    if(Matric.Checked){
        Degrees += Matric.Text;
    }
    //
    if(DAE.Checked){
        Degrees += ","+DAE.Text+",";
    }
    //
    if(FSC.Checked){
        Degrees += FSC.Text;
    }
    // return the value
    return Degrees;
}
// get the city of Student
public string getCity()
{
    // checked the condition for student city
    if(Bahawalpur.Checked){
        return Bahawalpur.Text;
    }else if(Ahmedpur.Checked){
        return Ahmedpur.Text;
    }else if(Ouch.Checked){
        return Ouch.Text;
    }else{
        return Yazman.Text;
    }
}

private void button1_Click(object sender, EventArgs e)
{
    // show info of the student
    MessageBox.Show("Rool_No ::"+getRoolNo() + "\n" +
                    "Name ::"+getFirst_Name() + "\n"+
                    "Father_Name ::" + getFather_Name()+"\n"
                    +"Gender ::"+getGender()+"\n"
                    +"Degrees ::"+getDegrees()+"\n"
                    +"City ::"+getCity());
    //
    // do null all the value
    ClearData();

}
// method for clear the value of the user info
```

```
        public void ClearData() {
            //
            rollNo.Text = null;
            FatherName.Text = null;
            FirstName.Text = null;
            Degrees = null;
        }
    }
}
```

---

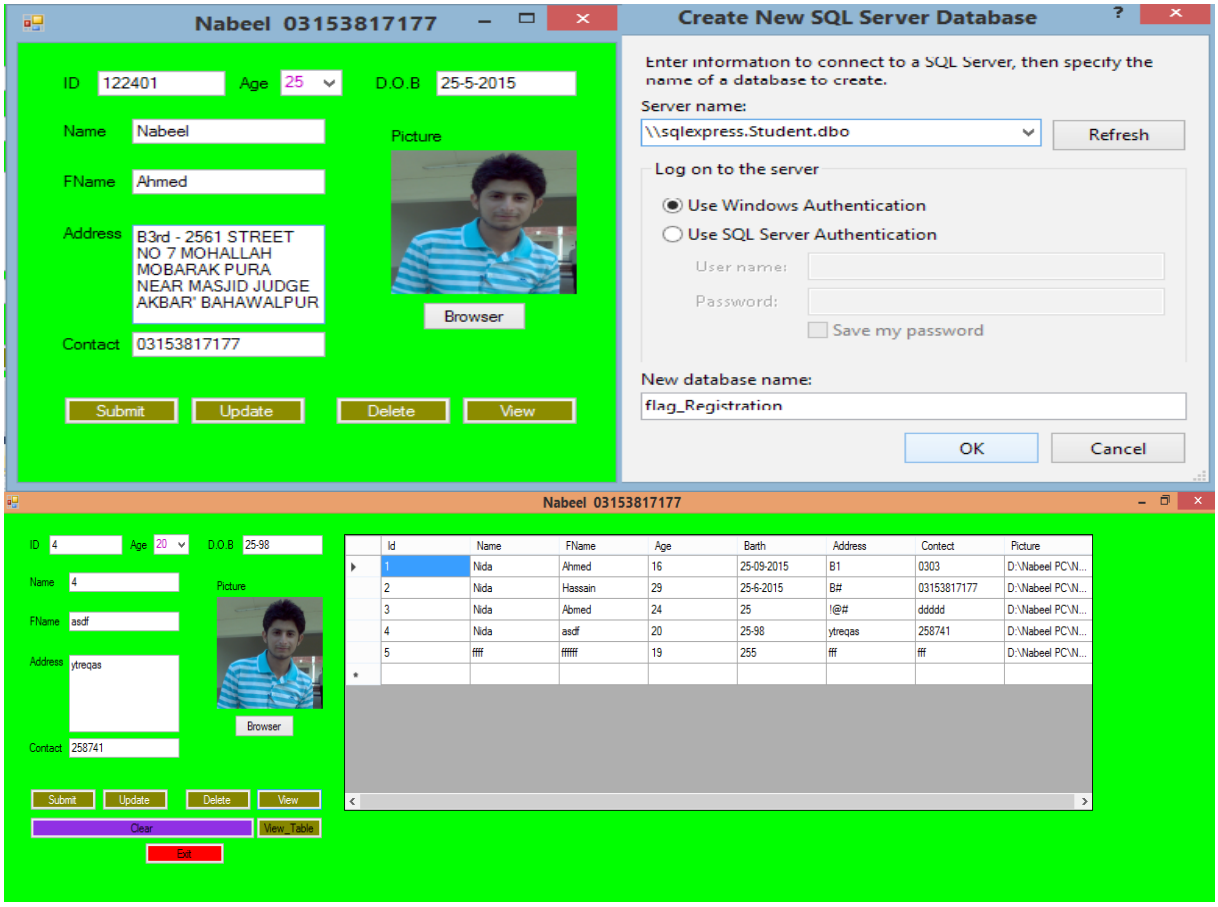
(6)




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

namespace WindowsFormsApplication3
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }
        string path;
        private void Folder_Select_Click(object sender, EventArgs e)
        {

            DialogResult dislogResult = this.folderBrowserDialog1.ShowDialog();
            //
            if (dislogResult == DialogResult.OK) {
                //
                   path  = folderBrowserDialog1.SelectedPath.ToString();
                   textBox1.Text = path;

                 // loop used for get the directory
                foreach (string var in Directory.GetFiles(path)) {
                    // used the next loop for serch
                    listBox_picture.Items.Add(var.Substring(var.LastIndexOf('\\')+1));
                }
                //

            }

        }
        //
        private void listBox_picture_SelectedIndexChanged(object sender, EventArgs e)
        {
```

```
            pictureBox1.ImageLocation = path + '\\' + listBox_picture.SelectedItem.ToString();

        }


        private void File_Select_Click(object sender, EventArgs e)
        {
            DialogResult dialogResult = this.openFileDialog1.ShowDialog();
            if (dialogResult == DialogResult.OK) {
                //
                this.pictureBox1.Load(this.openFileDialog1.FileName);
            }
        }
    }
}
```

DataBase ConCept In C#




```
using System;
// add the liabrary
using System.Data.SqlClient;
using System.Windows.Forms;


namespace Student_InFo
{

    public partial class Form1 : Form
    {
        // instance var of the form
```

```
private DialogResult s_pic;
private SqlConnection connection;
private SqlCommand command;
private SqlDataReader read_data;
private SqlDataAdapter dataAdapter;
private System.Data.DataTable dataTable;
private String query;
private String pic_Path
private const string const_Pic = @"C:\Users\Nabeel\Documents\VisualStudio2010\Projects
         \Student_InFo\Student_InFo\Untitled22.png";


// Init Form
public Form1()
{
    InitializeComponent();
    // get the database path
    connection = new SqlConnection(@"Data Source=.\sqlexpress;
    InitialCatalog=Student_database;Integrated Security=True;Pooling=False");
    // importanat point
    pictureBox1.Load(const_Pic);
    showTable();
    query = "select isnull(max(Id+1),0) as Id from Information";
    // send this query to the command
    command = getCommand(query);
    // cammand execute
    read_data = command.ExecuteReader();
    if (read_data.Read()) {
        // add the value of id into the text
        ID_textBox.Text = read_data["Id"].ToString();
    }
    closeConnection();
}
// open connection and set the sql_Cammand
private SqlCommand getCommand(String query)
{
    // open the connection
    connection.Open();
    return new SqlCommand(query, connection);
}
// close the connection
public void closeConnection() {
    //
    connection.Close();
}
// used to get the picture
private void Picture_button_Click(object sender, EventArgs e)
{
    // it show the list of file on the desktop
    s_pic = this.openFileDialog1.ShowDialog();
    if (s_pic == DialogResult.OK)
    {
        // pic_path
        pic_Path = this.openFileDialog1.FileName;
        // Load the pic on the picture_Box
        pictureBox1.Load(pic_Path);
    }
    else
    {
        // if the Picture not Select this will show the message
```

```
            MessageBox.Show("Picture not Select");
        }
    }
    // New Insertion new query
    int Id_plus = 1;
    private void Submit_Click(object sender, EventArgs e)
    {
        query = "Insert into Information(Id,Name,FName,Age,Barth,Address,Contect,Picture)
        values('"+ID_textBox.Text+"','"+Name_textBox.Text+"','"+FName_textBox.Text+"','"
        +Age_comboBox.Text+"','"+DOB_textBox.Text+"','"+Address_textBox.Text+"',
        '"+Contact_textBox.Text+"','"+pic_Path+"')";
        command = getCommand(query);
        if (command.ExecuteNonQuery() > 0) {
            showTable();
            // show message
            MessageBox.Show("The result is store");
            // know null the reuslt of the text pox
            Id_plus += Convert.ToInt16(ID_textBox.Text);


        }
        closeConnection();
        ID_textBox.Text = Id_plus.ToString();
        Id_plus = 1;
    }
    // Update_Query
    private void Update_Click(object sender, EventArgs e)
    {
             query = "update Information set Name = '" + Name_textBox.Text + "',FName =
     '"+FName_textBox.Text+"',Age ='"+Age_comboBox.Text+"',Barth='"+DOB_textBox.Text+
    "',Address = '"+Address_textBox.Text+"',Contect = '"+Contact_textBox.Text+
      "', Picture = '" +pic_Path+ "' where Id =" + ID_textBox.Text;
        command = getCommand(query);
        if (command.ExecuteNonQuery() > 0)
        {
            // show message
            showTable();
            MessageBox.Show("The result is Update");
        }
        closeConnection();
    }
    // Delete_Query
    private void Delete_Click(object sender, EventArgs e)
    {
        query = "delete from Information where Id =" + ID_textBox.Text;
        command = getCommand(query);
        if (command.ExecuteNonQuery() > 0)
        {
            showTable();
            MessageBox.Show("Record is delete");
        }
        closeConnection();

    }
    // View Result Query
    private void View_Click(object sender, EventArgs e)
    {

        // get the All information about the Student
         query = "select *from Information where Id ="+ID_textBox.Text;
```

```
        command = getCommand(query);
        read_data = command.ExecuteReader();
        if (read_data.Read())
        {
            //Id,Name,FName,Age,Barth,Address,Contect,Picture
            Name_textBox.Text = read_data["Name"].ToString();
            FName_textBox.Text = read_data["FName"].ToString();
            Age_comboBox.Text = read_data["Age"].ToString();
            DOB_textBox.Text = read_data["Barth"].ToString();
            Address_textBox.Text = read_data["Address"].ToString();
            Contact_textBox.Text = read_data["Contect"].ToString();
            pictureBox1.Load(read_data["Picture"].ToString());
        }
        closeConnection();
    }
    // Clerar_All box
    private void Clear_Click(object sender, EventArgs e)
    {
        Name_textBox.Text = "";
        FName_textBox.Text = "";
        Age_comboBox.Text = "";
        DOB_textBox.Text = "";
        Address_textBox.Text = "";
        Contact_textBox.Text = "";
        pictureBox1.Load(const_Pic);
    }
    // Exit the form
    private void Exit_Click(object sender, EventArgs e)
    {
        // end the connection and Close the form
        closeConnection();
        Application.Exit();
        //this.Close();
    }


    private void View_Table_Click(object sender, EventArgs e)
    {
        // method for show the data into the table
        showTable();
    }
    // method of show_Table_Result
    private void showTable(){

        query = "Select * from Information";
        dataAdapter = new SqlDataAdapter(query, connection);
        dataTable  = new System.Data.DataTable();
        dataAdapter.Fill(dataTable);
        dataGridView1.DataSource = dataTable;
    }

    private void dataGridView1_CellContentClick(object sender, DataGridViewCellEventArgs e)
    {
        DataGridViewRow row = this.dataGridView1.Rows[e.RowIndex];
        ID_textBox.Text = row.Cells["id"].Value.ToString();
        Name_textBox.Text = row.Cells["Name"].Value.ToString();
        FName_textBox.Text = row.Cells["FName"].Value.ToString();
        Age_comboBox.Text = row.Cells["Age"].Value.ToString();
        DOB_textBox.Text = row.Cells["Barth"].Value.ToString();
        Address_textBox.Text = row.Cells["Address"].Value.ToString();
```

```
            Contact_textBox.Text = row.Cells["Contect"].Value.ToString();
            pictureBox1.Load(row.Cells["Picture"].Value.ToString());
        }

    }

}
```
