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Date	Oct-03-2024	Session No	4
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Topic : Programming (C# and Dot Net) Methods / Functions
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Questions to Practice

1. Find if a Number is Even or Odd

```
public static string IsEvenOrOdd(int number)
{
    if (number % 2 == 0)
        return "Even";
    else
        return "Odd";
}
```

2. Check if a Number is Prime

```
public static bool IsPrime(int number)
{
```

```

if (number <= 1)
    return false;

for (int i = 2; i <= Math.Sqrt(number); i++)
{
    if (number % i == 0)
        return false;
}
return true;
}

```

3. Find the Largest Number in an Array

```

public static int FindLargest(int[] numbers)
{
    int largest = numbers[0];
    foreach (int num in numbers)
    {
        if (num > largest)
            largest = num;
    }
    return largest;
}

```

4. Reverse a String

```
public static string ReverseString(string str)
{
    char[] charArray = str.ToCharArray();
    Array.Reverse(charArray);
    return new string(charArray);
}
```

5. Calculate Factorial of a Number

```
public static int Factorial(int number)
{
    if (number <= 1)
        return 1;
    else
        return number * Factorial(number - 1);
}
```

6. Find the Sum of an Array

```
public static int SumArray(int[] numbers)
{
    int sum = 0;
    foreach (int num in numbers)
    {
        sum += num;
    }
}
```

```

    }
    return sum;
}

```

7. Check if a String is a Palindrome

```

public static bool IsPalindrome(string str)
{
    int left = 0, right = str.Length - 1;
    while (left < right)
    {
        if (str[left] != str[right])
            return false;

        left++;
        right--;
    }
    return true;
}

```

8. Fibonacci Series up to N terms

```

public static void Fibonacci(int terms)
{
    int a = 0, b = 1, next;
    for (int i = 1; i <= terms; i++)
    {

```

```

        Console.Write(a + " ");

        next = a + b;

        a = b;

        b = next;

    }

}

```

9. Find Minimum Number in an Array

```

public static int FindMinimum(int[] numbers)
{
    int min = numbers[0];

    foreach (int num in numbers)
    {
        if (num < min)
            min = num;
    }

    return min;
}

```

10. Count the Number of Vowels in a String

```

public static int CountVowels(string str)
{
    int count = 0;

    str = str.ToLower();

```

```
foreach (char ch in str)
{
    if ("aeiou".Contains(ch))
    {
        count++;
    }
}

return count;
}
```

Homework Assignment

1. Write a function to add two numbers and return the result.
2. Write a function to find the square of a number.
3. Write a function to find the largest of two numbers.
4. Write a function to check if a number is positive, negative, or zero.
5. Write a function to calculate the area of a rectangle (given length and width).
6. Write a function to print the first 10 natural numbers.
7. Write a function to convert temperature from Celsius to Fahrenheit.
8. Write a function to check if a character is a vowel or consonant.
9. Write a function to find the sum of all even numbers between 1 and 20.
10. Write a function to calculate the perimeter of a circle (given radius).

END