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:

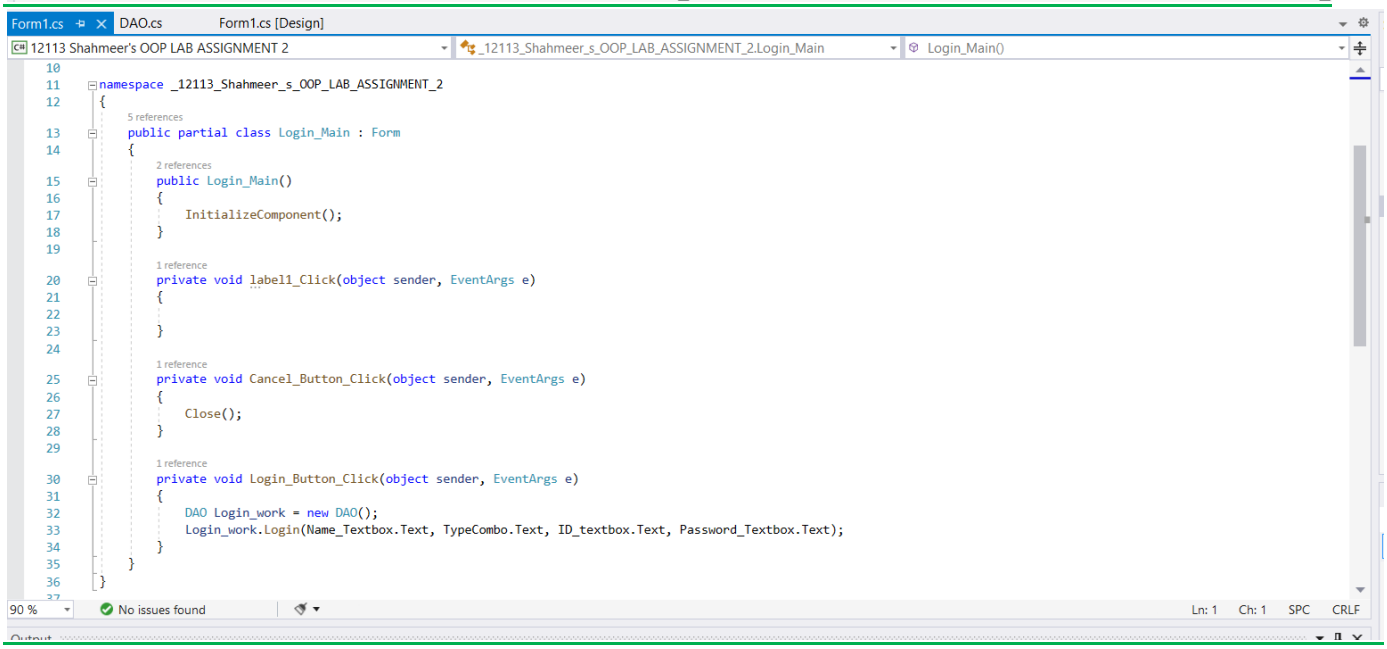
Apply OOP concepts:
1: classes
2: Constructor overloading
3: static keyword
4: methods

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   DAO.cs   Form1.cs [Design]
12113 Shahmeer's OOP LAB ASSIGNMENT 2
_12113_Shahmeer_s_OOP_LAB_ASSIGNMENT_2.Login_Main
Login_Main()

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

        1 reference
        private void label1_Click(object sender, EventArgs e)
        {

        }

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

        1 reference
        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);
        }
    }
}

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```
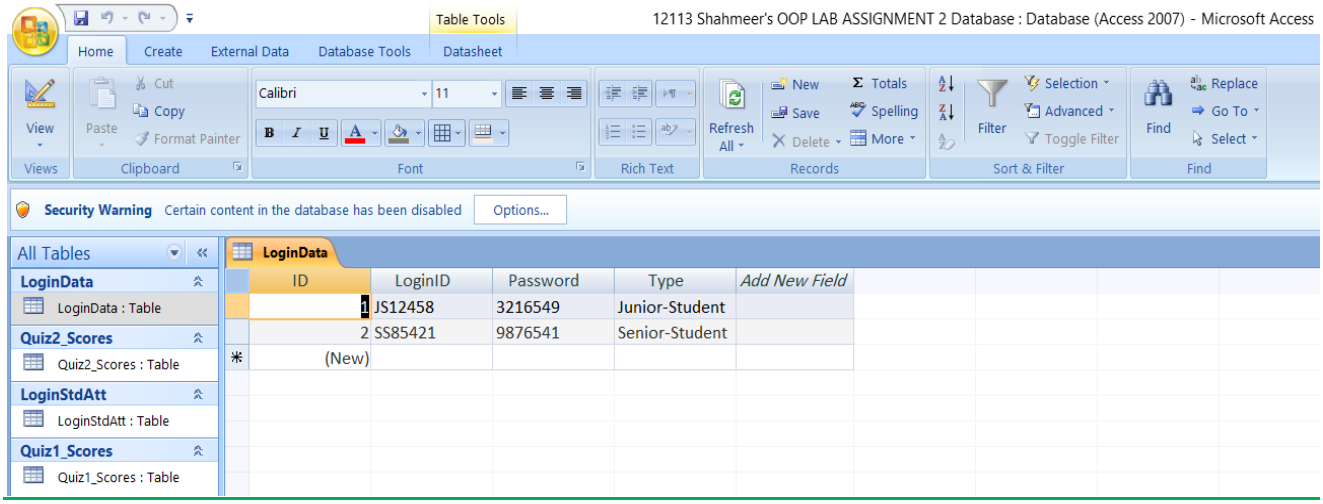

The functioning of this form will be according to a database data table and the database's functioning is done in the DAO class.



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 contructor overloading
        {
            string Querry = "Select * From LoginData";
            OleDbConnection CONNECTION = new OleDbConnection(Connection);
            CONNECTION.Open();
            OleDbCommand CMD = new OleDbCommand(Querry, 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 querry = "Insert into LoginStdAtt([Name],[Type],[Type_ID],[Attendance]) values
('" + Name + "', '" + Type + "', '" + ID + "', '" + "P" + "')";
            CONNECTION(querry);
        }
        public void CONNECTION(string QUERRY)
        {
            OleDbConnection CON = new OleDbConnection(Connection);
            OleDbCommand cmd = new OleDbCommand(QUERRY, 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 QUERRY = "Insert into Quiz1_Scores([Name],[Type],[Type_ID],[Scores]) values ('"
+ name + "', '" + type + "', '" + type_id + "', '" + Q1.ToString() + "')";
            CONNECTION(QUERRY);
        }
        public void Quiz2_Marks_Insertion()
        {
            int Q2 = Quiz2();
```

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

DAO.cs | Form1.cs [Design]

12113 Shahmeer's OOP LAB ASSIGNMENT 2 | _12113_Shahmeer_s_OOP_LAB_ASSIGNMENT_2.DAO | Quiz2()

```
using System.Windows.Forms;
using System.Data;
using System.Data.OleDb;

namespace _12113_Shahmeer_s_OOP_LAB_ASSIGNMENT_2
{
    10 references
    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 Dat
        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;
        1 reference
        public void Login(string Name, string Type, string ID, string Password)//polymorphism type of contructor overloading
        {
            string Querry = "Select * From LoginData";
            OleDbConnection CONNECTION = new OleDbConnection(Connection);
            CONNECTION.Open();
            OleDbCommand CMD = new OleDbCommand(Querry, 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);
            }
```

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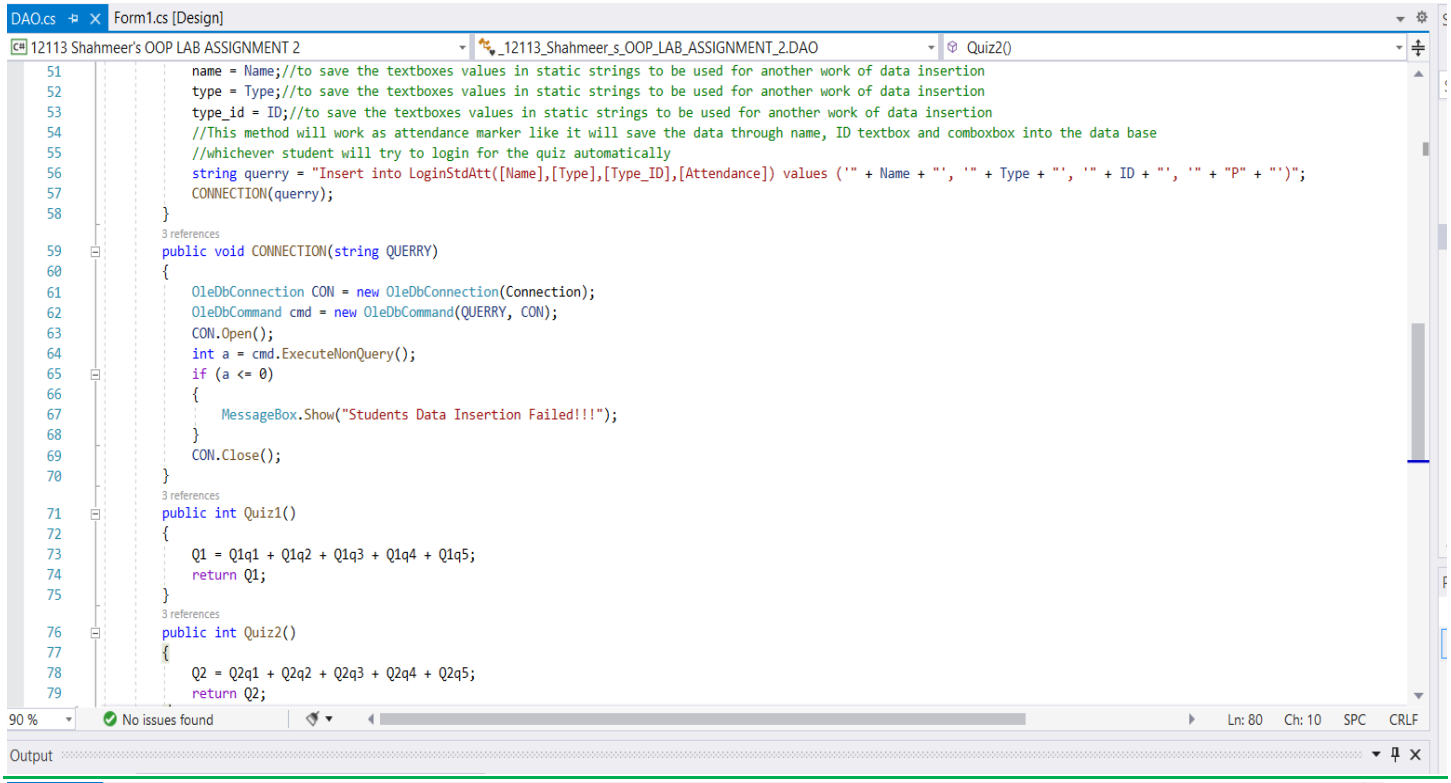
DAO.cs | Form1.cs [Design]

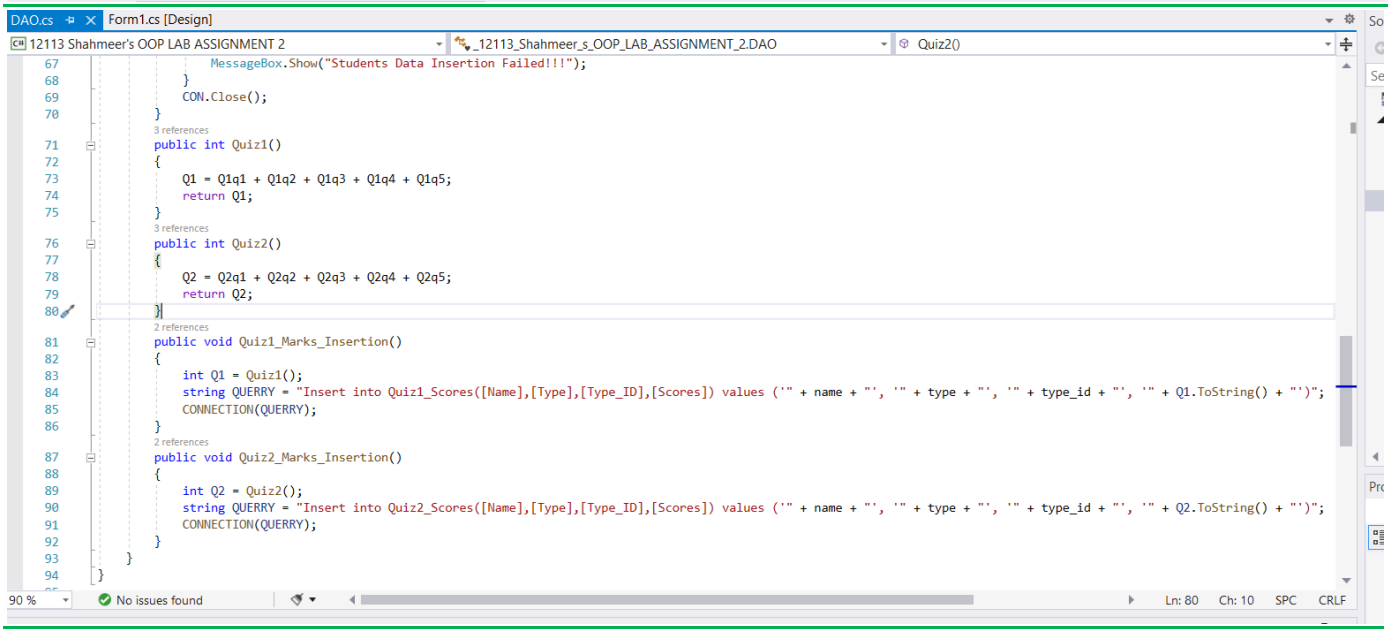
12113 Shahmeer's OOP LAB ASSIGNMENT 2 | _12113_Shahmeer_s_OOP_LAB_ASSIGNMENT_2.DAO | Quiz2()

```
            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();
            }
        }
        2 references
        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 querry = "Insert into LoginStdAtt([Name],[Type],[Type_ID],[Attendance]) values ('" + Name + "', '" + Type + "', '" + ID + "', '" + "P" + "')";
            CONNECTION(querry);
        }
```

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 comboxbox into the data base
55          //whichever student will try to login for the quiz automatically
56          string querry = "Insert into LoginStdAtt([Name],[Type],[Type_ID],[Attendance]) values ('" + Name + "', '" + Type + "', '" + ID + "', '" + "P" + "')";
57          CONNECTION(querry);
58      }
        3 references
59      public void CONNECTION(string QUERRY)
60      {
61          OleDbConnection CON = new OleDbConnection(Connection);
62          OleDbCommand cmd = new OleDbCommand(QUERRY, CON);
63          CON.Open();
64          int a = cmd.ExecuteNonQuery();
65          if (a <= 0)
66          {
67              MessageBox.Show("Students Data Insertion Failed!!!");
68          }
69          CON.Close();
70      }
        3 references
71      public int Quiz1()
72      {
73          Q1 = Q1q1 + Q1q2 + Q1q3 + Q1q4 + Q1q5;
74          return Q1;
75      }
        3 references
76      public int Quiz2()
77      {
78          Q2 = Q2q1 + Q2q2 + Q2q3 + Q2q4 + Q2q5;
79          return Q2;
90 %  No issues found  Ln: 80  Ch: 10  SPC  CRLF
Output
```



```
DAO.cs  Form1.cs [Design]
12113 Shahmeer's OOP LAB ASSIGNMENT 2  _12113_Shahmeer_s_OOP_LAB_ASSIGNMENT_2.DAO  Quiz2()
67              MessageBox.Show("Students Data Insertion Failed!!!");
68          }
69          CON.Close();
70      }
        3 references
71      public int Quiz1()
72      {
73          Q1 = Q1q1 + Q1q2 + Q1q3 + Q1q4 + Q1q5;
74          return Q1;
75      }
        3 references
76      public int Quiz2()
77      {
78          Q2 = Q2q1 + Q2q2 + Q2q3 + Q2q4 + Q2q5;
79          return Q2;
80      }
        2 references
81      public void Quiz1_Marks_Insertion()
82      {
83          int Q1 = Quiz1();
84          string QUERRY = "Insert into Quiz1_Scores([Name],[Type],[Type_ID],[Scores]) values ('" + name + "', '" + type + "', '" + type_id + "', '" + Q1.ToString() + "')";
85          CONNECTION(QUERRY);
86      }
        2 references
87      public void Quiz2_Marks_Insertion()
88      {
89          int Q2 = Quiz2();
90          string QUERRY = "Insert into Quiz2_Scores([Name],[Type],[Type_ID],[Scores]) values ('" + name + "', '" + type + "', '" + type_id + "', '" + Q2.ToString() + "')";
91          CONNECTION(QUERRY);
92      }
93  }
94  }
90 %  No issues found  Ln: 80  Ch: 10  SPC  CRLF
```

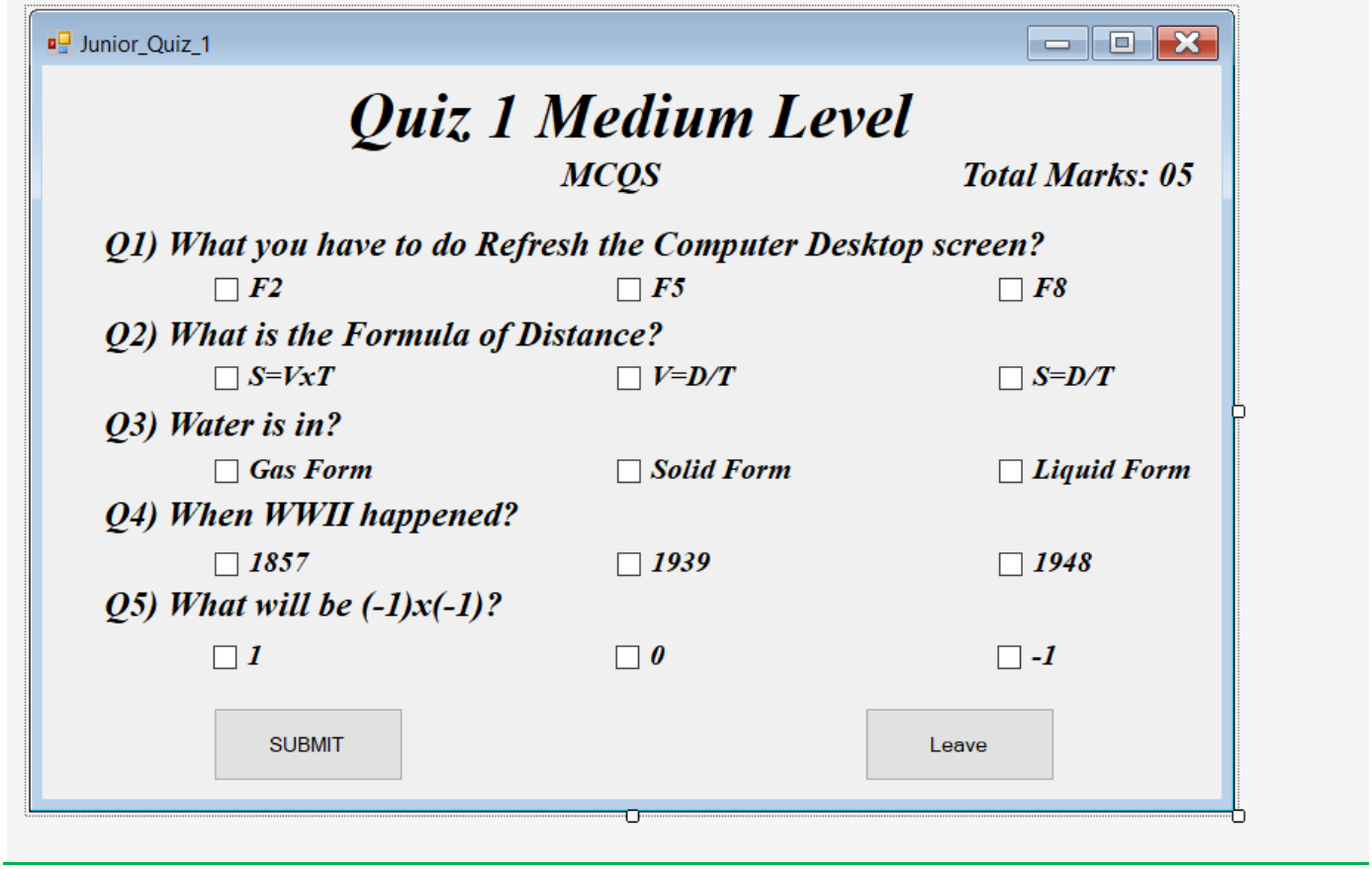
Junior Quiz 1 Form:

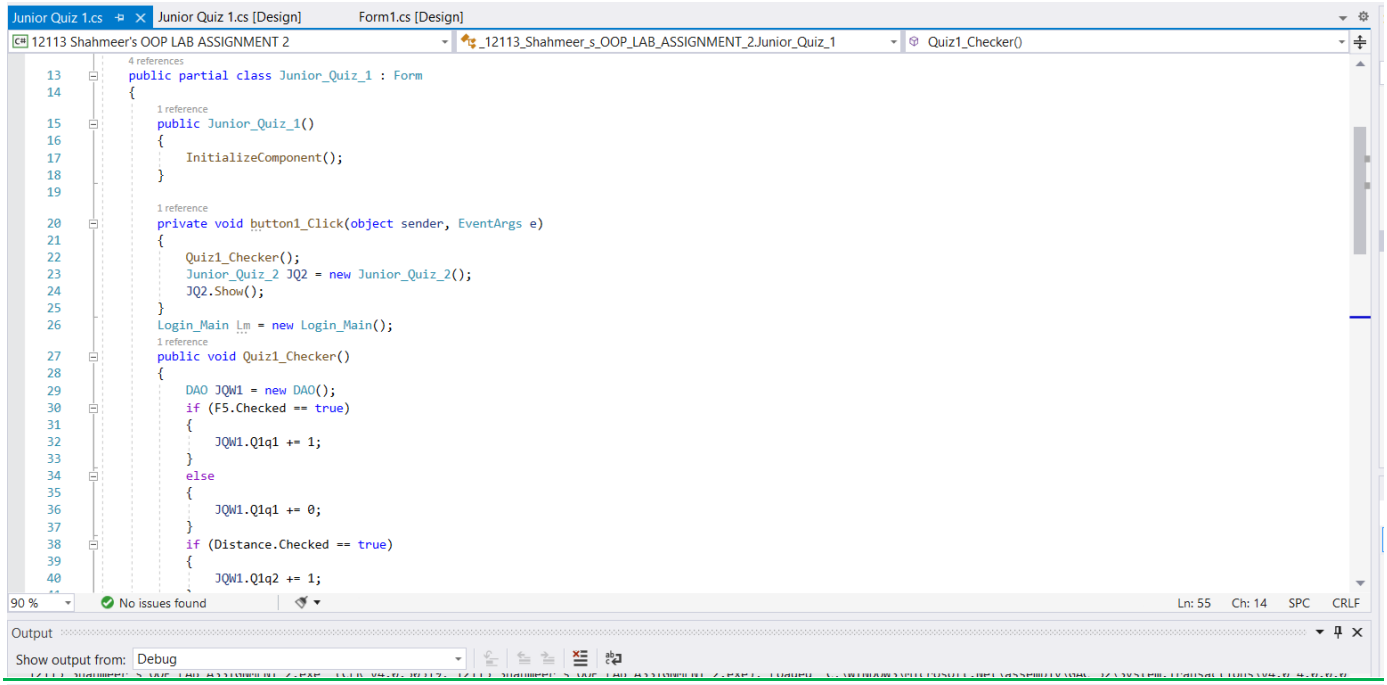
```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;
```

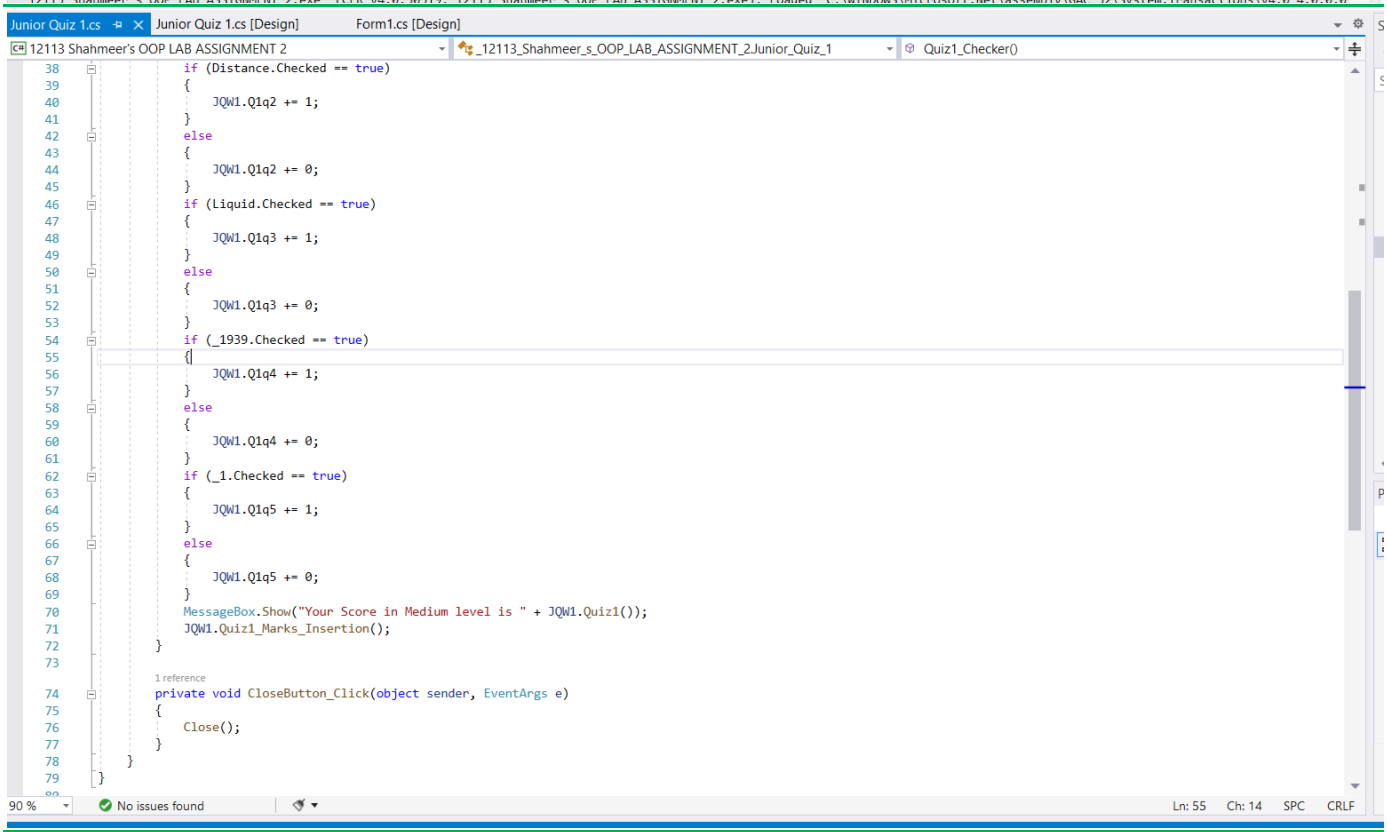
```
namespace _12113_Shahmeer_s_OOP_LAB_ASSIGNMENT_2
{
    public partial class Junior_Quiz_1 : Form
    {
        public Junior_Quiz_1()
        {
            InitializeComponent();
        }

        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]







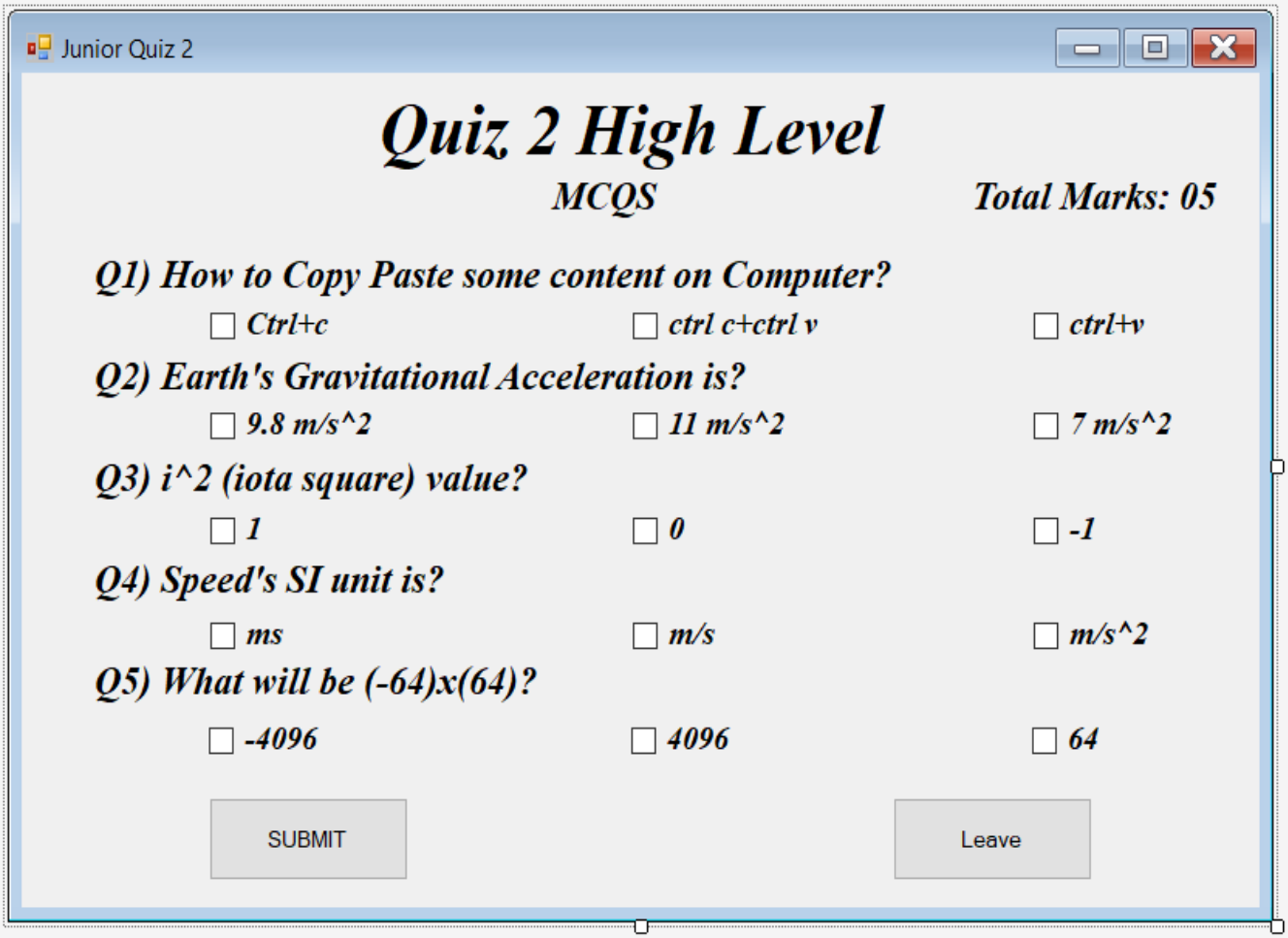
Junior Quiz 2 Form:

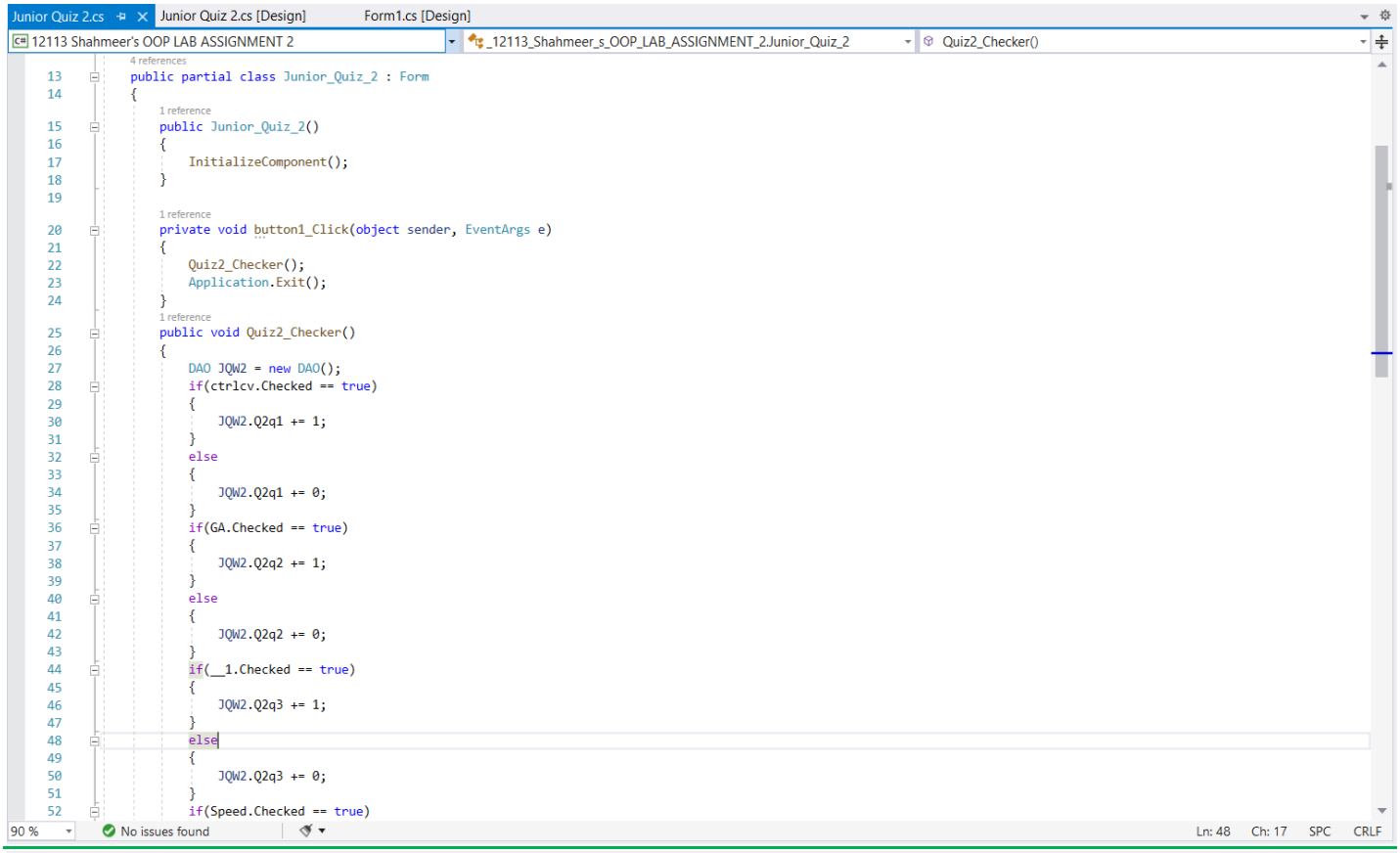
```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
```

```
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_Checker();
            Application.Exit();
        }
        public void Quiz2_Checker()
        {
            DAO JQW2 = new DAO();
            if(ctrlcv.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();
        }
    }
}
```

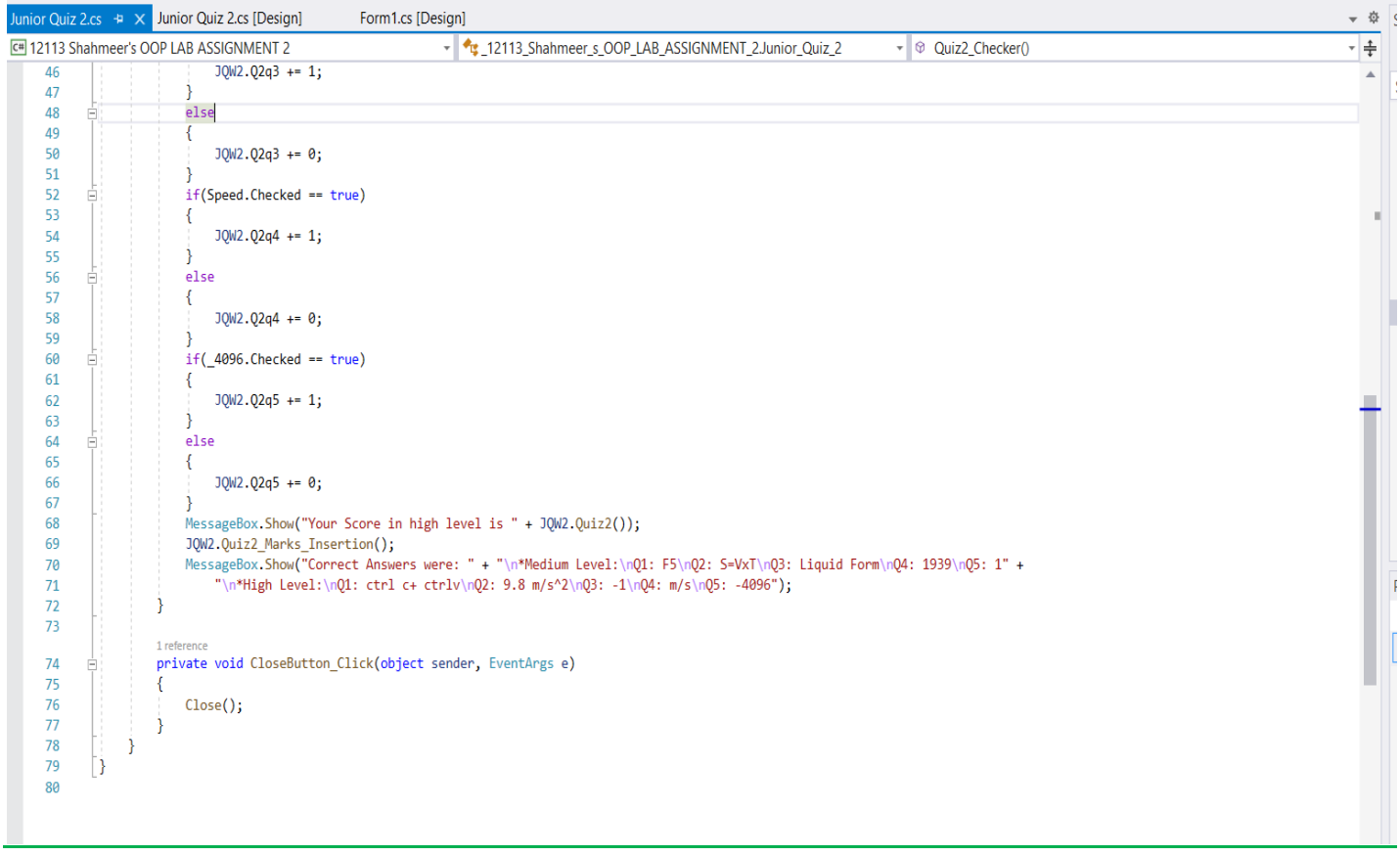
Junior Quiz 2.cs | Junior Quiz 2.cs [Design] | Form1.cs [Design]





```
Junior Quiz 2.cs | Junior Quiz 2.cs [Design] | Form1.cs [Design]
12113 Shahmeer's OOP LAB ASSIGNMENT 2 | _12113_Shahmeer_s_OOP_LAB_ASSIGNMENT_2.Junior_Quiz_2 | Quiz2_Checker()

4 references
public partial class Junior_Quiz_2 : Form
{
    1 reference
    public Junior_Quiz_2()
    {
        InitializeComponent();
    }

    1 reference
    private void button1_Click(object sender, EventArgs e)
    {
        Quiz2_Checker();
        Application.Exit();
    }
    1 reference
    public void Quiz2_Checker()
    {
        DAO JQW2 = new DAO();
        if(ctrlcv.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)
```

90 % | No issues found | Ln: 48 Ch: 17 SPC CRLF



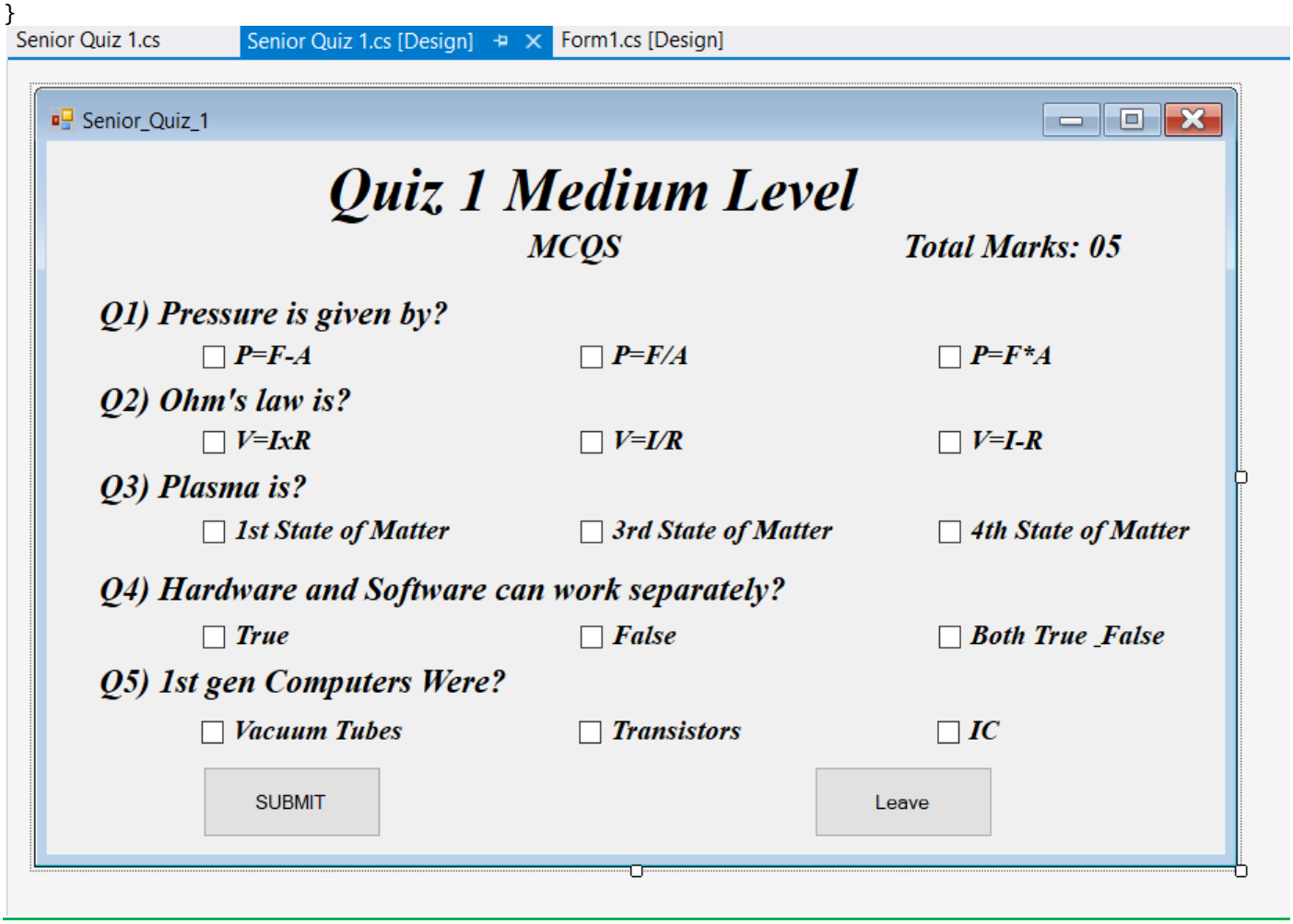
```
Junior Quiz 2.cs | Junior Quiz 2.cs [Design] | Form1.cs [Design]
12113 Shahmeer's OOP LAB ASSIGNMENT 2 | _12113_Shahmeer_s_OOP_LAB_ASSIGNMENT_2.Junior_Quiz_2 | Quiz2_Checker()

            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");
    }

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

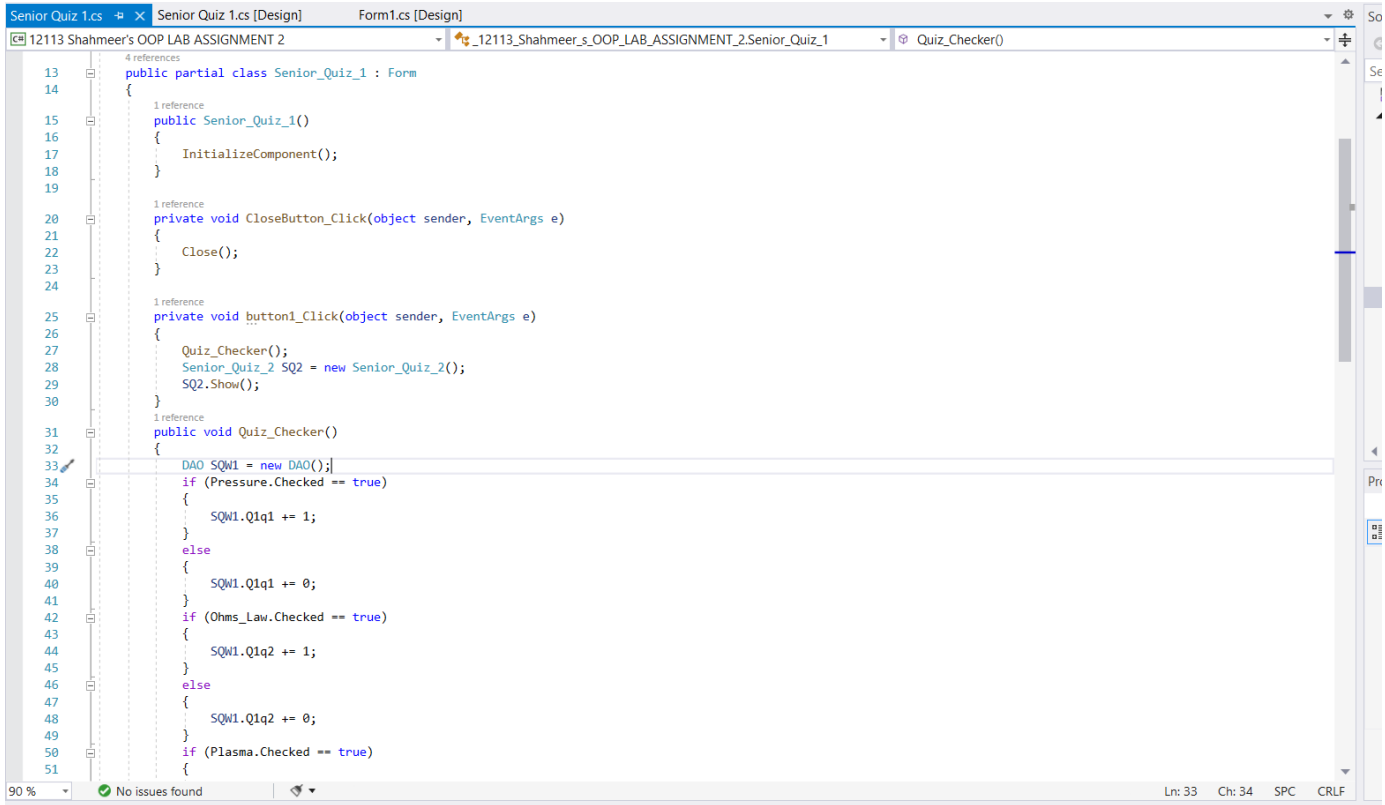
Senior Quiz 1 Form:

```
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;
            }
```

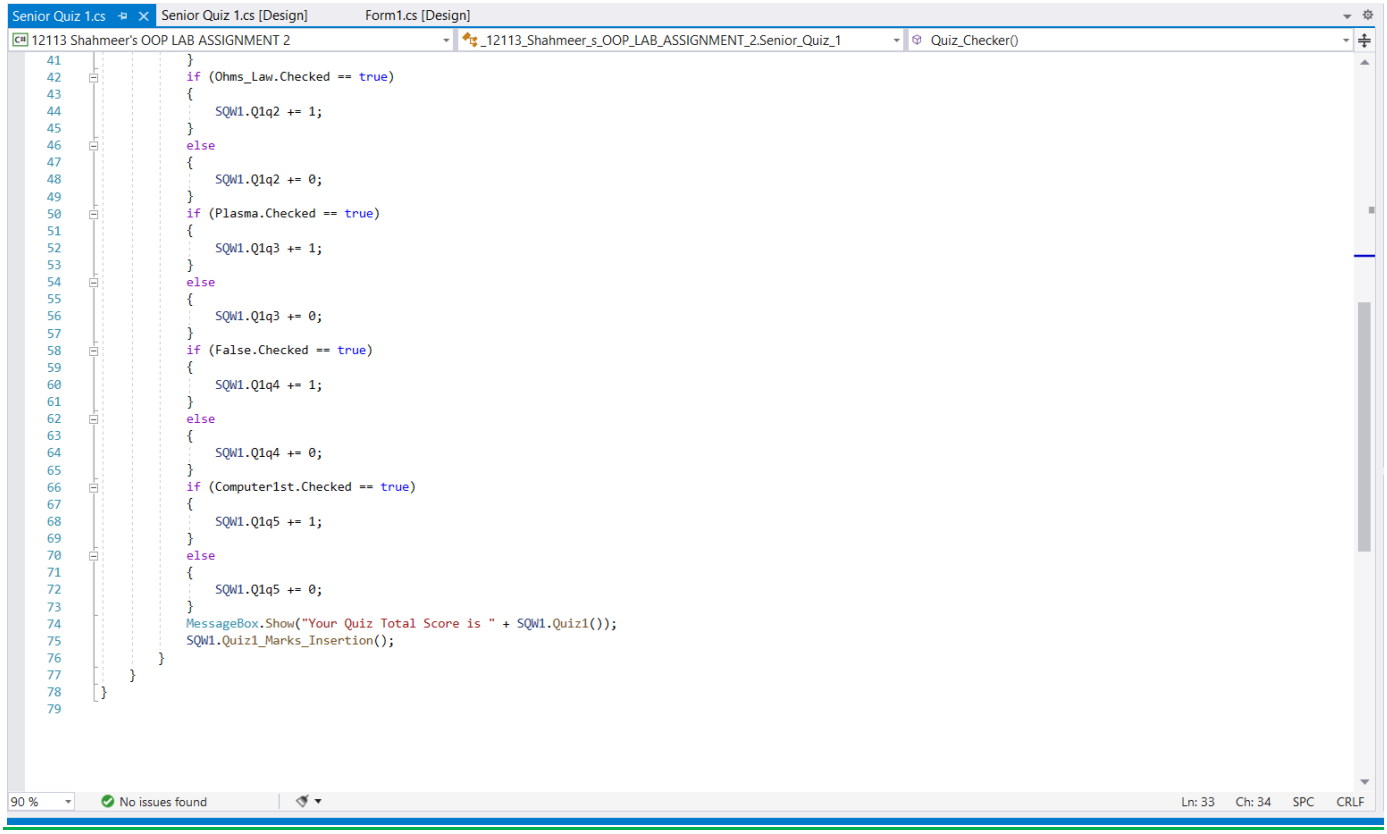
```
            if (False.Checked == true)
            {
                SQW1.Q1q4 += 1;
            }
            else
            {
                SQW1.Q1q4 += 0;
            }
            if (Computer1st.Checked == true)
            {
                SQW1.Q1q5 += 1;
            }
            else
            {
                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.cs | 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()

13      4 references
        public partial class Senior_Quiz_1 : Form
14      {
            1 reference
15          public Senior_Quiz_1()
16          {
17              InitializeComponent();
18          }
19
            1 reference
20          private void CloseButton_Click(object sender, EventArgs e)
21          {
22              Close();
23          }
24
            1 reference
25          private void button1_Click(object sender, EventArgs e)
26          {
27              Quiz_Checker();
28              Senior_Quiz_2 SQ2 = new Senior_Quiz_2();
29              SQ2.Show();
30          }
            1 reference
31          public void Quiz_Checker()
32          {
33              DAO SQW1 = new DAO();
34              if (Pressure.Checked == true)
35              {
36                  SQW1.Q1q1 += 1;
37              }
38              else
39              {
40                  SQW1.Q1q1 += 0;
41              }
42              if (Ohms_Law.Checked == true)
43              {
44                  SQW1.Q1q2 += 1;
45              }
46              else
47              {
48                  SQW1.Q1q2 += 0;
49              }
50              if (Plasma.Checked == true)
51              {

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



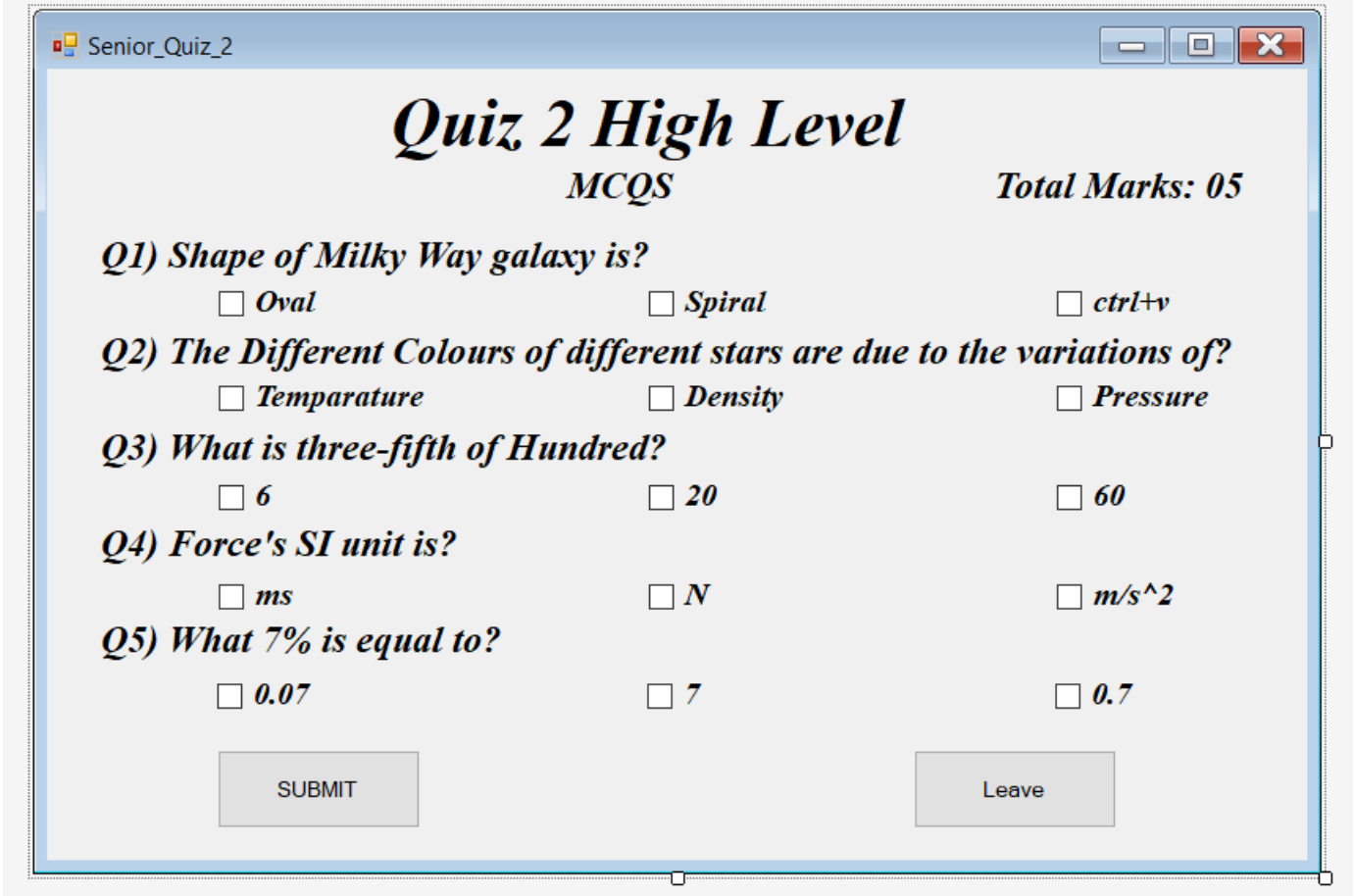
```
Senior Quiz 1.cs | Senior Quiz 1.cs [Design] | Form1.cs [Design]
12113 Shahmeer's OOP LAB ASSIGNMENT 2 | _12113_Shahmeer_s_OOP_LAB_ASSIGNMENT_2.Senior_Quiz_1 | Quiz_Checker()

41              }
42              if (Ohms_Law.Checked == true)
43              {
44                  SQW1.Q1q2 += 1;
45              }
46              else
47              {
48                  SQW1.Q1q2 += 0;
49              }
50              if (Plasma.Checked == true)
51              {
52                  SQW1.Q1q3 += 1;
53              }
54              else
55              {
56                  SQW1.Q1q3 += 0;
57              }
58              if (False.Checked == true)
59              {
60                  SQW1.Q1q4 += 1;
61              }
62              else
63              {
64                  SQW1.Q1q4 += 0;
65              }
66              if (Computer1st.Checked == true)
67              {
68                  SQW1.Q1q5 += 1;
69              }
70              else
71              {
72                  SQW1.Q1q5 += 0;
73              }
74              MessageBox.Show("Your Quiz Total Score is " + SQW1.Quiz1());
75              SQW1.Quiz1_Marks_Insertion();
76          }
77      }
78  }
79

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

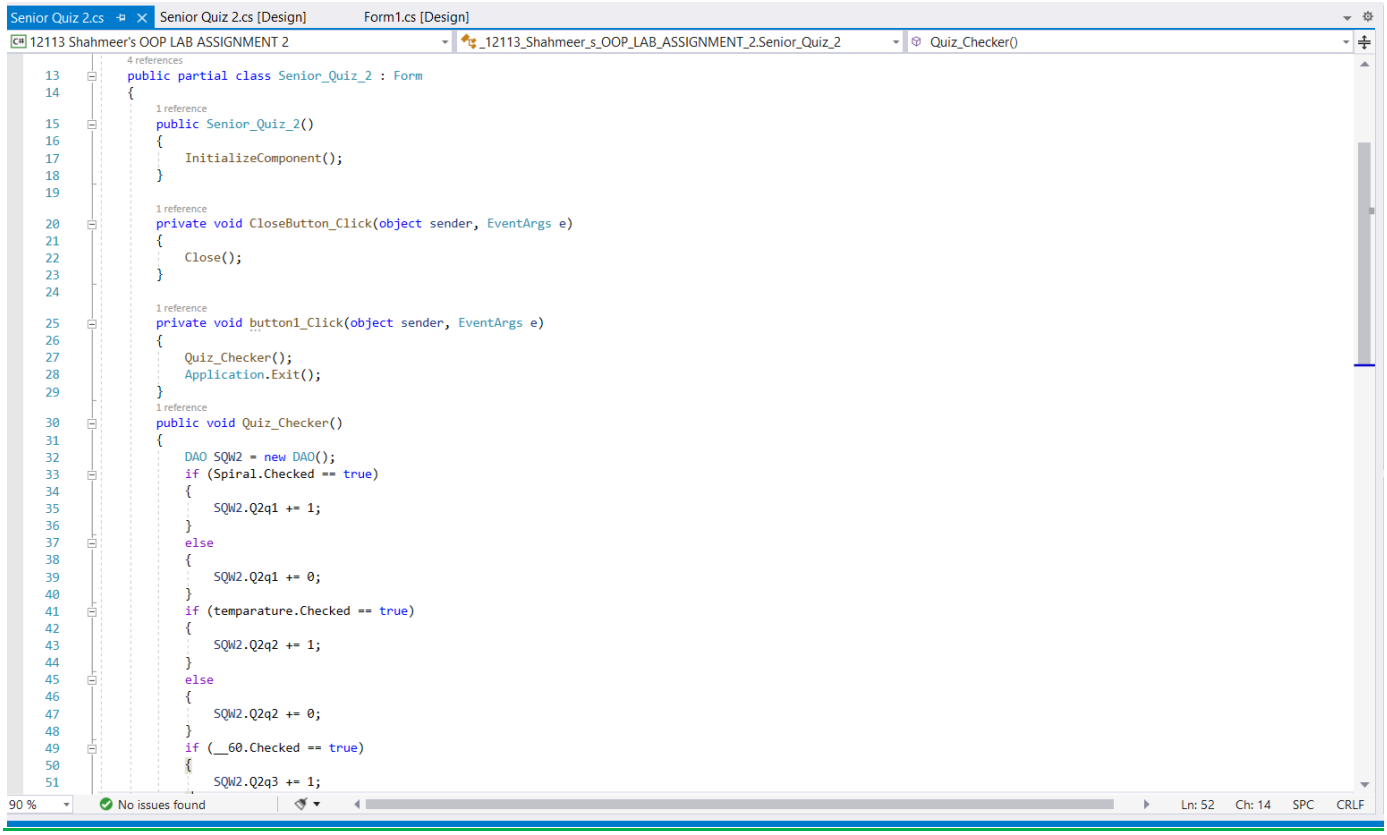
Senior Quiz 2 Form:

```
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)
```

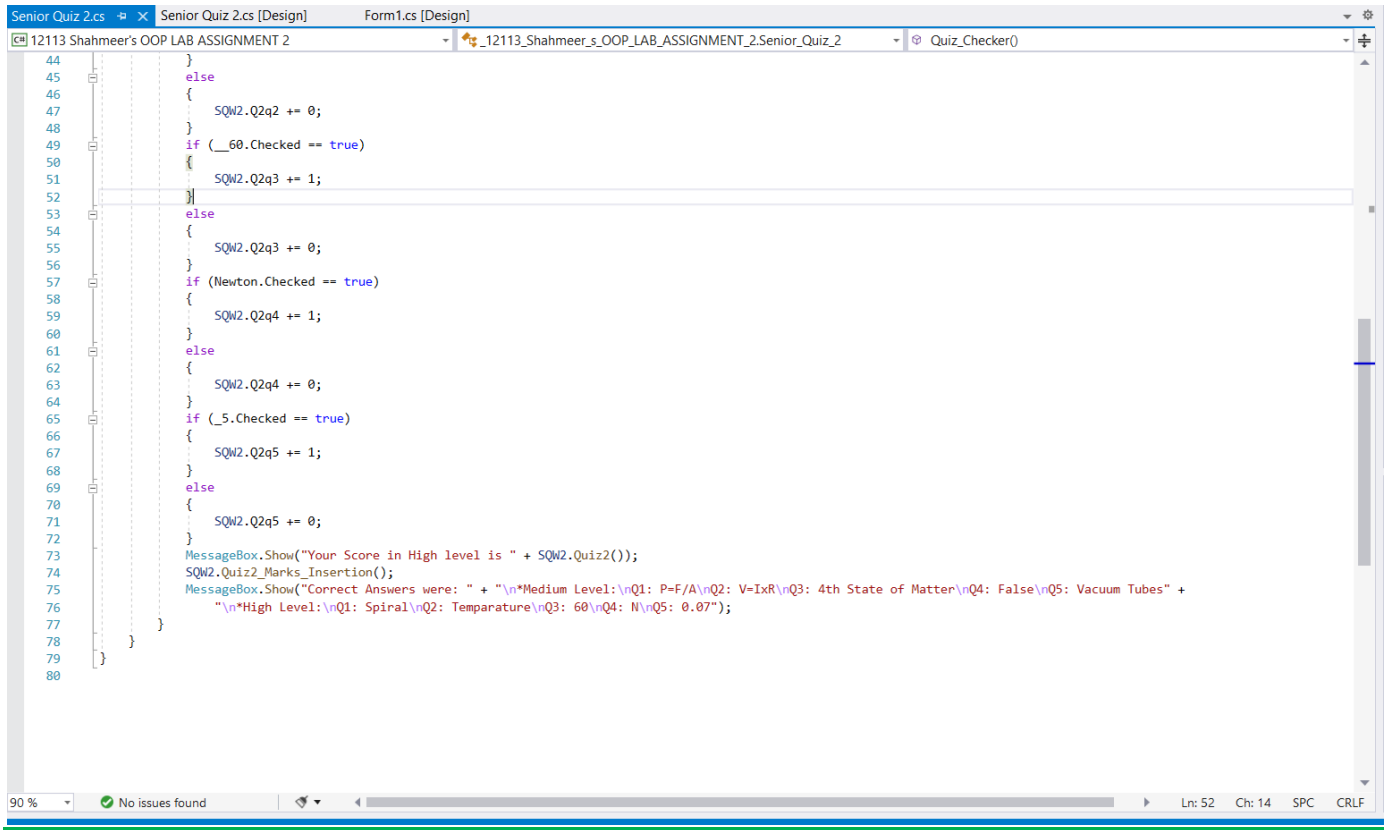
```
            {
                SQW2.Q2q4 += 1;
            }
            else
            {
                SQW2.Q2q4 += 0;
            }
            if (_5.Checked == true)
            {
                SQW2.Q2q5 += 1;
            }
            else
            {
                SQW2.Q2q5 += 0;
            }
            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: Temparature\nQ3: 60\nQ4: N\nQ5: 0.07");
        }
    }
}
```

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





```
Senior Quiz 2.cs | 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
public partial class Senior_Quiz_2 : Form
{
    1 reference
    public Senior_Quiz_2()
    {
        InitializeComponent();
    }

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

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

90 % | No issues found | Ln: 52 Ch: 14 SPC CRLF
```



```
Senior Quiz 2.cs | 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()

        }
        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: Temparature\nQ3: 60\nQ4: N\nQ5: 0.07");
    }
}
}

90 % | No issues found | Ln: 52 Ch: 14 SPC CRLF
```

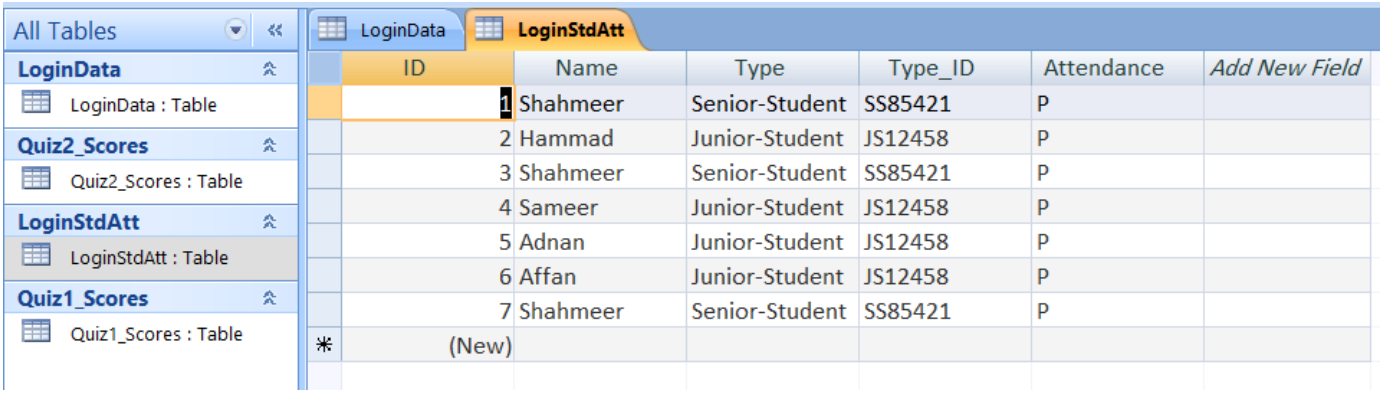
Output:

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……

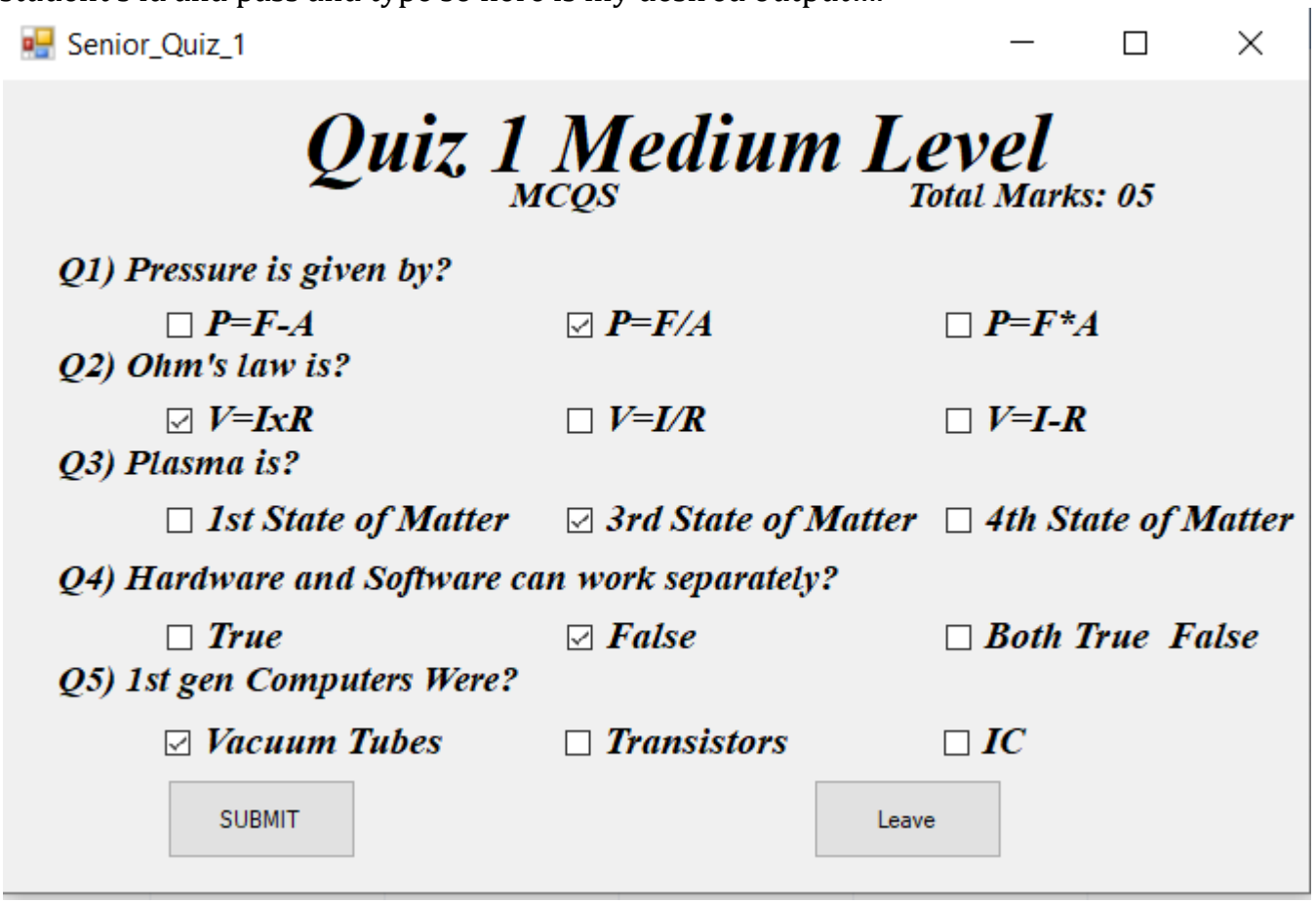
LoginData

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

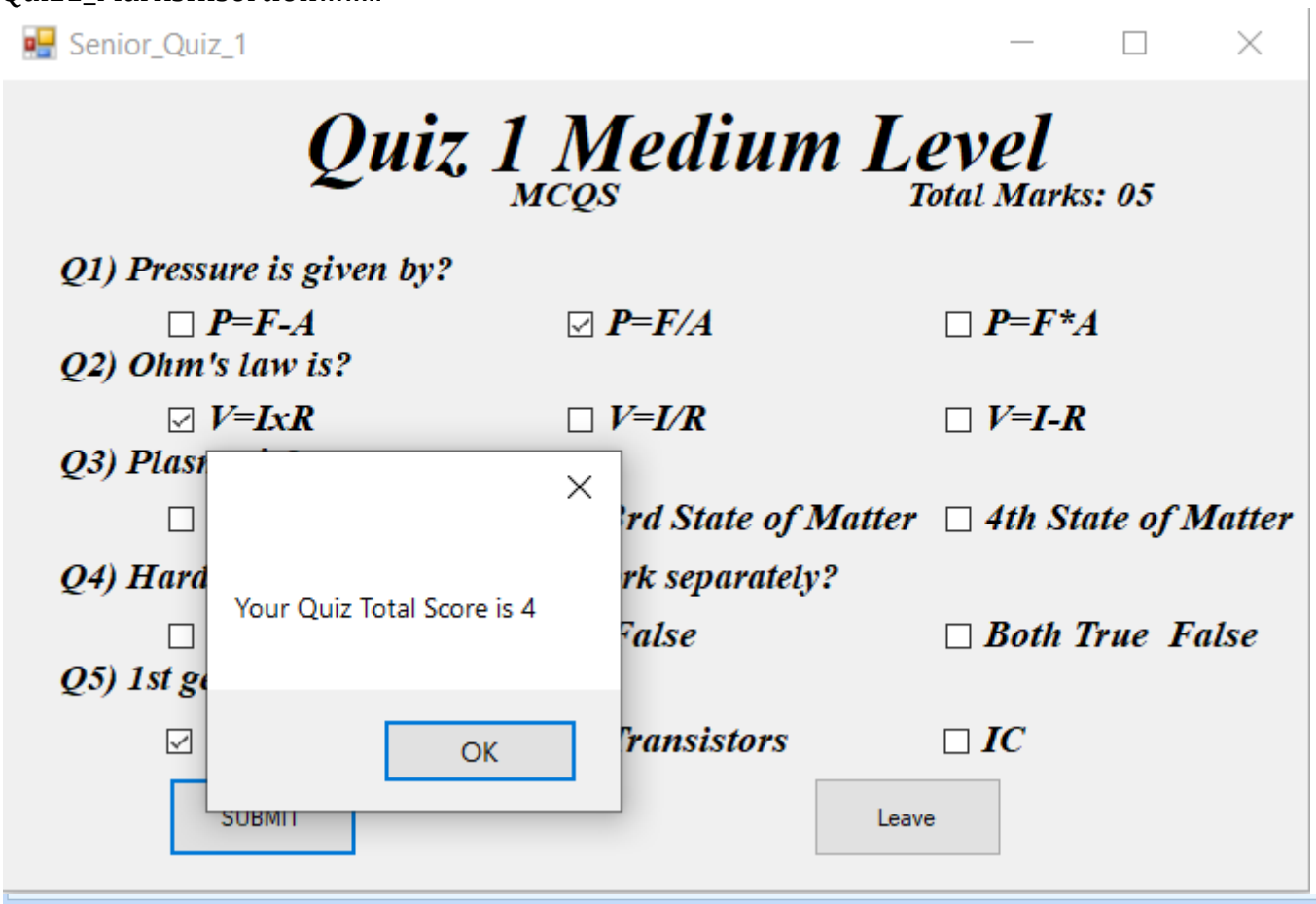
And when we insert the things correctly according to data table and with our name a functioning of marking automatically is also done to mark student's attendance like to check who logged in for the quiz or not so that data insertion is done in this table of data base….

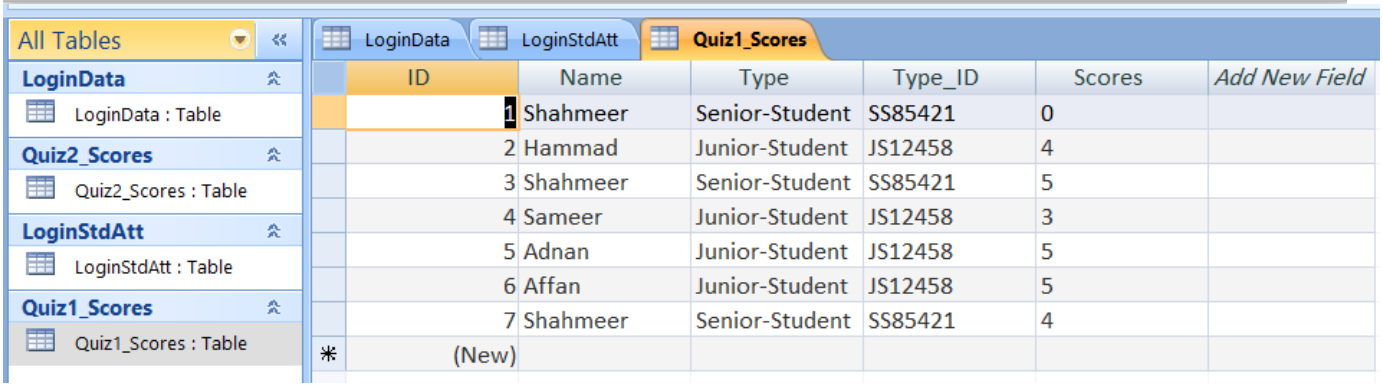


And then the quiz will proceed according to your loggining in data that you entered through the login page if you login with senior student id and password and type then you will be proceeded to senior students quiz thing and I you logins with junior student id and password then you will be proceeded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



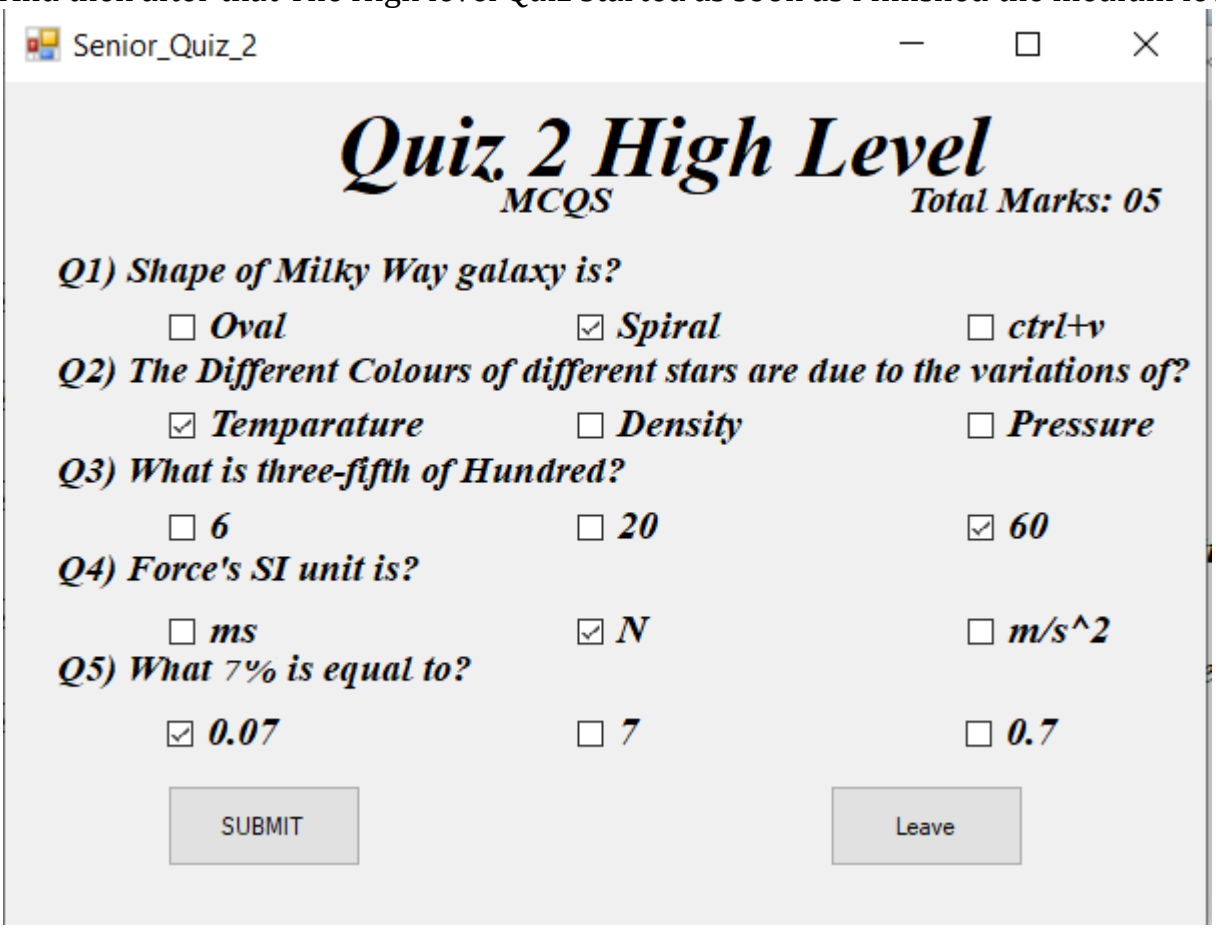
And automatically my score was shown in the messgebox and it also got saved in the database automatically throught the functioning of that dao class int method of Quiz1_MarksInsertion……..

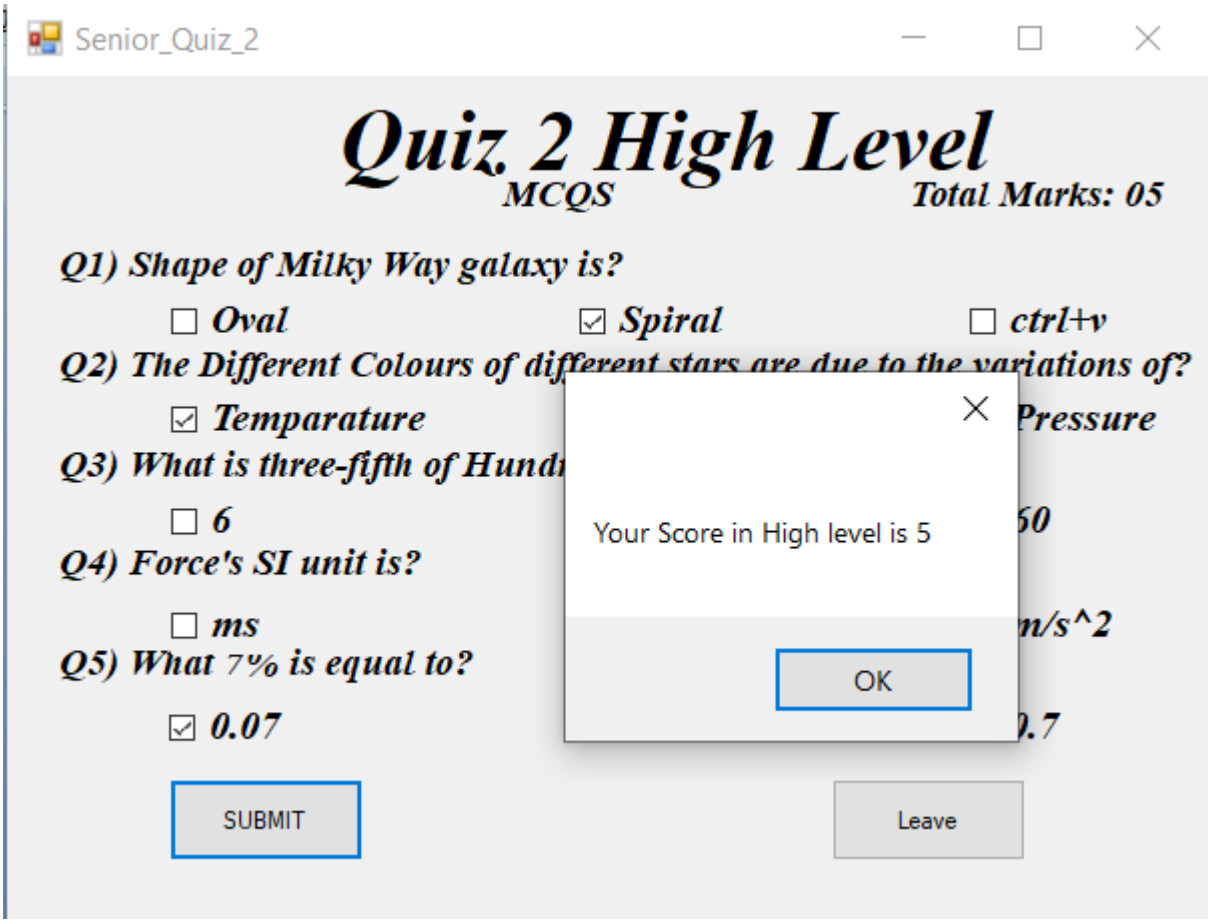




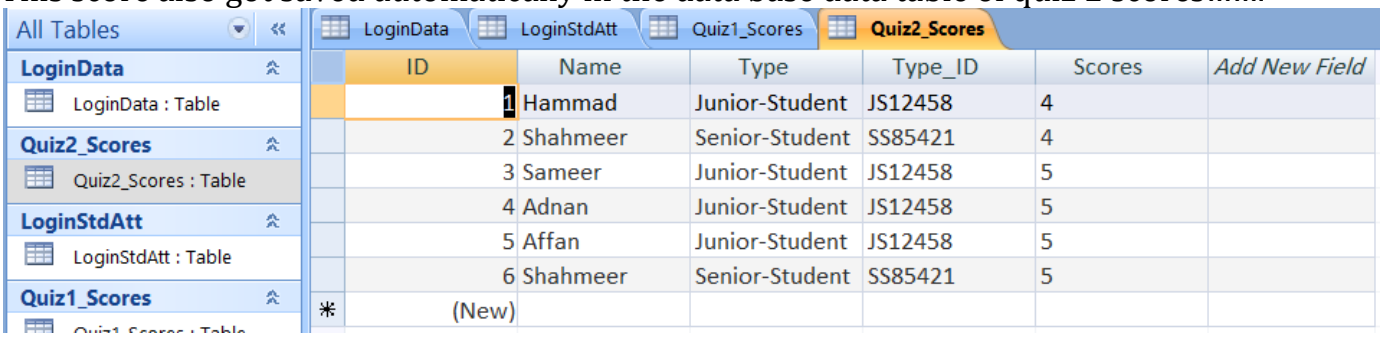
Here on 7th index…..

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



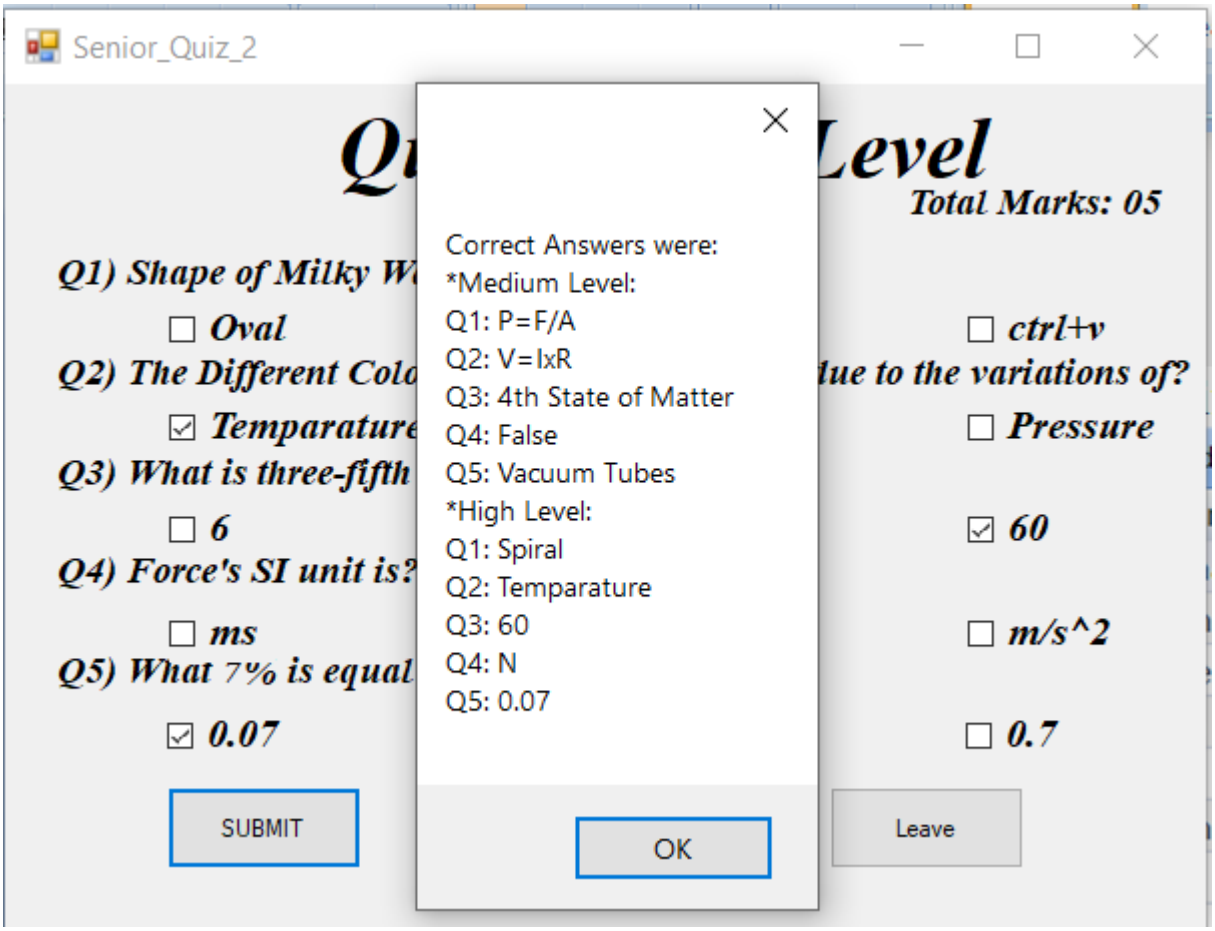


This score also got saved automatically in the data base data table of quiz 2 scores…….



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

Here on the 6th index row……



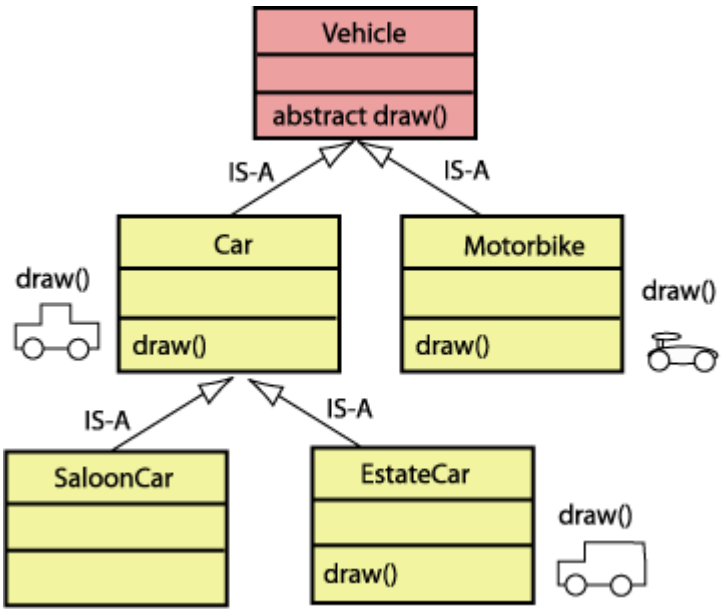
And the correct answers are shown here of both medium and high level quizzes same function will happen if you log's in with junior student's id password and type only your type id and type will be differently saved in the data base as "junior-student" in typ and type id will "JS12458".....

Ms. Yumna Iftikhar

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

Question – 2 [CONSOLE BASED] [5 mark]

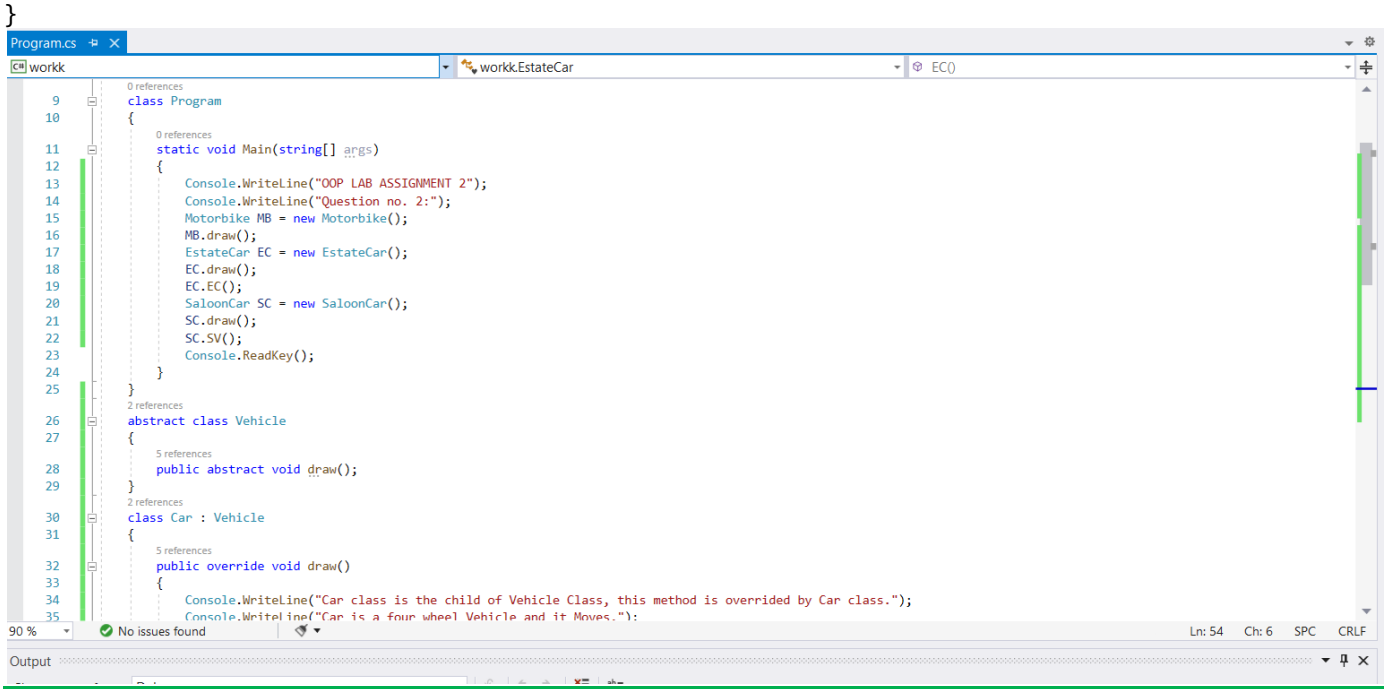
Perform the following question and apply appropriate OOP concept.



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 overrided
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
overrided 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");
        }
    }
}
```



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

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 overrided by MotorBike class.
MotorBike is 2 Wheel Vehicle and it Moves.

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