

Final Slips for practical exam 1,2,3,4,7,9,10,11,16,17,18,19,20

Slip No.4

Q.1] Write a C# program to check whether the given string is a palindrome or not.
using System;

```
class Program
{
    static void Main()
    {
        Console.Write("Enter a string: ");
        string str = Console.ReadLine();

        string reversed = "";
        for (int i = str.Length - 1; i >= 0; i--)
            reversed += str[i];

        if (str == reversed)
            Console.WriteLine("Palindrome");
        else
            Console.WriteLine("Not a palindrome");
    }
}
```

Q.2] Write a C# program which will ask the user to input **his name and a message** and perform the following operations:

1. Display their concatenation on the label.
2. To change the format of the label using checkboxes bold, underlined and italic.
3. To change the colour of label (background and foreground) using colour dialog control.

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

```
namespace LabelFormattingApp
```

```
{  
    public partial class Form1 : Form  
    {  
        public Form1()  
        {  
            InitializeComponent();  
        }  
  
        private void btnShow_Click(object sender, EventArgs e)  
        {  
            // 1. Concatenate name and message  
            lblDisplay.Text = txtName.Text + " " + txtMessage.Text;  
  
            // 2. Change font style  
            FontStyle style = FontStyle.Regular;  
            if (chkBold.Checked) style |= FontStyle.Bold;  
            if (chkItalic.Checked) style |= FontStyle.Italic;  
            if (chkUnderline.Checked) style |= FontStyle.Underline;  
  
            lblDisplay.Font = new Font(lblDisplay.Font, style);  
        }  
  
        private void btnForeColor_Click(object sender, EventArgs e)  
        {  
            if (colorDialog1.ShowDialog() == DialogResult.OK)  
                lblDisplay.ForeColor = colorDialog1.Color;  
        }  
  
        private void btnBackColor_Click(object sender, EventArgs e)  
        {  
            if (colorDialog1.ShowDialog() == DialogResult.OK)
```

```

        lblDisplay.BackColor = colorDialog1.Color;
    }
}

}



- o Two TextBox controls (txtName, txtMessage)
- o A Label (lblDisplay)
- o Three CheckBox controls (chkBold, chkItalic, chkUnderline)
- o Two Button controls (btnForeColor, btnBackColor)
- o A Button (btnShow)
- o A ColorDialog (colorDialog1).

```

Slip No. 10

Q1. Write a C# program to check whether given number is Armstrong or not.

```

using System;

class Program
{
    static void Main()
    {
        int n, r, sum = 0;

        Console.Write("Enter number: ");

        n = int.Parse(Console.ReadLine());

        int temp = n;

        while (temp > 0)
        {
            r = temp % 10;

            sum = sum + (r * r * r); // works for 3-digit Armstrong numbers

            temp = temp / 10;
        }
    }
}

```

```

    }

    if (sum == n)
        Console.WriteLine("Armstrong number");

    else
        Console.WriteLine("Not an Armstrong number");

}
}

```

Q2. Write a C# program that accepts a number from a user in the textbox. Check whether the number is palindrome or not. Display the message accordingly on the label when the user click on the button.

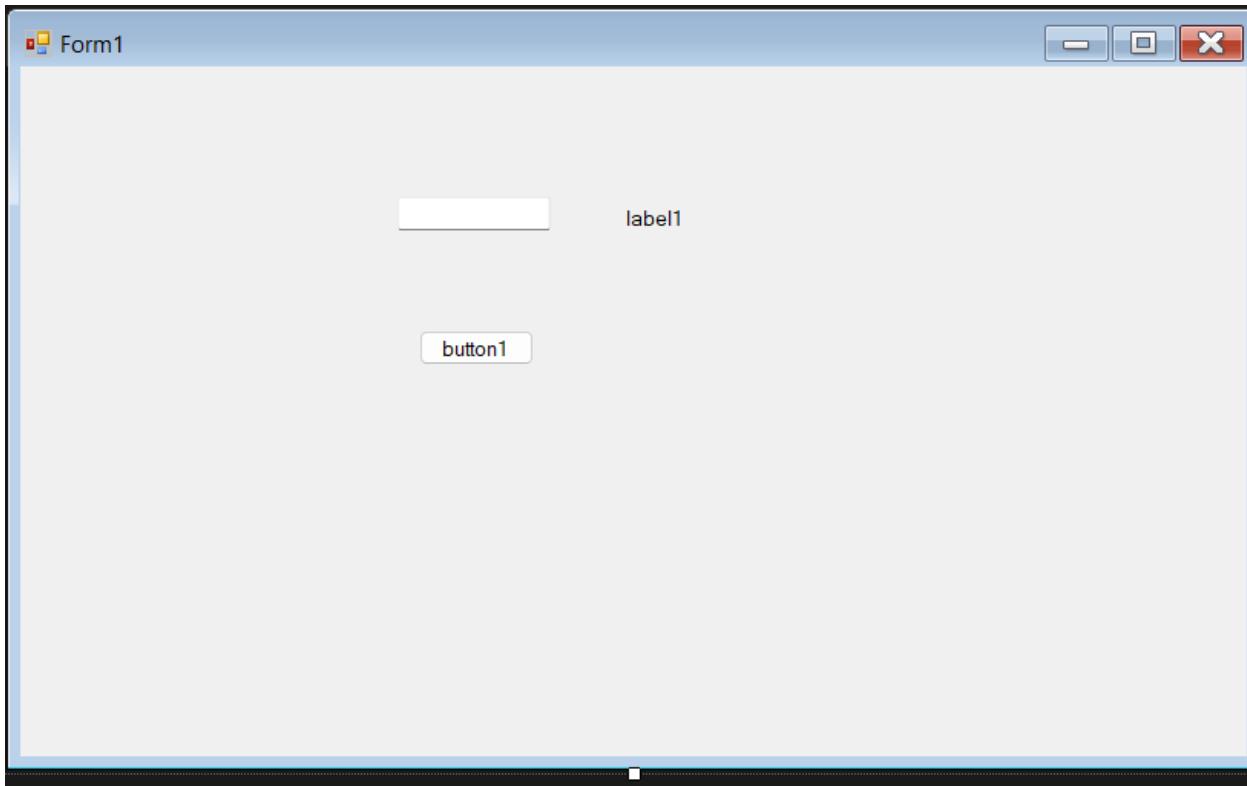
```

private void button1_Click(object sender, EventArgs e){
    string input = textBox1.Text;
    string reversed = "";

    // Reverse the string
    for (int i = input.Length - 1; i >= 0; i--)
    {
        reversed += input[i];
    }

    // Check palindrome
    if (input == reversed)
    {
        label1.Text = "Number is a Palindrome";
    }
    else
    {
        label1.Text = "Number is NOT a Palindrome";
    }
}

```



Slip No. 19

Q1. Write a C# program to display all the prime numbers between 1 to 100 on the label.

```
private void button1_Click(object sender, EventArgs e)
```

```
{
```

```
    string primes = "";
```

```
    for (int num = 2; num <= 100; num++)
```

```
{
```

```
    bool isPrime = true;
```

```
    for (int i = 2; i <= Math.Sqrt(num); i++)
```

```
{
```

```
    if (num % i == 0)
```

```
{
```

```
        isPrime = false;
```

```
        break;
```

```
}
```

```
}
```

```
    if (isPrime)
```

```
{
```

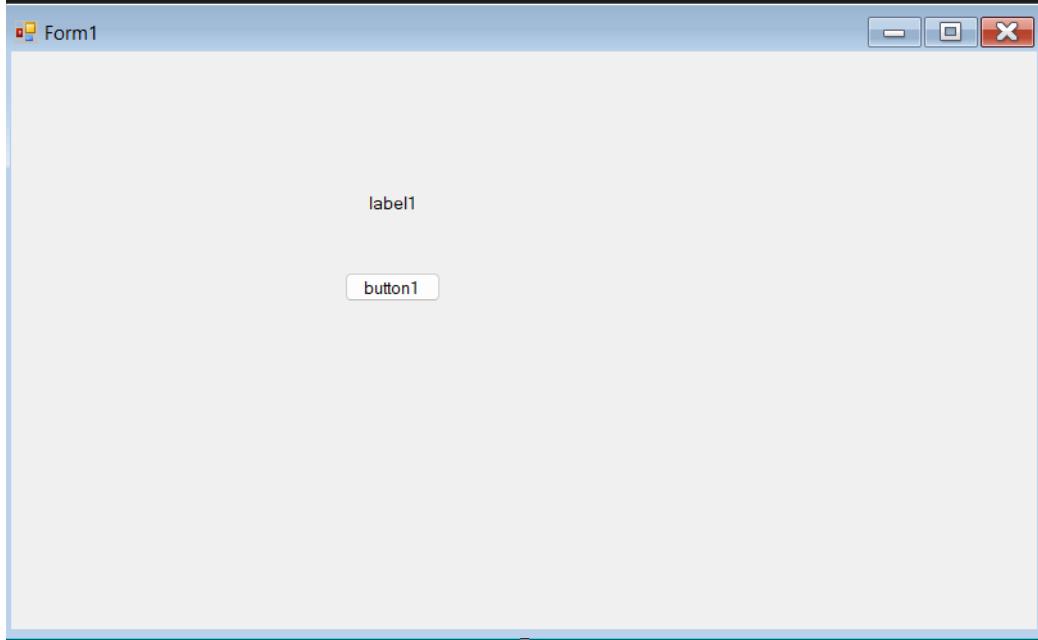
```
        primes += num + " ";
```

```

        }
    }

    label1.Text = primes;
}

```



Slip No. 17

Q2. Write a C# program to accept two 3 X 3 matrix from a user and calculate their multiplication.

```
using System;
```

```
class Program
```

```
{
```

```
    static void Main()
```

```
{
```

```
    int[,] A = new int[3, 3];
```

```
    int[,] B = new int[3, 3];
```

```
    int[,] C = new int[3, 3];
```

```
    Console.WriteLine("Enter Matrix A (3x3):");
```

```
    for (int i = 0; i < 3; i++)
```

```
        for (int j = 0; j < 3; j++)
```

```
            A[i, j] = int.Parse(Console.ReadLine());
```

```
    Console.WriteLine("Enter Matrix B (3x3):");
```

```
    for (int i = 0; i < 3; i++)
```

```
        for (int j = 0; j < 3; j++)
```

```
            B[i, j] = int.Parse(Console.ReadLine());
```

```

// Multiply matrices
for (int i = 0; i < 3; i++)
    for (int j = 0; j < 3; j++)
        for (int k = 0; k < 3; k++)
            C[i, j] += A[i, k] * B[k, j];

Console.WriteLine("\nResult Matrix:");
for (int i = 0; i < 3; i++)
{
    for (int j = 0; j < 3; j++)
        Console.Write(C[i, j] + "\t");
    Console.WriteLine();
}
}

```

Slip No. 18

Q2. Write a C# program to display multiplication table of a given number into the ListBox.

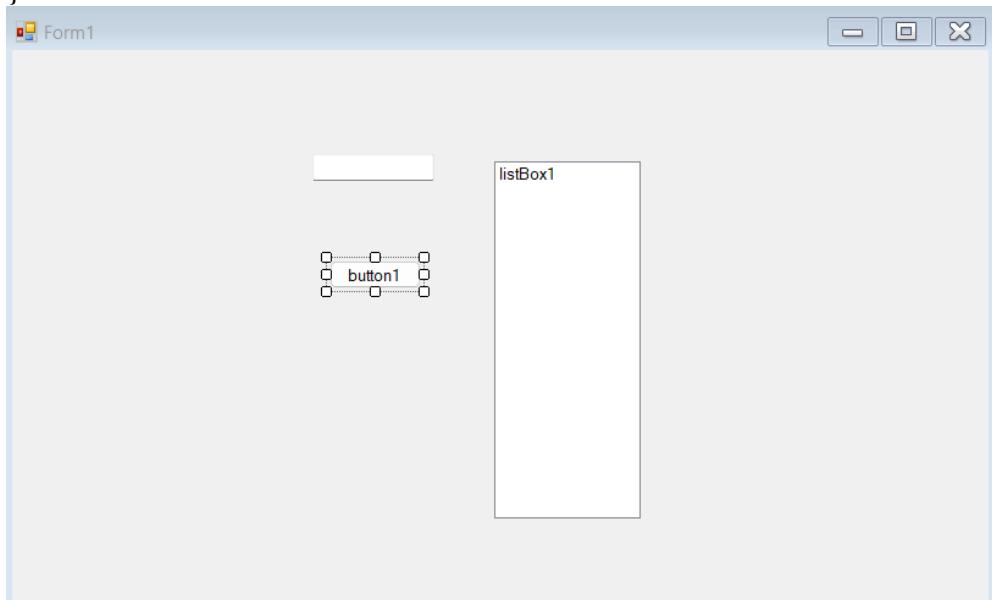
```

private void button1_Click(object sender, EventArgs e)
{
    listBox1.Items.Clear();

    int num = int.Parse(textBox1.Text);

    for (int i = 1; i <= 10; i++)
    {
        listBox1.Items.Add($"{num} x {i} = {num * i}");
    }
}

```



Slip No. 19

Q1. Write a C# program to display all the prime numbers between 1 to 100 on the label.

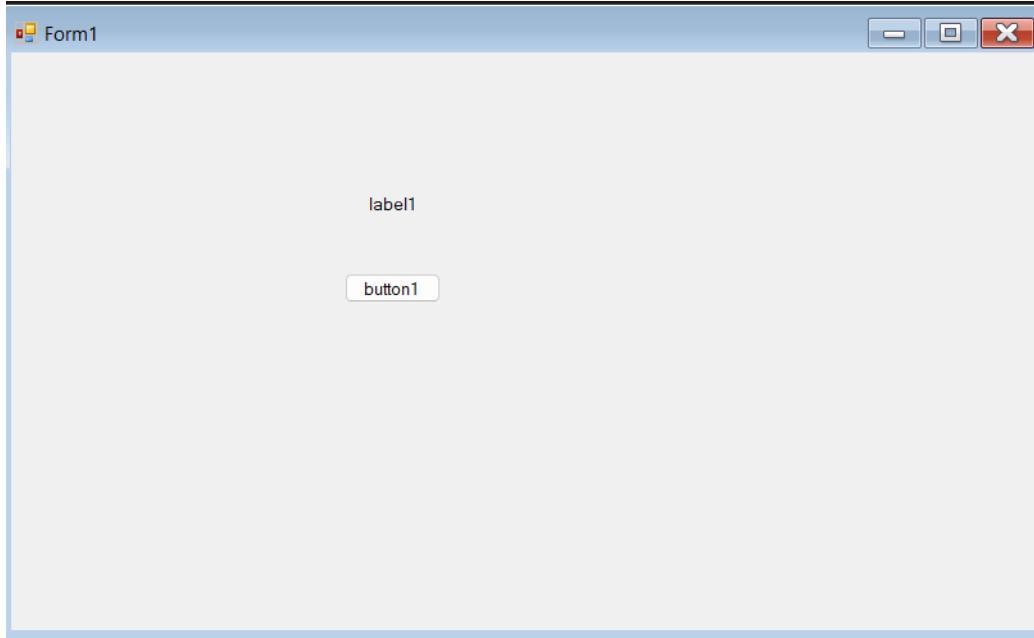
```
private void button1_Click(object sender, EventArgs e)
{
    string primes = "";

    for (int num = 2; num <= 100; num++)
    {
        bool isPrime = true;

        for (int i = 2; i <= Math.Sqrt(num); i++)
        {
            if (num % i == 0)
            {
                isPrime = false;
                break;
            }
        }

        if (isPrime)
        {
            primes += num + " ";
        }
    }

    label1.Text = primes;
}
```



Slip No. 20

Q1. Write a C# program to Display all perfect numbers between 1 to 100.

```
using System;
class Program
{
    static void Main()
    {
        Console.WriteLine("Perfect numbers between 1 and 100:");

        for (int num = 1; num <= 100; num++)
        {
            int sum = 0;
            for (int i = 1; i < num; i++)
            {
                if (num % i == 0)
                    sum += i;
            }

            if (sum == num)
                Console.WriteLine(num);
        }
    }
}
```

Slip No.7

Q1. Write a C# program to accept M x N matrix and perform the following operations:

1. Addition
2. Transpose

using System;

```
class Program
{
    static void Main()
    {
        Console.Write("Enter number of rows: ");
        int m = int.Parse(Console.ReadLine());
        Console.Write("Enter number of columns: ");
        int n = int.Parse(Console.ReadLine());

        int[,] matrix = new int[m, n];
        int sum = 0;

        // Input matrix elements and calculate sum
        Console.WriteLine("Enter matrix elements:");
        for (int i = 0; i < m; i++)
        {
            for (int j = 0; j < n; j++)
            {
                matrix[i, j] = int.Parse(Console.ReadLine());
                sum += matrix[i, j];
            }
        }
    }
}
```

```
{  
    matrix[i, j] = int.Parse(Console.ReadLine());  
    sum += matrix[i, j];  
}  
  
Console.WriteLine("\nSum of all elements: " + sum);  
  
// Display transpose  
Console.WriteLine("\nTranspose of the matrix:");  
for (int j = 0; j < n; j++)  
{  
    for (int i = 0; i < m; i++)  
        Console.Write(matrix[i, j] + " ");  
    Console.WriteLine();  
}  
}
```