



**PAF-Karachi Institute of Economics and
Technology College of Computing and Information
Sciences
Object Oriented Programming**

Assignment - 2

Name: Shahmeer khan.

Class ID: 106278.

Student ID: 12113.

Instruction:

- ▶ Create a **word document** which contains each question's solution with screen shot of output.
- ▶ Must attempt all questions by yourself, in case of **copied** solutions your assignment will marked **ZERO**.
- ▶ Submit softcopy on **Google classroom** before deadline.

**Save your word document with name: [Student Name Student ID]
Submission Deadline: 18/04/2021**

Question – 1 [WINDOWS FORM BASED]

[5 marks]

Create a quiz application for two types of student "junior students / senior students".

For both you have to create two levels of quiz question. [High/medium]. Each level contains 5 quiz question and each question contains 3 answers options it's very simple, now run your mind to create GUI and:

Apply OOP concepts:

- 1: classes
- 2: Constructor overloading
- 3: static keyword
- 4: methods

Use an appropriate GUI controls to create a best design from your side.

Show the correct answers and wrong answers at the end of the quiz program.

Inputted Code:

Login Form Code:

```
using System;  
using System.Collections.Generic;  
using System.ComponentModel;  
using System.Data;  
using System.Drawing;  
using System.Linq;  
using System.Text;  
using System.Threading.Tasks;
```

```

using System.Windows.Forms;

namespace _12113_Shahmeer_s_OOP_LAB_ASSIGNMENT_2
{
    public partial class Login_Main : Form
    {
        public Login_Main()
        {
            InitializeComponent();
        }

        private void label1_Click(object sender, EventArgs e)
        {
        }

        private void Cancel_Button_Click(object sender, EventArgs e)
        {
            Close();
        }

        private void Login_Button_Click(object sender, EventArgs e)
        {
            DAO Login_work = new DAO();
            Login_work.Login(Name_Textbox.Text, TypeCombo.Text, ID_textbox.Text,
Password_Textbox.Text);
        }
    }
}

```

Form1.cs Form1.cs [Design] ↩ ✕

The design view of the Login form shows a window titled "Login" with a standard Windows title bar. The form has a light gray background. At the top, the word "LOGIN" is displayed in a large, bold, black serif font. Below it, the instruction "Login With Your Respective Status and ID, Password..." is written in a smaller, italicized black serif font. The form contains four input fields: a text box for "Name:", a dropdown menu for "Type:", a text box for "ID:", and a text box for "Password:". At the bottom, there are two buttons: "LOGIN" on the left and "CANCEL" on the right.

Form1.cs DAO.cs Form1.cs [Design]

12113 Shahmeer's OOP LAB ASSIGNMENT 2 12113_Shahmeer_s_OOP_LAB_ASSIGNMENT_2.Login_Main Login_Main()

```

10  namespace _12113_Shahmeer_s_OOP_LAB_ASSIGNMENT_2
11  {
12      5 references
13      public partial class Login_Main : Form
14      {
15          2 references
16          public Login_Main()
17          {
18              InitializeComponent();
19          }
20          1 reference
21          private void label1_Click(object sender, EventArgs e)
22          {
23          }
24          1 reference
25          private void Cancel_Button_Click(object sender, EventArgs e)
26          {
27              Close();
28          }
29          1 reference
30          private void Login_Button_Click(object sender, EventArgs e)
31          {
32              DAO Login_work = new DAO();
33              Login_work.Login(Name_Textbox.Text, TypeCombo.Text, ID_textbox.Text, Password_Textbox.Text);
34          }
35      }
36  }
37  
```

90 % No issues found Ln: 1 Ch: 1 SPC CRLF

**The functioning of this form will be according to a database data table and the database's functioning is done in the DAO class.*

12113 Shahmeer's OOP LAB ASSIGNMENT 2 Database : Database (Access 2007) - Microsoft Access

Table Tools

Home Create External Data Database Tools Datasheet

View Paste Copy Cut Format Painter Font Rich Text Records Sort & Filter Find

Security Warning Certain content in the database has been disabled Options...

All Tables LoginData

Table	ID	LoginID	Password	Type	Add New Field
LoginData : Table		JS12458	3216549	Junior-Student	
Quiz2_Scores : Table		2 SS85421	9876541	Senior-Student	
LoginStdAtt : Table					
Quiz1_Scores : Table					

DAO Class Code:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;
using System.Data;
using System.Data.OleDb;

namespace _12113_Shahmeer_s_OOP_LAB_ASSIGNMENT_2
{
    class DAO
    {
        private string Connection = @"Provider=Microsoft.ACE.OLEDB.12.0;Data Source=D:\Kiet 2nd Semester\OOP LAB\OOP LAB ASSIGNMENT 2\12113 Shahmeer's OOP LAB ASSIGNMENT 2 Database.accdb";
        private DataTable LoginData = new DataTable();
        private static string name, type, type_id;
        public int Q1q1 = 0, Q1q2 = 0, Q1q3 = 0, Q1q4 = 0, Q1q5 = 0;
        public int Q1;
        public int Q2q1 = 0, Q2q2 = 0, Q2q3 = 0, Q2q4 = 0, Q2q5 = 0;
        public int Q2;
        public void Login(string Name, string Type, string ID, string Password)//polymorphism type
        of constructor overloading
        {
            string Query = "Select * From LoginData";
            OleDbConnection CONNECTION = new OleDbConnection(Connection);
            CONNECTION.Open();
            OleDbCommand CMD = new OleDbCommand(Query, CONNECTION);
            OleDbDataAdapter DataAdapter = new OleDbDataAdapter(CMD);
            DataAdapter.Fill(LoginData);
            if (ID == LoginData.Rows[0]["LoginID"].ToString() && Password ==
LoginData.Rows[0]["Password"].ToString() && Type == LoginData.Rows[0]["Type"].ToString())
            {
                Junior_Quiz_1 JQ1 = new Junior_Quiz_1();
                JQ1.Show();
                CONNECTION.Close();
                StsLoginAttState(Name, Type, ID);
            }
            else if (ID == LoginData.Rows[1]["LoginID"].ToString() && Password ==
LoginData.Rows[1]["Password"].ToString() && Type == LoginData.Rows[1]["Type"].ToString())
```

```

        {
            Senior_Quiz_1 SQ1 = new Senior_Quiz_1();
            SQ1.Show();
            CONNECTION.Close();
            StsLoginAttState(Name, Type, ID);
        }
        else
        {
            MessageBox.Show("Invalid ID or/and Password");
            CONNECTION.Close();
        }
    }
    public void StsLoginAttState(string Name, string Type, string ID)
    {
        name = Name;//to save the textboxes values in static strings to be used for another
work of data insertion
        type = Type;//to save the textboxes values in static strings to be used for another
work of data insertion
        type_id = ID;//to save the textboxes values in static strings to be used for another
work of data insertion
        //This method will work as attendance marker like it will save the data through name,
ID textbox and comboxbox into the data base
        //whichever student will try to login for the quiz automatically
        string query = "Insert into LoginStdAtt([Name],[Type],[Type_ID],[Attendance]) values
('" + Name + "',''" + Type + "',''" + ID + "',''" + "P" + "','')";
        CONNECTION(query);
    }
    public void CONNECTION(string QUERY)
    {
        OleDbConnection CON = new OleDbConnection(Connection);
        OleDbCommand cmd = new OleDbCommand(QUERY, CON);
        CON.Open();
        int a = cmd.ExecuteNonQuery();
        if (a <= 0)
        {
            MessageBox.Show("Students Data Insertion Failed!!!");
        }
        CON.Close();
    }
    public int Quiz1()
    {
        Q1 = Q1q1 + Q1q2 + Q1q3 + Q1q4 + Q1q5;
        return Q1;
    }
    public int Quiz2()
    {
        Q2 = Q2q1 + Q2q2 + Q2q3 + Q2q4 + Q2q5;
        return Q2;
    }
    public void Quiz1_Marks_Insertion()
    {
        int Q1 = Quiz1();
        string QUERY = "Insert into Quiz1_Scores([Name],[Type],[Type_ID],[Scores]) values ('"
+ name + "',''" + type + "',''" + type_id + "',''" + Q1.ToString() + "','')";
        CONNECTION(QUERY);
    }
    public void Quiz2_Marks_Insertion()
    {
        int Q2 = Quiz2();

```

```

        string QUERY = "Insert into Quiz2_Scores([Name],[Type],[Type_ID],[Scores]) values ('"
+ name + "', '" + type + "', '" + type_id + "', '" + Q2.ToString() + "')";
        CONNECTION(QUERY);
    }
}
}

```

```

DAO.cs Form1.cs [Design]
12113 Shahmeer's OOP LAB ASSIGNMENT 2 12113_Shahmeer_s_OOP_LAB_ASSIGNMENT_2.DAO Quiz2()
6 using System.Windows.Forms;
7 using System.Data;
8 using System.Data.OleDb;
9
10 namespace _12113_Shahmeer_s_OOP_LAB_ASSIGNMENT_2
11 {
12     10 references
13     class DAO
14     {
15         private string Connection = @"Provider=Microsoft.ACE.OLEDB.12.0;Data Source=D:\Kiet 2nd Semester\OOP LAB\OOP LAB ASSIGNMENT 2\12113 Shahmeer's OOP LAB ASSIGNMENT 2 DAO";
16         private DataTable LoginData = new DataTable();
17         private static string name, type, type_id;
18         public int Q1q1 = 0, Q1q2 = 0, Q1q3 = 0, Q1q4 = 0, Q1q5 = 0;
19         public int Q1;
20         public int Q2q1 = 0, Q2q2 = 0, Q2q3 = 0, Q2q4 = 0, Q2q5 = 0;
21         public int Q2;
22         1 reference
23         public void Login(string Name, string Type, string ID, string Password)//polymorphism type of constructor overloading
24         {
25             string Query = "Select * From LoginData";
26             OleDbConnection CONNECTION = new OleDbConnection(Connection);
27             CONNECTION.Open();
28             OleDbCommand CMD = new OleDbCommand(Query, CONNECTION);
29             OleDbDataAdapter DataAdapter = new OleDbDataAdapter(CMD);
30             DataAdapter.Fill(LoginData);
31             if (ID == LoginData.Rows[0]["LoginID"].ToString() && Password == LoginData.Rows[0]["Password"].ToString() && Type == LoginData.Rows[0]["Type"].ToString())
32             {
33                 Junior_Quiz_1 JQ1 = new Junior_Quiz_1();
34                 JQ1.Show();
35                 CONNECTION.Close();
36                 StsLoginAttState(Name, Type, ID);
37             }
38         }
39     }
40 }
90 % No issues found Ln: 80 Ch: 10 SPC CRLF

```

```

DAO.cs Form1.cs [Design]
12113 Shahmeer's OOP LAB ASSIGNMENT 2 12113_Shahmeer_s_OOP_LAB_ASSIGNMENT_2.DAO Quiz2()
28 DataAdapter.Fill(LoginData);
29 if (ID == LoginData.Rows[0]["LoginID"].ToString() && Password == LoginData.Rows[0]["Password"].ToString() && Type == LoginData.Rows[0]["Type"].ToString())
30 {
31     Junior_Quiz_1 JQ1 = new Junior_Quiz_1();
32     JQ1.Show();
33     CONNECTION.Close();
34     StsLoginAttState(Name, Type, ID);
35 }
36 else if (ID == LoginData.Rows[1]["LoginID"].ToString() && Password == LoginData.Rows[1]["Password"].ToString() && Type == LoginData.Rows[1]["Type"].ToString())
37 {
38     Senior_Quiz_1 SQ1 = new Senior_Quiz_1();
39     SQ1.Show();
40     CONNECTION.Close();
41     StsLoginAttState(Name, Type, ID);
42 }
43 else
44 {
45     MessageBox.Show("Invalid ID or/and Password");
46     CONNECTION.Close();
47 }
48 }
49 2 references
50 public void StsLoginAttState(string Name, string Type, string ID)
51 {
52     name = Name;//to save the textboxes values in static strings to be used for another work of data insertion
53     type = Type;//to save the textboxes values in static strings to be used for another work of data insertion
54     type_id = ID;//to save the textboxes values in static strings to be used for another work of data insertion
55     //This method will work as attendance marker like it will save the data through name, ID textbox and combobox into the data base
56     //whichever student will try to login for the quiz automatically
57     string query = "Insert into LoginStdAtt([Name],[Type],[Type_ID],[Attendance]) values ('" + Name + "', '" + Type + "', '" + ID + "', '" + "P" + "')";
58     CONNECTION(query);
59 }
90 % No issues found Ln: 80 Ch: 10 SPC CRLF

```

```

DAO.cs  Form1.cs [Design]
12113 Shahmeer's OOP LAB ASSIGNMENT 2  _12113_Shahmeer_s_OOP_LAB_ASSIGNMENT_2.DAO  Quiz2()
51      name = Name; //to save the textboxes values in static strings to be used for another work of data insertion
52      type = Type; //to save the textboxes values in static strings to be used for another work of data insertion
53      type_id = ID; //to save the textboxes values in static strings to be used for another work of data insertion
54      //This method will work as attendance marker like it will save the data through name, ID textbox and combobox into the data base
55      //whichever student will try to login for the quiz automatically
56      string query = "Insert into LoginStdAtt([Name],[Type],[Type_ID],[Attendance]) values ('" + Name + "', '" + Type + "', '" + ID + "', '" + "P" + "')";
57      CONNECTION(query);
58  }
59  3 references
60  public void CONNECTION(string QUERY)
61  {
62      OleDbConnection CON = new OleDbConnection(Connection);
63      OleDbCommand cmd = new OleDbCommand(QUERY, CON);
64      CON.Open();
65      int a = cmd.ExecuteNonQuery();
66      if (a <= 0)
67      {
68          MessageBox.Show("Students Data Insertion Failed!!!");
69      }
70      CON.Close();
71  }
72  3 references
73  public int Quiz1()
74  {
75      Q1 = Q1q1 + Q1q2 + Q1q3 + Q1q4 + Q1q5;
76      return Q1;
77  }
78  3 references
79  public int Quiz2()
80  {
81      Q2 = Q2q1 + Q2q2 + Q2q3 + Q2q4 + Q2q5;
82      return Q2;
83  }
84  2 references
85  public void Quiz1_Marks_Insertion()
86  {
87      int Q1 = Quiz1();
88      string QUERY = "Insert into Quiz1_Scores([Name],[Type],[Type_ID],[Scores]) values ('" + name + "', '" + type + "', '" + type_id + "', '" + Q1.ToString() + "')";
89      CONNECTION(QUERY);
90  }
91  2 references
92  public void Quiz2_Marks_Insertion()
93  {
94      int Q2 = Quiz2();
95      string QUERY = "Insert into Quiz2_Scores([Name],[Type],[Type_ID],[Scores]) values ('" + name + "', '" + type + "', '" + type_id + "', '" + Q2.ToString() + "')";
96      CONNECTION(QUERY);
97  }
98  }
99  }

```

Junior Quiz 1 Form:

```

using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;

```

```

namespace _12113_Shahmeer_s_OOP_LAB_ASSIGNMENT_2
{
    public partial class Junior_Quiz_1 : Form
    {
        public Junior_Quiz_1()
        {
            InitializeComponent();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            Quiz1_Checker();
            Junior_Quiz_2 JQ2 = new Junior_Quiz_2();
            JQ2.Show();
        }
        Login_Main Lm = new Login_Main();
        public void Quiz1_Checker()
        {
            DAO JQW1 = new DAO();
            if (F5.Checked == true)
            {
                JQW1.Q1q1 += 1;
            }
            else
            {
                JQW1.Q1q1 += 0;
            }
            if (Distance.Checked == true)
            {
                JQW1.Q1q2 += 1;
            }
            else
            {
                JQW1.Q1q2 += 0;
            }
            if (Liquid.Checked == true)
            {
                JQW1.Q1q3 += 1;
            }
            else
            {
                JQW1.Q1q3 += 0;
            }
            if (_1939.Checked == true)
            {
                JQW1.Q1q4 += 1;
            }
            else
            {
                JQW1.Q1q4 += 0;
            }
            if (_1.Checked == true)
            {
                JQW1.Q1q5 += 1;
            }
            else
            {
                JQW1.Q1q5 += 0;
            }
        }
    }
}

```



```

        MessageBox.Show("Your Score in Medium level is " + JQW1.Quiz1());
        JQW1.Quiz1_Marks_Insertion();
    }

```

```

private void CloseButton_Click(object sender, EventArgs e)
{
    Close();
}

```

Junior Quiz 1.cs Junior Quiz 1.cs [Design] Form1.cs [Design]

Junior_Quiz_1

Quiz 1 Medium Level

MCQS **Total Marks: 05**

Q1) What you have to do Refresh the Computer Desktop screen?

☐ F2 ☐ F5 ☐ F8

Q2) What is the Formula of Distance?

☐ $S=V \times T$ ☐ $V=D/T$ ☐ $S=D/T$

Q3) Water is in?

☐ Gas Form ☐ Solid Form ☐ Liquid Form

Q4) When WWII happened?

☐ 1857 ☐ 1939 ☐ 1948

Q5) What will be $(-1) \times (-1)$?

☐ 1 ☐ 0 ☐ -1

```
Junior Quiz 1.cs [Design] Form1.cs [Design]
12113 Shahmeer's OOP LAB ASSIGNMENT 2 _12113_Shahmeer_s_OOP_LAB_ASSIGNMENT_2Junior_Quiz_1 Quiz1_Checker()

13 public partial class Junior_Quiz_1 : Form
14 {
15     1 reference
16     public Junior_Quiz_1()
17     {
18         InitializeComponent();
19     }
20
21     1 reference
22     private void button1_Click(object sender, EventArgs e)
23     {
24         Quiz1_Checker();
25         Junior_Quiz_2 JQ2 = new Junior_Quiz_2();
26         JQ2.Show();
27     }
28
29     Login_Main lm = new Login_Main();
30
31     1 reference
32     public void Quiz1_Checker()
33     {
34         DAO JQW1 = new DAO();
35         if (F5.Checked == true)
36         {
37             JQW1.Q1q1 += 1;
38         }
39         else
40         {
41             JQW1.Q1q1 += 0;
42         }
43         if (Distance.Checked == true)
44         {
45             JQW1.Q1q2 += 1;
46         }
47     }
48
49     90 % No issues found Ln: 55 Ch: 14 SPC CRLF
50
51 Show output from: Debug
52
53 Junior Quiz 1.cs [Design] Form1.cs [Design]
54 12113 Shahmeer's OOP LAB ASSIGNMENT 2 _12113_Shahmeer_s_OOP_LAB_ASSIGNMENT_2Junior_Quiz_1 Quiz1_Checker()
55
56 38 if (Distance.Checked == true)
57 39 {
58 40     JQW1.Q1q2 += 1;
59 41 }
60 42 else
61 43 {
62 44     JQW1.Q1q2 += 0;
63 45 }
64 46 if (Liquid.Checked == true)
65 47 {
66 48     JQW1.Q1q3 += 1;
67 49 }
68 50 else
69 51 {
70 52     JQW1.Q1q3 += 0;
71 53 }
72 54 if (_1939.Checked == true)
73 55 {
74 56     JQW1.Q1q4 += 1;
75 57 }
76 58 else
77 59 {
78 60     JQW1.Q1q4 += 0;
79 61 }
80 62 if (_1.Checked == true)
81 63 {
82 64     JQW1.Q1q5 += 1;
83 65 }
84 66 else
85 67 {
86 68     JQW1.Q1q5 += 0;
87 69 }
88 70 MessageBox.Show("Your Score in Medium level is " + JQW1.Quiz1());
89 71 JQW1.Quiz1_Marks_Insertion();
90 72 }
91 73
92     1 reference
93     private void CloseButton_Click(object sender, EventArgs e)
94     {
95         Close();
96     }
97 }
98
99 90 % No issues found Ln: 55 Ch: 14 SPC CRLF
```

Junior Quiz 2 Form:

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
```

```

using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;

namespace _12113_Shahmeer_s_OOP_LAB_ASSIGNMENT_2
{
    public partial class Junior_Quiz_2 : Form
    {
        public Junior_Quiz_2()
        {
            InitializeComponent();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            Quiz2_Cheker();
            Application.Exit();
        }
        public void Quiz2_Cheker()
        {
            DAO JQW2 = new DAO();
            if(ctrl1cv.Checked == true)
            {
                JQW2.Q2q1 += 1;
            }
            else
            {
                JQW2.Q2q1 += 0;
            }
            if(GA.Checked == true)
            {
                JQW2.Q2q2 += 1;
            }
            else
            {
                JQW2.Q2q2 += 0;
            }
            if(__1.Checked == true)
            {
                JQW2.Q2q3 += 1;
            }
            else
            {
                JQW2.Q2q3 += 0;
            }
            if(Speed.Checked == true)
            {
                JQW2.Q2q4 += 1;
            }
            else
            {
                JQW2.Q2q4 += 0;
            }
            if(_4096.Checked == true)
            {
                JQW2.Q2q5 += 1;
            }
            else
            {

```

```

        JQW2.Q2q5 += 0;
    }
    MessageBox.Show("Your Score in high level is " + JQW2.Quiz2());
    JQW2.Quiz2_Marks_Insertion();
    MessageBox.Show("Correct Answers were: " + "\n*Medium Level:\nQ1: F5\nQ2: S=VxT\nQ3:
Liquid Form\nQ4: 1939\nQ5: 1" +
        "\n*High Level:\nQ1: ctrl c+ ctrlv\nQ2: 9.8 m/s^2\nQ3: -1\nQ4: m/s\nQ5: -4096");
    }

    private void CloseButton_Click(object sender, EventArgs e)
    {
        Close();
    }
}

```

Junior Quiz 2.cs Junior Quiz 2.cs [Design] Form1.cs [Design]

Junior Quiz 2

Quiz 2 High Level

MCQS

Total Marks: 05

Q1) How to Copy Paste some content on Computer?

☐ Ctrl+c ☐ ctrl c+ctrl v ☐ ctrl+v

Q2) Earth's Gravitational Acceleration is?

☐ 9.8 m/s^2 ☐ 11 m/s^2 ☐ 7 m/s^2

Q3) i^2 (iota square) value?

☐ 1 ☐ 0 ☐ -1

Q4) Speed's SI unit is?

☐ ms ☐ m/s ☐ m/s^2

Q5) What will be (-64)x(64)?

☐ -4096 ☐ 4096 ☐ 64

```
Junior Quiz 2.cs [Design] Form1.cs [Design]
12113 Shahmeer's OOP LAB ASSIGNMENT 2 _12113_Shahmeer_s_OOP_LAB_ASSIGNMENT_2Junior_Quiz_2 Quiz2_Checker()

4 references
13 public partial class Junior_Quiz_2 : Form
14 {
15     1 reference
16     public Junior_Quiz_2()
17     {
18         InitializeComponent();
19     }
20
21     1 reference
22     private void button1_Click(object sender, EventArgs e)
23     {
24         Quiz2_Checker();
25         Application.Exit();
26     }
27
28     1 reference
29     public void Quiz2_Checker()
30     {
31         DAO JQW2 = new DAO();
32         if(ctrl1cv.Checked == true)
33         {
34             JQW2.Q2q1 += 1;
35         }
36         else
37         {
38             JQW2.Q2q1 += 0;
39         }
40         if(GA.Checked == true)
41         {
42             JQW2.Q2q2 += 1;
43         }
44         else
45         {
46             JQW2.Q2q2 += 0;
47         }
48         if(_1.Checked == true)
49         {
50             JQW2.Q2q3 += 1;
51         }
52         else
53         {
54             JQW2.Q2q3 += 0;
55         }
56         if(Speed.Checked == true)
57         {
58             JQW2.Q2q4 += 1;
59         }
60         else
61         {
62             JQW2.Q2q4 += 0;
63         }
64         if(_4096.Checked == true)
65         {
66             JQW2.Q2q5 += 1;
67         }
68         else
69         {
70             JQW2.Q2q5 += 0;
71         }
72         MessageBox.Show("Your Score in high level is " + JQW2.Quiz2());
73         JQW2.Quiz2_Marks_Insertion();
74         MessageBox.Show("Correct Answers were: " + "\n*Medium Level:\nQ1: F5\nQ2: S=VxT\nQ3: Liquid Form\nQ4: 1939\nQ5: 1" +
75             "\n*High Level:\nQ1: ctrl c+ ctrl v\nQ2: 9.8 m/s^2\nQ3: -1\nQ4: m/s\nQ5: -4096");
76     }
77
78     1 reference
79     private void CloseButton_Click(object sender, EventArgs e)
80     {
81         Close();
82     }
83 }
```

```
Junior Quiz 2.cs [Design] Form1.cs [Design]
12113 Shahmeer's OOP LAB ASSIGNMENT 2 _12113_Shahmeer_s_OOP_LAB_ASSIGNMENT_2Junior_Quiz_2 Quiz2_Checker()

46 JQW2.Q2q3 += 1;
47 }
48 else
49 {
50     JQW2.Q2q3 += 0;
51 }
52 if(Speed.Checked == true)
53 {
54     JQW2.Q2q4 += 1;
55 }
56 else
57 {
58     JQW2.Q2q4 += 0;
59 }
60 if(_4096.Checked == true)
61 {
62     JQW2.Q2q5 += 1;
63 }
64 else
65 {
66     JQW2.Q2q5 += 0;
67 }
68 MessageBox.Show("Your Score in high level is " + JQW2.Quiz2());
69 JQW2.Quiz2_Marks_Insertion();
70 MessageBox.Show("Correct Answers were: " + "\n*Medium Level:\nQ1: F5\nQ2: S=VxT\nQ3: Liquid Form\nQ4: 1939\nQ5: 1" +
71     "\n*High Level:\nQ1: ctrl c+ ctrl v\nQ2: 9.8 m/s^2\nQ3: -1\nQ4: m/s\nQ5: -4096");
72 }
73
74 1 reference
75 private void CloseButton_Click(object sender, EventArgs e)
76 {
77     Close();
78 }
79 }
80 }
```

Senior Quiz 1 Form:

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;

namespace _12113_Shahmeer_s_OOP_LAB_ASSIGNMENT_2
{
    public partial class Senior_Quiz_1 : Form
    {
        public Senior_Quiz_1()
        {
            InitializeComponent();
        }

        private void CloseButton_Click(object sender, EventArgs e)
        {
            Close();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            Quiz_Checker();
            Senior_Quiz_2 SQ2 = new Senior_Quiz_2();
            SQ2.Show();
        }

        public void Quiz_Checker()
        {
            DAO SQW1 = new DAO();
            if (Pressure.Checked == true)
            {
                SQW1.Q1q1 += 1;
            }
            else
            {
                SQW1.Q1q1 += 0;
            }
            if (Ohms_Law.Checked == true)
            {
                SQW1.Q1q2 += 1;
            }
            else
            {
                SQW1.Q1q2 += 0;
            }
            if (Plasma.Checked == true)
            {
                SQW1.Q1q3 += 1;
            }
            else
            {
                SQW1.Q1q3 += 0;
            }
        }
    }
}
```

```

        if (False.Checked == true)
        {
            SQW1.Q1q4 += 1;
        }
        else
        {
            SQW1.Q1q4 += 0;
        }
        if (Computer1st.Checked == true)
        {
            SQW1.Q1q5 += 1;
        }
        else
        {
            SQW1.Q1q5 += 0;
        }
        MessageBox.Show("Your Quiz Total Score is " + SQW1.Quiz1());
        SQW1.Quiz1_Marks_Insertion();
    }
}
}

```

Senior Quiz 1.cs Senior Quiz 1.cs [Design] Form1.cs [Design]

Senior_Quiz_1

Quiz 1 Medium Level

MCQS *Total Marks: 05*

Q1) Pressure is given by?

☐ *P=F-A*
☐ *P=F/A*
☐ *P=F*A*

Q2) Ohm's law is?

☐ *V=IxR*
☐ *V=I/R*
☐ *V=I-R*

Q3) Plasma is?

☐ *1st State of Matter*
☐ *3rd State of Matter*
☐ *4th State of Matter*

Q4) Hardware and Software can work separately?

☐ *True*
☐ *False*
☐ *Both True _False*

Q5) 1st gen Computers Were?

☐ *Vacuum Tubes*
☐ *Transistors*
☐ *IC*

SUBMIT

Leave

```
Senior Quiz 1.cs [Design] Form1.cs [Design]
12113 Shahmeer's OOP LAB ASSIGNMENT 2
12113_Shahmeer_s_OOP_LAB_ASSIGNMENT_2.Senior_Quiz_1
Quiz_Checker()

4 references
public partial class Senior_Quiz_1 : Form
{
    1 reference
    public Senior_Quiz_1()
    {
        InitializeComponent();
    }

    1 reference
    private void CloseButton_Click(object sender, EventArgs e)
    {
        Close();
    }

    1 reference
    private void button1_Click(object sender, EventArgs e)
    {
        Quiz_Checker();
        Senior_Quiz_2 SQ2 = new Senior_Quiz_2();
        SQ2.Show();
    }

    1 reference
    public void Quiz_Checker()
    {
        DAO SQW1 = new DAO();
        if (Pressure.Checked == true)
        {
            SQW1.Q1q1 += 1;
        }
        else
        {
            SQW1.Q1q1 += 0;
        }
        if (Ohms_Law.Checked == true)
        {
            SQW1.Q1q2 += 1;
        }
        else
        {
            SQW1.Q1q2 += 0;
        }
        if (Plasma.Checked == true)
        {
        }
    }
}

90 % No issues found Ln: 33 Ch: 34 SPC CRLF
```

```
Senior Quiz 1.cs [Design] Form1.cs [Design]
12113 Shahmeer's OOP LAB ASSIGNMENT 2
12113_Shahmeer_s_OOP_LAB_ASSIGNMENT_2.Senior_Quiz_1
Quiz_Checker()

41
42
43 if (Ohms_Law.Checked == true)
44 {
45     SQW1.Q1q2 += 1;
46 }
47 else
48 {
49     SQW1.Q1q2 += 0;
50 }
51 if (Plasma.Checked == true)
52 {
53     SQW1.Q1q3 += 1;
54 }
55 else
56 {
57     SQW1.Q1q3 += 0;
58 }
59 if (False.Checked == true)
60 {
61     SQW1.Q1q4 += 1;
62 }
63 else
64 {
65     SQW1.Q1q4 += 0;
66 }
67 if (Computer1st.Checked == true)
68 {
69     SQW1.Q1q5 += 1;
70 }
71 else
72 {
73     SQW1.Q1q5 += 0;
74 }
75 MessageBox.Show("Your Quiz Total Score is " + SQW1.Q1q1());
76 SQW1.Q1q1_Marks_Insertion();
77 }
78 }
79

90 % No issues found Ln: 33 Ch: 34 SPC CRLF
```


Senior Quiz 2 Form:

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;

namespace _12113_Shahmeer_s_OOP_LAB_ASSIGNMENT_2
{
    public partial class Senior_Quiz_2 : Form
    {
        public Senior_Quiz_2()
        {
            InitializeComponent();
        }

        private void CloseButton_Click(object sender, EventArgs e)
        {
            Close();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            Quiz_Checker();
            Application.Exit();
        }

        public void Quiz_Checker()
        {
            DAO SQW2 = new DAO();
            if (Spiral.Checked == true)
            {
                SQW2.Q2q1 += 1;
            }
            else
            {
                SQW2.Q2q1 += 0;
            }
            if (temparature.Checked == true)
            {
                SQW2.Q2q2 += 1;
            }
            else
            {
                SQW2.Q2q2 += 0;
            }
            if (__60.Checked == true)
            {
                SQW2.Q2q3 += 1;
            }
            else
            {
                SQW2.Q2q3 += 0;
            }
            if (Newton.Checked == true)
```

```

    {
        SQW2.Q2q4 += 1;
    }
    else
    {
        SQW2.Q2q4 += 0;
    }
    if (_5.Checked == true)
    {
        SQW2.Q2q5 += 1;
    }
    else
    {
        SQW2.Q2q5 += 0;
    }
    MessageBox.Show("Your Score in High level is " + SQW2.Quiz2());
    SQW2.Quiz2_Marks_Insertion();
    MessageBox.Show("Correct Answers were: " + "\n*Medium Level:\nQ1: P=F/A\nQ2:
V=IxR\nQ3: 4th State of Matter\nQ4: False\nQ5: Vacuum Tubes" +
        "\n*High Level:\nQ1: Spiral\nQ2: Temperature\nQ3: 60\nQ4: N\nQ5: 0.07");
}
}
}

```

Senior Quiz 2.cs Senior Quiz 2.cs [Design] Form1.cs [Design]

Senior_Quiz_2

Quiz 2 High Level

MCQS **Total Marks: 05**

Q1) Shape of Milky Way galaxy is?

☐ Oval ☐ Spiral ☐ ctrl+v

Q2) The Different Colours of different stars are due to the variations of?

☐ Temperature ☐ Density ☐ Pressure

Q3) What is three-fifth of Hundred?

☐ 6 ☐ 20 ☐ 60

Q4) Force's SI unit is?

☐ ms ☐ N ☐ m/s^2

Q5) What 7% is equal to?

☐ 0.07 ☐ 7 ☐ 0.7

```

Senior Quiz 2.cs [Design]    Form1.cs [Design]
12113 Shahmeer's OOP LAB ASSIGNMENT 2    _12113_Shahmeer_s_OOP_LAB_ASSIGNMENT_2.Senior_Quiz_2    Quiz_Checker()
4 references
13 public partial class Senior_Quiz_2 : Form
14 {
15     1 reference
16     public Senior_Quiz_2()
17     {
18         InitializeComponent();
19     }
20     1 reference
21     private void CloseButton_Click(object sender, EventArgs e)
22     {
23         Close();
24     }
25     1 reference
26     private void button1_Click(object sender, EventArgs e)
27     {
28         Quiz_Checker();
29         Application.Exit();
30     }
31     1 reference
32     public void Quiz_Checker()
33     {
34         DAO SQW2 = new DAO();
35         if (Spiral.Checked == true)
36         {
37             SQW2.Q2q1 += 1;
38         }
39         else
40         {
41             SQW2.Q2q1 += 0;
42         }
43         if (temparature.Checked == true)
44         {
45             SQW2.Q2q2 += 1;
46         }
47         else
48         {
49             SQW2.Q2q2 += 0;
50         }
51         if (__60.Checked == true)
52         {
53             SQW2.Q2q3 += 1;
54         }
55     }
56 }
90 %    No issues found    Ln: 52    Ch: 14    SPC    CRLF

```

```

Senior Quiz 2.cs [Design]    Form1.cs [Design]
12113 Shahmeer's OOP LAB ASSIGNMENT 2    _12113_Shahmeer_s_OOP_LAB_ASSIGNMENT_2.Senior_Quiz_2    Quiz_Checker()
44 }
45 else
46 {
47     SQW2.Q2q2 += 0;
48 }
49 if (__60.Checked == true)
50 {
51     SQW2.Q2q3 += 1;
52 }
53 else
54 {
55     SQW2.Q2q3 += 0;
56 }
57 if (Newton.Checked == true)
58 {
59     SQW2.Q2q4 += 1;
60 }
61 else
62 {
63     SQW2.Q2q4 += 0;
64 }
65 if (__5.Checked == true)
66 {
67     SQW2.Q2q5 += 1;
68 }
69 else
70 {
71     SQW2.Q2q5 += 0;
72 }
73 MessageBox.Show("Your Score in High level is " + SQW2.Quiz2());
74 SQW2.Quiz2_Marks_Insertion();
75 MessageBox.Show("Correct Answers were: " + "\n*Medium Level:\nQ1: P=F/A\nQ2: V=IxR\nQ3: 4th State of Matter\nQ4: False\nQ5: Vacuum Tubes" +
76     "\n*High Level:\nQ1: Spiral\nQ2: Temperature\nQ3: 60\nQ4: N\nQ5: 0.07");
77 }
78 }
79 }
80 }
90 %    No issues found    Ln: 52    Ch: 14    SPC    CRLF

```

Output:

LOGIN

Login With Your Respective Status and ID, Password...

Name:

Type:

ID:

Password:

The functioning of this login form 1 page is according to data base's Table which is this... It's Type, ID, Password functioning is done row wise the code is written in dao class in method called Login an overloaded method having polymorphism of method overloading type.....

LoginData					
	ID	LoginID	Password	Type	Add New Field
	1	JS12458	3216549	Junior-Student	
	2	SS85421	9876541	Senior-Student	
*	(New)				

And when we insert the things correctly according to data table and with our name a functioning of marking automatically is also done to mark student's attendance like to check who logged in for the quiz or not so that data insertion is done in this table of data base....

All Tables	LoginData	LoginStdAtt				
LoginData	ID	Name	Type	Type_ID	Attendance	Add New Field
LoginData : Table	1	Shahmeer	Senior-Student	SS85421	P	
Quiz2_Scores	2	Hammad	Junior-Student	JS12458	P	
Quiz2_Scores : Table	3	Shahmeer	Senior-Student	SS85421	P	
LoginStdAtt	4	Sameer	Junior-Student	JS12458	P	
LoginStdAtt : Table	5	Adnan	Junior-Student	JS12458	P	
Quiz1_Scores	6	Affan	Junior-Student	JS12458	P	
Quiz1_Scores : Table	7	Shahmeer	Senior-Student	SS85421	P	
	*	(New)				

And then the quiz will proceed according to your logging in data that you entered through the login page if you login with senior student id and password and type then you will be proceeded to senior students quiz thing and I you logins with junior student id and password then you will be proceeded to junior students quiz thing here I logged in with senior student's id and pass and type so here is my desired output....

Senior_Quiz_1

Quiz 1 Medium Level

MCQS Total Marks: 05

Q1) Pressure is given by?

☐ $P=F \cdot A$
☒ $P=F/A$
☐ $P=F \cdot A$

Q2) Ohm's law is?

☒ $V=I \cdot R$
☐ $V=I/R$
☐ $V=I \cdot R$

Q3) Plasma is?

☐ 1st State of Matter
 ☒ 3rd State of Matter
 ☐ 4th State of Matter

Q4) Hardware and Software can work separately?

☐ True
 ☒ False
 ☐ Both True False

Q5) 1st gen Computers Were?

☒ Vacuum Tubes
 ☐ Transistors
 ☐ IC

And automatically my score was shown in the messagebox and it also got saved in the database automatically through the functioning of that dao class int method of Quiz1_MarksInsertion.....

Quiz 1 Medium Level
MCQS Total Marks: 05

Q1) Pressure is given by?
☐ $P=F-A$ ☒ $P=F/A$ ☐ $P=F*A$

Q2) Ohm's law is?
☒ $V=I \times R$ ☐ $V=I/R$ ☐ $V=I-R$

Q3) Plasma is 3rd State of Matter ☐ 4th State of Matter

Q4) Hard disk stores data separately?
☐ True ☐ False ☐ Both True False

Q5) 1st generation transistors are made of IC ☐ IC


Buttons: SUBMIT, Leave

Modal Dialog: Your Quiz Total Score is 4, OK

ID	Name	Type	Type_ID	Scores	Add New Field
1	Shahmeer	Senior-Student	SS85421	0	
2	Hammad	Junior-Student	JS12458	4	
3	Shahmeer	Senior-Student	SS85421	5	
4	Sameer	Junior-Student	JS12458	3	
5	Adnan	Junior-Student	JS12458	5	
6	Affan	Junior-Student	JS12458	5	
7	Shahmeer	Senior-Student	SS85421	4	
*	(New)				

Here on 7th index.....

And then after that The High level Quiz started as soon as I finished the medium level one.....

 Senior_Quiz_2

Quiz 2 High Level

MCQS

Total Marks: 05

Q1) Shape of Milky Way galaxy is?

☐ Oval

☒ Spiral

☐ ctrl+v

Q2) The Different Colours of different stars are due to the variations of?

☒ Temperature

☐ Density

☐ Pressure

Q3) What is three-fifth of Hundred?

☐ 6

☐ 20

☒ 60

Q4) Force's SI unit is?

☐ ms

☒ N

☐ m/s^2

Q5) What 7% is equal to?

☒ 0.07

☐ 7

☐ 0.7

SUBMIT

Leave

Senior_Quiz_2

Quiz 2 High Level

MCQS **Total Marks: 05**

Q1) Shape of Milky Way galaxy is?

☐ Oval ☒ Spiral ☐ ctrl+v

Q2) The Different Colours of different stars are due to the variations of?

☒ Temperature ☐ Pressure

Q3) What is three-fifth of Hundred?

☐ 6

Q4) Force's SI unit is?

☐ ms

Q5) What 7% is equal to?

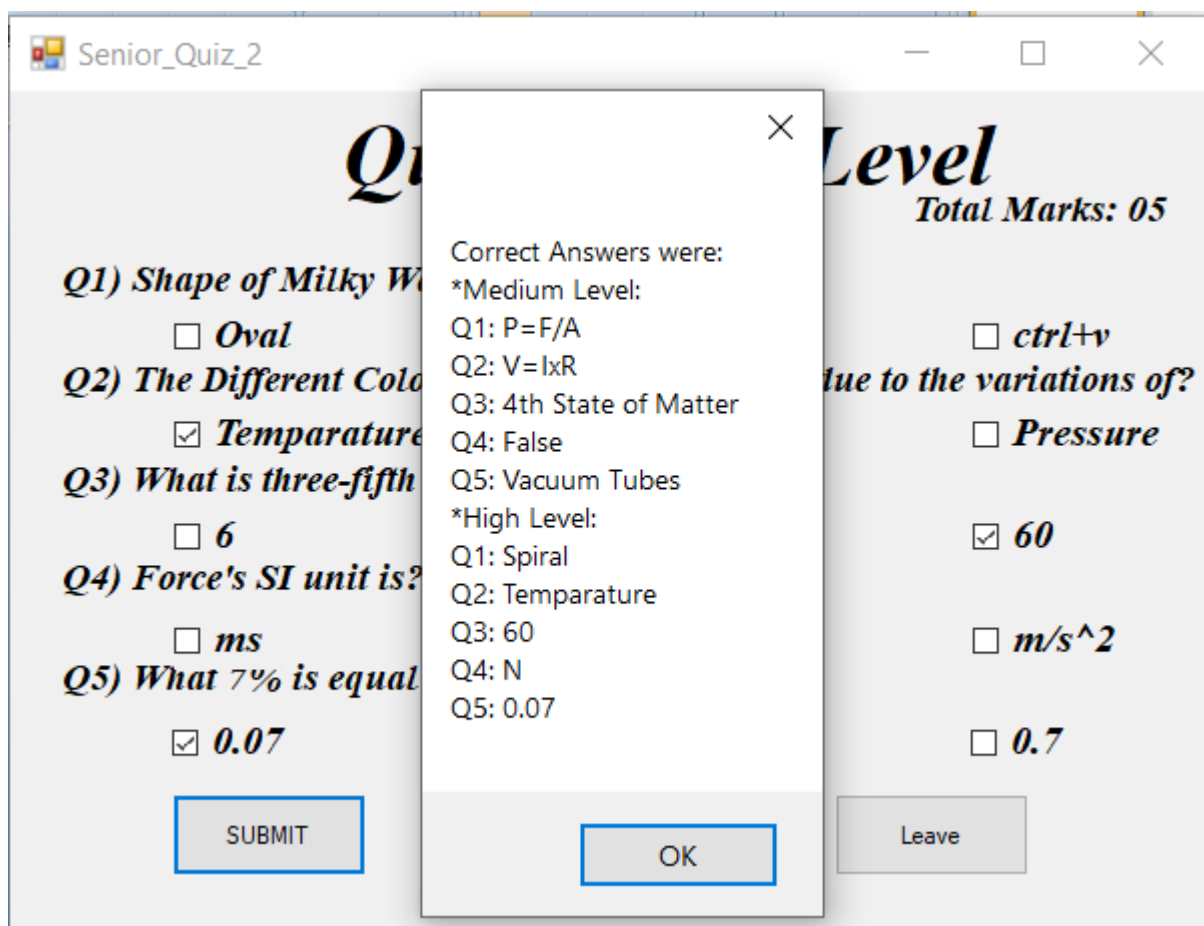
☒ 0.07

Your Score in High level is 5

This score also got saved automatically in the data base data table of quiz 2 scores.....

All Tables	LoginData	LoginStdAtt	Quiz1_Scores	Quiz2_Scores		
LoginData	ID	Name	Type	Type_ID	Scores	Add New Field
LoginData : Table	1	Hammad	Junior-Student	JS12458	4	
Quiz2_Scores	2	Shahmeer	Senior-Student	SS85421	4	
Quiz2_Scores : Table	3	Sameer	Junior-Student	JS12458	5	
LoginStdAtt	4	Adnan	Junior-Student	JS12458	5	
LoginStdAtt : Table	5	Affan	Junior-Student	JS12458	5	
Quiz1_Scores	6	Shahmeer	Senior-Student	SS85421	5	
Quiz1_Scores : Table	*	(New)				

Here on the 6th index row.....



And the correct answers are shown here of both medium and high level quizzes same function will happen if you log's in with junior student's id password and type only your type id and type will be differently saved in the data base as "junior-student" in typ and type id will "JS12458"

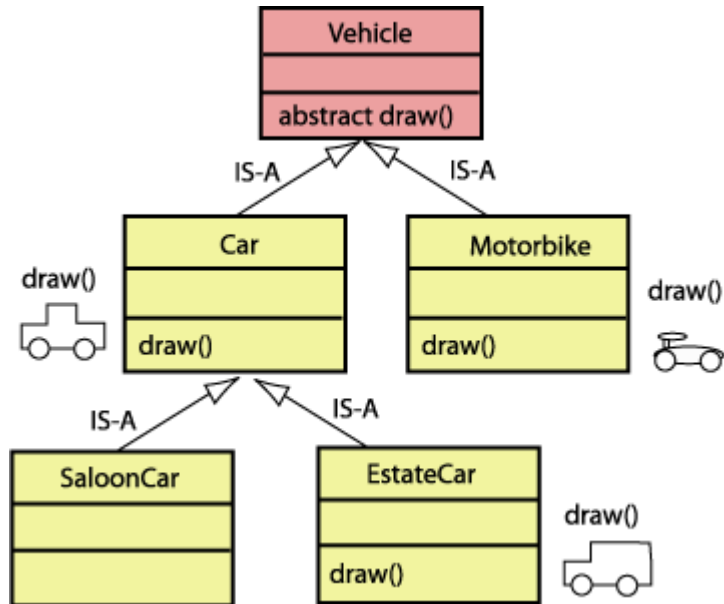
Ms. Yumna Iftikhar

[Add screen shots of code and screen shots of outputs]

Question – 2 [CONSOLE BASED]

[5 mark]

Perform the following question and apply appropriate OOP concept.



Inputted Code:

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

namespace workk
{
    class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("OOP LAB ASSIGNMENT 2");
            Console.WriteLine("Question no. 2:");
            Motorbike MB = new Motorbike();
            MB.draw();
            EstateCar EC = new EstateCar();
            EC.draw();
            EC.EC();
            SaloonCar SC = new SaloonCar();
            SC.draw();
            SC.SV();
            Console.ReadKey();
        }
    }
}

abstract class Vehicle
```

```

{
    public abstract void draw();
}
class Car : Vehicle
{
    public override void draw()
    {
        Console.WriteLine("Car class is the child of Vehicle Class, this method is overridden
by Car class.");
        Console.WriteLine("Car is a four wheel Vehicle and it Moves.");
    }
}
class Motorbike : Vehicle
{
    public override void draw()
    {
        Console.WriteLine("MotorBike Class is the child of Vehicle Class, this method is
overridden by MotorBike class.");
        Console.WriteLine("MotorBike is 2 Wheel Vehicle and it Moves.\n");
    }
}
class SaloonCar : Car
{
    public void SV()
    {
        Console.WriteLine("This is Saloon car class child of car class.\n");
    }
}
class EstateCar : Car
{
    public void EC()
    {
        Console.WriteLine("This is EstateCar class child of Car class.\n");
    }
}
}

```

The screenshot shows a Visual Studio IDE with a C# program. The main window displays the code for a program that demonstrates class inheritance. The code defines an abstract class `Vehicle` with a `draw()` method. Two classes, `Car` and `Motorbike`, inherit from `Vehicle` and override the `draw()` method. `Car` has a `SV()` method, and `EstateCar` has an `EC()` method. The `Program` class contains a `Main` method that creates instances of `Motorbike`, `EstateCar`, and `SaloonCar`, and calls their `draw()` and `SV()` methods. The console output window at the bottom shows the results of these calls.

```

Program.cs
workk
0 references
class Program
{
    0 references
    static void Main(string[] args)
    {
        Console.WriteLine("OOP LAB ASSIGNMENT 2");
        Console.WriteLine("Question no. 2:");
        Motorbike MB = new Motorbike();
        MB.draw();
        EstateCar EC = new EstateCar();
        EC.draw();
        EC.EC();
        SaloonCar SC = new SaloonCar();
        SC.draw();
        SC.SV();
        Console.ReadKey();
    }
}
2 references
abstract class Vehicle
{
    5 references
    public abstract void draw();
}
2 references
class Car : Vehicle
{
    5 references
    public override void draw()
    {
        Console.WriteLine("Car class is the child of Vehicle Class, this method is overridden by Car class.");
        Console.WriteLine("Car is a four wheel Vehicle and it Moves.");
    }
}

```

90 % No issues found Ln: 54 Ch: 6 SPC CRLF

Output

```
28 public abstract void draw();
29 }
30 class Car : Vehicle
31 {
32     public override void draw()
33     {
34         Console.WriteLine("Car class is the child of Vehicle Class, this method is overridden by Car class.");
35         Console.WriteLine("Car is a four wheel Vehicle and it Moves.");
36     }
37 }
38 class Motorbike : Vehicle
39 {
40     public override void draw()
41     {
42         Console.WriteLine("MotorBike Class is the child of Vehicle Class, this method is overridden by MotorBike class.");
43         Console.WriteLine("MotorBike is 2 Wheel Vehicle and it Moves.\n");
44     }
45 }
46 class SaloonCar : Car
47 {
48     public void SV()
49     {
50         Console.WriteLine("This is Saloon car class child of car class.\n");
51     }
52 }
53 class EstateCar : Car
54 {
55     public void EC()
56     {
57         Console.WriteLine("This is EstateCar class child of Car class.\n");
58     }
59 }
60
61
```

Output:

```
C:\Users\hp\source\repos\workk\workk\bin\Debug\workk.exe
OOP LAB ASSIGNMENT 2
Question no. 2:
MotorBike Class is the child of Vehicle Class, this method is overridden by MotorBike class.
MotorBike is 2 Wheel Vehicle and it Moves.

Car class is the child of Vehicle Class, this method is overridden by Car class.
Car is a four wheel Vehicle and it Moves.
This is EstateCar class child of Car class.

Car class is the child of Vehicle Class, this method is overridden by Car class.
Car is a four wheel Vehicle and it Moves.
This is Saloon car class child of car class.
```