Lab 03

Q1.

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace Q1

{

internal class Program

{

static void Main(string[] args)

{

Console.WriteLine("Enter the value: ");

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

string result = IsEvenOrOdd(numb);

Console.WriteLine($"The number {numb} is {result}");

Console.ReadKey();

}

static string IsEvenOrOdd(int numb)

{

if(numb % 2 == 0)

{

return "Even";

}

else

{

return "Odd";

}

}

}

}

Q2.

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace Q2

{

class Program

{

static void Main(string[] args)

{

Console.WriteLine("Enter a string: ");

string inputstring = Console.ReadLine();

string vowelCount = CountVowels(inputString);

Console.WriteLine($"Number of vowels in the string: {vowelCount}");

Console.ReadKey();

}

static int vowelCounts(string inputString)

{

int count = 0;

foreach (char c in inputString)

{

char lowercaseChar = char.ToLower(c);

if(lowercaseChar == 'a' || lowercaseChar == 'e' || lowercaseChar == 'i' || lowercaseChar == 'o' || lowercaseChar == 'u')

{

count++;

}

}

return count;

}

}

}

Q3.

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace Q3

{

internal class Program

{

static void Main(string[] args)

{

Console.WriteLine("Enter the number: ");

string numb = Console.ReadLine();

if(int.TryParse(numb, out int number))

{

int sum = GetSumOfDigits(number);

Console.WriteLine($"Sum of the digits of {number} is: {sum}");

}

else

{

Console.WriteLine("Invalid Input");

}

Console.ReadKey();

}

static int GetSumOfDigits(int number)

{

int sum = 0;

int numb = Math.Abs(number);

while (number > 0)

{

int digit = number % 10;

sum += digit;

number /= 10;

}

return sum;

}

}

}

Q4.

using System;

namespace Q4

{

class Program

{

static void Main(string[] args)

{

Console.Write("Enter a positive integer: ");

if (int.TryParse(Console.ReadLine(), out int n) && n > 0)

{

int sum = CalculateSumOfOddNumbers(n);

Console.WriteLine($"Sum of all odd numbers from 1 to {n} is: {sum}");

}

else

{

Console.WriteLine("Invalid input! Please enter a valid positive integer.");

}

Console.ReadKey();

}

static int CalculateSumOfOddNumbers(int n)

{

int sum = 0;

for (int i = 1; i <= n; i++)

{

if (i % 2 != 0)

{

sum += i;

}

}

return sum;

}

}

}