

# INTERNET TECHNOLOGY LAB

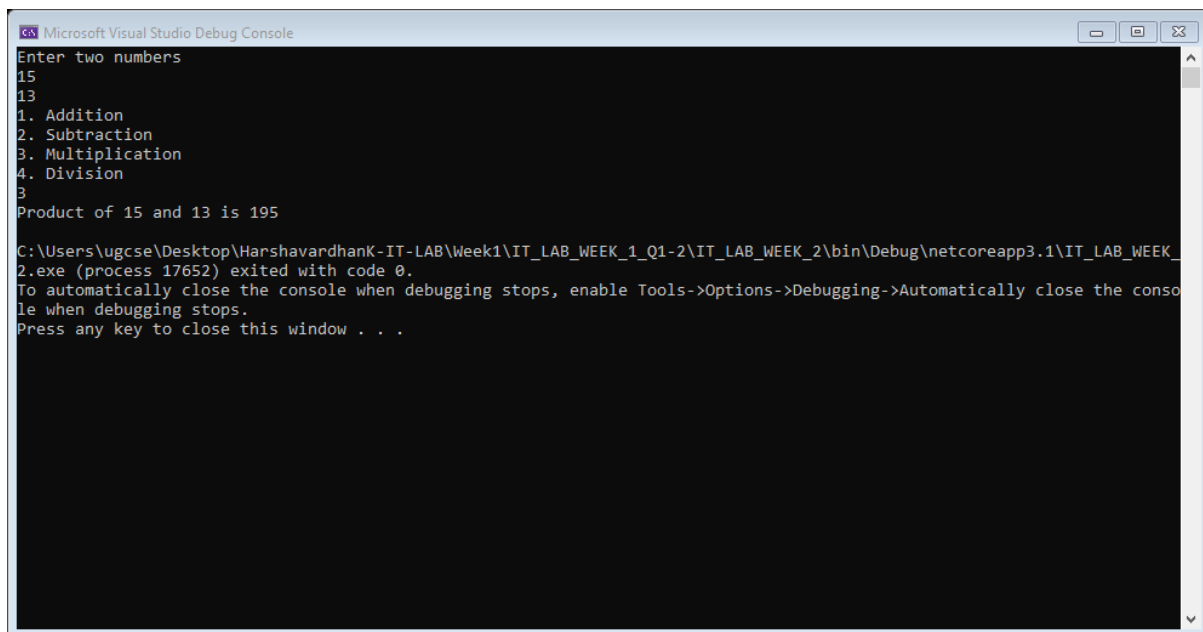
## Week 1

### Question 1

```
namespace IT_LAB_WEEK_1 {  
    class Program {  
  
        public static void arithmetic() {  
            Console.WriteLine("Enter two numbers");  
  
            int num1, num2;  
            int.TryParse(Console.ReadLine(), out num1);  
            int.TryParse(Console.ReadLine(), out num2);  
  
            Console.WriteLine("1. Addition\n2. Subtraction\n3. Multiplication\n4.  
Division");  
            int choice;  
            int.TryParse(Console.ReadLine(), out choice);  
  
            switch(choice) {  
                case 1:  
                    Console.WriteLine("Sum of {0} and {1} is {2}", num1, num2, num1 +  
num2); break;  
                case 2:  
                    Console.WriteLine("Difference of {0} and {1} is {2}", num1, num2,  
num1 - num2); break;  
                case 3:  
                    Console.WriteLine("Product of {0} and {1} is {2}", num1, num2,  
num1 * num2); break;  
                case 4:  
                    Console.WriteLine("Quotient of {0} and {1} is {2}", num1, num2,  
num1 / num2); break;  
                default:  
                    Console.WriteLine("invalid option"); break;  
            }  
        }  
    }  
}
```

```
public static void Main(string[] args) {  
  
    arithmetic();  
  
}  
}
```

## Output



The screenshot shows the Microsoft Visual Studio Debug Console window. The output text is as follows:

```
Microsoft Visual Studio Debug Console  
Enter two numbers  
15  
13  
1. Addition  
2. Subtraction  
3. Multiplication  
4. Division  
3  
Product of 15 and 13 is 195  
C:\Users\ugcse\Desktop\HarshavardhanK-IT-LAB\Week1\IT_LAB_WEEK_1_Q1-2\IT_LAB_WEEK_2\bin\Debug\netcoreapp3.1\IT_LAB_WEEK_2.exe (process 17652) exited with code 0.  
To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the console when debugging stops.  
Press any key to close this window . . .
```

## Question 2

```
using System;

namespace IT_LAB_WEEK_1 {

    class Program {

        static void Main(string[] args)
        {
            Console.WriteLine("Welcome to Date Time Add!");
            Console.WriteLine("Enter date in format: DD:MM:YY:hh:mm:ss");

            String inputDate;
            inputDate = Console.ReadLine();

            Console.WriteLine("Enter number of nano seconds to add:");
            Int64 ticks = Int64.Parse(Console.ReadLine());

            Console.WriteLine("After Adding: " + addTime(inputDate, ticks));
        }

        public static String addTime(String inputDate, Int64 ticks) {

            int DAY = 0;
            int YEAR = 2;
            int SECOND = 5;
            long NANO_TO_SECONDS = 1000000000;

            String[] subStrings = inputDate.Split(':');
            Int64 seconds = (ticks / NANO_TO_SECONDS);
            Int64 carry = seconds;

            String result = "";
            String dayTemp = "";
            Int64 add;

            String temp = subStrings[0];
            subStrings[0] = subStrings[2];
            subStrings[2] = temp;

            Int64[] mods = { 31, 12, 100, 24, 60, 60 };

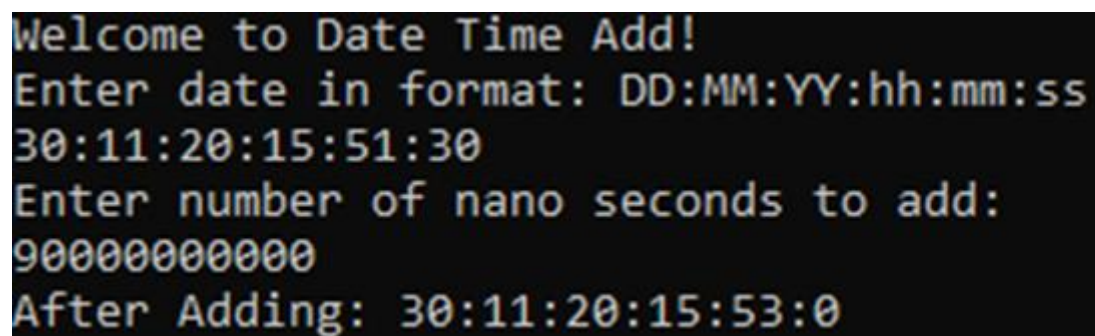
            for (int i = SECOND; i >= DAY; i--)
            {
                add = (carry + Int64.Parse(subStrings[i])) % mods[i];
                carry = (carry + Int64.Parse(subStrings[i])) / mods[i];

                if (i > YEAR)
                    result = ":" + (add + result);
                else if (i != DAY)
                    dayTemp += ((add) + ":");
                else

```

```
        dayTemp += (add);  
    }  
  
    result = (dayTemp + result);  
    return result;  
  
    }  
}
```

#### Output



```
Welcome to Date Time Add!  
Enter date in format: DD:MM:YY:hh:mm:ss  
30:11:20:15:51:30  
Enter number of nano seconds to add:  
900000000000  
After Adding: 30:11:20:15:53:0
```

### Question 3

```
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 IT_LAB_WEEK_1_WINFORMS
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }

        private void button1_Click(object sender, EventArgs args)
        {
            Int64 salary = Int64.Parse(salaryTextbox.Text);
            int position = comboBox1.SelectedIndex;

            double bonus;

            Console.WriteLine("hello");

            if (position == 0)
            {
                bonus = (0.1 * salary);
            }
            else if (position >= 1 && position < 4)
            {
                bonus = (0.09 * salary);
            }
            else if (position >= 4 && position < 7)
            {
                bonus = (0.07 * salary);
            }
            else
            {
                bonus = (0.05 * salary);
            }

            bonusLabel.Text = bonus.ToString("0.##");
            salaryLabel.Text = "hello";
        }

        private void button1_MouseClick(object sender, MouseEventArgs e)
        {
            Int64 salary = Int64.Parse(salaryTextbox.Text);
            int position = comboBox1.SelectedIndex;

            double bonus;

            Console.WriteLine("hello");
        }
    }
}
```

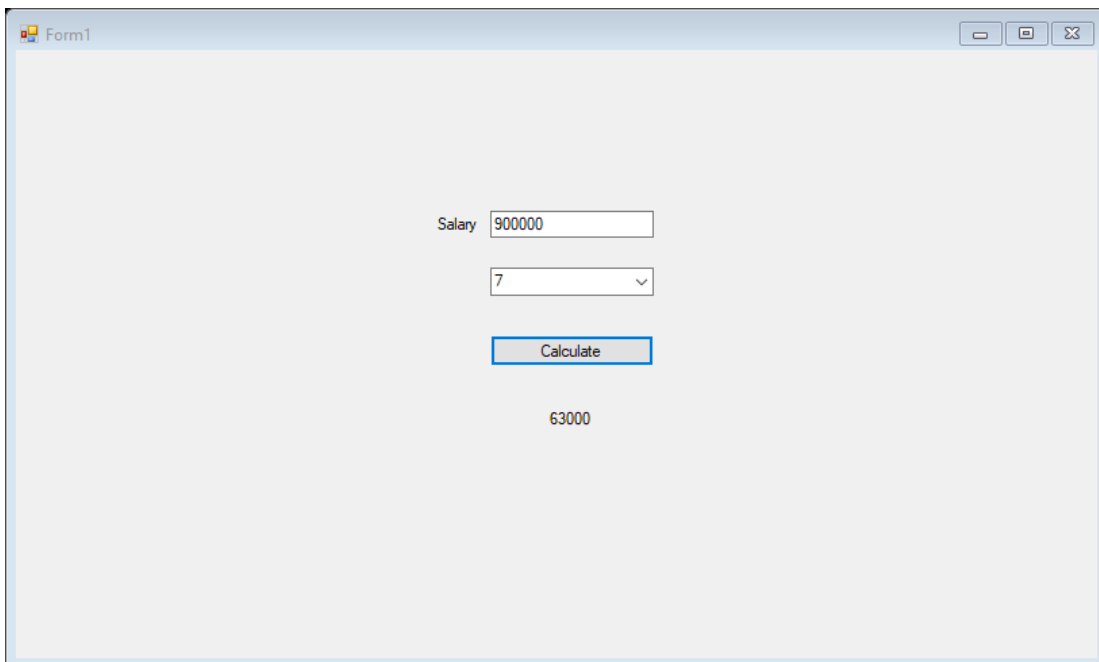
```

        if (position == 0)
        {
            bonus = (0.1 * salary);
        }
        else if (position >= 1 && position < 4)
        {
            bonus = (0.09 * salary);
        }
        else if (position >= 4 && position < 7)
        {
            bonus = (0.07 * salary);
        }
        else
        {
            bonus = (0.05 * salary);
        }

        bonusLabel1.Text = bonus.ToString();
    }
}

```

## Output



The screenshot shows a Windows application window titled "Form1". Inside the window, there is a user interface for calculating a bonus based on salary and position. It includes a text box labeled "Salary" with the value "900000", a dropdown menu for "position" currently showing "7", and a "Calculate" button. Below the button, the calculated bonus value "63000" is displayed.

#### Question 4

```
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 Car_Purchase
{
    public partial class Form1 : Form
    {
        public static String[] toyota = {"Corolla", "Yaris", "Innova", "Fortuner"};
        public static String[] toyotaPrices = { "900000", "1700000", "2100000",
"3500000" };

        public static String[] marutiSuzuki = {"Baleno", "Swift", "Dezire"};
        public static String[] suzukiPrices = { "1200000", "1000000", "875000" };

        public static String[] hyundai = {"Grand i10", "i20 Asta", "i30"};
        public static String[] hyundaiPrices = { "870000", "1100000", "2000000" };

        public static String[] kia = {"Sonet", "Seltos"};
        public static String[] kiaPrices = { "1250000", "2100000"};

        public Form1()
        {
            InitializeComponent();
        }

        public void comboBox1_SelectedIndexChanged(Object observer, EventArgs e)
        {
            switch(comboBox1.SelectedIndex)
            {
                case 0:
                    listBox1.Items.Clear();
                    listBox1.Items.AddRange(marutiSuzuki);
                    break;

                case 1:
                    listBox1.Items.Clear();
                    listBox1.Items.AddRange(hyundai); break;

                case 2:
                    listBox1.Items.Clear();
                    listBox1.Items.AddRange(kia);break;

                case 3:
                    listBox1.Items.Clear();
                    listBox1.Items.AddRange(toyota); break;
            }
        }

        public void listBox1_SelectedIndexChanged(Object observer, EventArgs e)
```

```

{
    String price;

    switch (comboBox1.SelectedIndex)
    {
        case 0:
            price = suzukiPrices[listBox1.SelectedIndex];
            break;

        case 1:
            price = hyundaiPrices[listBox1.SelectedIndex];
            break;

        case 2:
            price = kiaPrices[listBox1.SelectedIndex];
            break;

        case 3:
            price = toyotaPrices[listBox1.SelectedIndex];
            break;

        default:
            price = "0";
            break;
    }

    label2.Text = price;
}

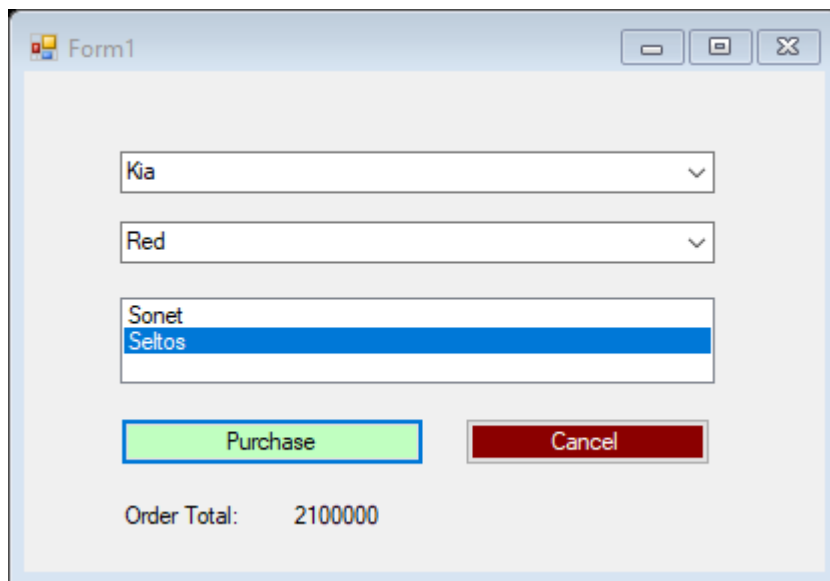
public void button1_Click(Object observer, EventArgs e)
{
    MessageBox.Show("Thank you for Purchasing " + comboBox1.Text + " " +
listBox1.SelectedItem);
}

public void button2_Click(Object observer, EventArgs e)
{
    comboBox2.SelectedIndex = 0;
    comboBox1.SelectedIndex = 0;
    listBox1.SelectedIndex = 0;
    label2.Text = "Uncalculated";
    MessageBox.Show("Selections Reset");
}
}

```



## Output



The screenshot shows a Windows application window titled "Form1". Inside the window, there are three dropdown menus. The first dropdown menu has "Kia" selected. The second dropdown menu has "Red" selected. The third dropdown menu has a list of car models: "Sonet" and "Seltos", with "Seltos" currently selected and highlighted in blue. Below the dropdown menus, there are two buttons: a green "Purchase" button and a red "Cancel" button. At the bottom left of the form, the text "Order Total: 2100000" is displayed.

Brand	Color	Model
Kia	Red	Seltos

Order Total: 2100000