**Lab 03**

(1)

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace Q\_1

{

internal class Program

{

static void Main(string[] args)

{

Console.Write("Enter an integer: ");

int number =Convert.ToInt32(Console.ReadLine());

if(number%2 == 0)

{

Console.WriteLine("Even");

}

else

{

Console.WriteLine("Odd");

}

Console.ReadLine();

}

}

}

(2)

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace Q\_2

{

internal class Program

{

static void Main(string[] args)

{

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

string input = Console.ReadLine();

int vowelCount = CountVowels(input);

Console.WriteLine("Number of vowels: " + vowelCount);

Console.ReadLine();

}

static int CountVowels(string input)

{

int count = 0;

foreach (char c in input)

{

if (IsVowel(c))

{

count++;

}

}

return count;

}

static bool IsVowel(char c)

{

char lowerC = char.ToLower(c);

char[] vowels = { 'a', 'e', 'i', 'o', 'u' };

foreach(char vowel in vowels)

{

if(lowerC == vowel)

{

return true;

}

}

return false;

}

}

}

(3)

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace Q\_3

{

internal class Program

{

static void Main(string[] args)

{

Console.Write("Enter a number: ");

int number = Convert.ToInt32(Console.ReadLine());

int sum = CalculateDigitSum(number);

Console.WriteLine("Sum of the digits: " + sum);

Console.ReadLine();

}

static int CalculateDigitSum(int number)

{

int sum = 0;

while(number != 0)

{

int digit = number % 10;

sum += digit;

number /= 10;

}

return sum;

}

}

}

(4)

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace Q\_4

{

internal class Program

{

static void Main(string[] args)

{

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

int n = Convert.ToInt32(Console.ReadLine());

int sum = CalculateOddSum(n);

Console.WriteLine("Sum of odd numbers: " + sum);

Console.ReadLine();

}

static int CalculateOddSum(int n)

{

int sum = 0;

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

{

if (i % 2 != 0)

{

sum += i;

}

}

return sum;

}

}

}