

(NOTE- Instructions are highlighted. Perform and Complete your journal accordingly.)

PRACTICAL-1

AIM: Write a programs for understanding C# basics involving-

1. Variable and Data Types
2. Object- Based Manipulation
3. Conditional Logic
4. Loops
5. Methods

1. Variable and Data Types

a.Performing Arithmetic Operations using Variables- (+, -, *, /, %- Try taking values from user)

SOURCE CODE-

```
using System;
public class DataVariableExample
{
    public static void Main(string[] args)
    {
        int x = 5;
        int y = 6;
        int sum = x + y;
        Console.WriteLine(sum); // Print the sum of x + y
        Console.ReadLine();
    }
}
```

2. Conditional Logic-

A If statement: (Try taking values from the user.)

SOURCE CODE-

```
using System;
public class EvenOddExample
{
    public static void Main(string[] args)
    {
        int a= 9;
        if(a%2 == 0)
        {
            Console.WriteLine ("It is an Even no.");
        }
    }
}
```

a. If- Else statement: (Try taking values from the user.)

SOURCE CODE-

```

using System;
//IF and IF Else Loop Program
public class EvenOddExample
{
    public static void Main(string[] args)
    {
        int a= 9;
        if(a%2 == 0)
        {
            Console.WriteLine ("It is an Even no.");
        }
        else
        {
            Console.WriteLine("It is an Odd no.");
        }
    }
}

```

b. If- Else If- Else statement-

SOURCE CODE-

```

using System;
// This program finds whether the given number is positive, negative or zero.
public class IfElseIfElse
{
    static void Main(string[] args)
    {
        int num;

        Console.WriteLine("Enter any number: ");
        num = Convert.ToInt32(Console.ReadLine());

        if (num > 0)
        {
            Console.WriteLine("Enter number is positive ");
        }
        else if (num < 0)
        {
            Console.WriteLine("Enter number is negative ");
        }
        else
        {
            Console.WriteLine("Enter number is zero ");
        }
        Console.ReadLine();
    }
}

```

c. Switch Statement: (You can do the same program for Days or Months. Try taking values from users.)

SOURCE CODE-

```
using System;
public class marksofStudents
{
    public static void Main(string[] args)
    {
        int marks= 80;
        switch(marks)
        {
            case 30:
                Console.WriteLine ("Fail");
                break;
            case 40:
                Console.WriteLine ("Average");
                break;
            case 50:
            case 60:
                Console.WriteLine ("Good");
                break;
            case 70:
                Console.WriteLine ("Very Good");
                break;
            case 80:
                Console.WriteLine ("Excellent");
                break;
            case 90:
                Console.WriteLine ("Outstanding");
                break;
            default:
                Console.WriteLine ("Invalid Marks.");
                break;
        }
        Console.WriteLine ("Your marks is {0} out of 100.", marks);
        Console.ReadLine();
    }
}
```

4. Loops (Theory written during lecture. You can write in short)

a. For Loop

SOURCE CODE-

```
using System;
public class ForLoopExample
{
    public static void Main(string[] args)
    {
        //using for loop
        for(int i=1;i<=10;i++){
            if(i==5){
                //breaking the loop
            }
        }
    }
}
```

```

        break;
    }
    Console.WriteLine(i);
}
}
}

```

b. While Loop

SOURCE CODE-

```

using System;
public class WhileLoopExample
{
    public static void Main(string[] args)
    {
        int num, fact= 1;
        Console.WriteLine ("Enter the number: ");
        num= int.Parse(Console.ReadLine());
        while(num > 0){
            fact= fact*num;
            num--;
        }
        Console.WriteLine("\n factorial of given number is: "+fact);
        Console.ReadLine();
    }
}

```