

C# LAB 03

1.

```
using System;

public class Program
{
    public static void Main(string[] args)
    {
        // Declare a variable to store the user input number.
        int number;

        // Prompt the user to enter a number.
        Console.WriteLine("Enter a number: ");
        number = Convert.ToInt32(Console.ReadLine());

        // Check if the number is even or odd.
        if (number % 2 == 0)
        {
            Console.WriteLine("The number is even.");
        }
        else
        {
            Console.WriteLine("The number is odd.");
        }
    }
}
```

2.

```
using System;

public class Program
{
    public static void Main(string[] args)
```

```

{
    // Declare a variable to store the user input string.
    string stringInput;

    // Prompt the user to enter a string.
    Console.WriteLine("Enter a string: ");
    stringInput = Console.ReadLine();

    // Declare a variable to store the number of vowels.
    int vowelCount = 0;

    // Declare a set to store the vowels.
    string vowels = "aeiouAEIOU";

    // Iterate over the string and check if each character is a vowel.
    for (int i = 0; i < stringInput.Length; i++)
    {
        if (vowels.Contains(stringInput[i]))
        {
            vowelCount++;
        }
    }

    // Display the number of vowels.
    Console.WriteLine("The number of vowels in the string is {0}.", vowelCount);
}
}

```

3.

```

using System;

public class Program
{
    public static void Main(string[] args)
    {
        // Declare a variable to store the user input number.
        int number;
    }
}

```

```

    // Prompt the user to enter a number.
    Console.WriteLine("Enter a number: ");
    number = Convert.ToInt32(Console.ReadLine());

    // Initialize a variable to store the sum of the digits.
    int sum = 0;

    // Iterate over the number and add each digit to the sum.
    while (number > 0)
    {
        int digit = number % 10;
        sum += digit;
        number /= 10;
    }

    // Display the sum of the digits.
    Console.WriteLine("The sum of the digits is {0}.", sum);
}
}

```

4.

```

using System;

public class Program
{
    public static void Main(string[] args)
    {
        // Declare a variable to store the user input number.
        int number;

        // Prompt the user to enter a number.
        Console.WriteLine("Enter a positive integer: ");
        number = Convert.ToInt32(Console.ReadLine());

        // Initialize a variable to store the sum of the odd numbers.
        int sum = 0;
    }
}

```

```
    // Iterate over the odd numbers from 1 to the user input number and add them to the sum.
    for (int i = 1; i <= number; i += 2)
    {
        sum += i;
    }
    // Display the sum of the odd numbers.
    Console.WriteLine("The sum of the odd numbers is {0}.", sum);
}
}
```