

ASSIGNMENT - 4

HEMAVARSHINI D

Question 1

Write a program to print numbers from 1 to 10.

```
public class PrintOneToTen
{
    public static void main(String[] args)
    {
        for(int i=1;i<=10;i++)
        {
            System.out.print(i+" ");
        }
    }
}
```

Question 2

Write a program to calculate the sum of first 10 natural number.

```
public class SumOfNaturalNumber
{
    public static void main(String[] args)
    {
        int i=1,sum=0;
        while(i<=10)
        {
            sum+=i;
            i++;
        }
        System.out.print(sum);
    }
}
```

Question 3

Write a program that prompts the user to input a positive integer. It should then print the multiplication table of that number.

```
import java.util.Scanner;

public class MultiplicationTable
{
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);

        System.out.print("enter a positive number to know its Multipliacion
table");

        int num = sc.nextInt();

        int i =1,ans;

        do {
            ans=i*num;

            System.out.println(i+" * "+num+" = "+ans);

            i++;

        }while(i<=20);

    }
}
```

Question 4

Write a program to find the factorial value of any number entered through the keyboard.

```
import java.util.Scanner;

public class FactorialNumber
{
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
```

```

        System.out.print("enter a number to know its factorial value");

        int num = sc.nextInt();

        int fact=1;

        for(int i=num;i>=1;i--)
        {
            fact*=i;
        }

        System.out.println("factorial of "+num+" is "+fact);

    }
}

```

Question 5

Two numbers are entered through the keyboard. Write a program to find the value of one number raised to the power of another. (Do not use Java built-in method)

```

import java.util.Scanner;

public class PowerOfAnotherNumber
{
    public static void main(String[] args)
    {
        Scanner scan = new Scanner(System.in);
        System.out.println("enter the base number");
        int base =scan.nextInt();
        System.out.println("enter the power ");
        int power =scan.nextInt();
        int result = 1;
        while (power != 0)
        {
            result *= base;
            power--;
        }
        System.out.println("Result = " + result);
    }
}

```

```
}
```

Question 6

Write a program that prompts the user to input an integer and then outputs the number with the digits reversed. For example, if the input is 12345, the output should be 54321.

```
import java.util.Scanner;

public class ReverseNumber
{
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("enter a number to print its reverse order");
        int num = sc.nextInt();
        while(num>0)
        {
            int rem=num % 10;
            System.out.print(rem);
            num = num/10;
        }
        sc.close();
    }
}
```

Question 7

Write a program that reads a set of integers, and then prints the sum of the even and odd integers.

```
import java.util.Scanner;

public class EvenOrOdd
{
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);

        int number;
        char choice;
```

```

do
{
    System.out.print("Enter any number to check odd or even ");
    number = sc.nextInt();

    if( number % 2 == 0)
    {
        System.out.println("even");
    }
    else
    {
        System.out.println("odd");
    }

    System.out.print("Do you want to continue y/n? ");
    choice = sc.next().charAt(0);

    }while(choice=='y' || choice == 'Y');
}
}

```

Question 8

Write a program that prompts the user to input a positive integer. It should then output a message indicating whether the number is a prime number.

```

import java.util.Scanner;

public class PrimeOrNot
{
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("enter a number to check prime or not");
        int num = sc.nextInt();
        int i = 2;
        boolean flag = false;
    }
}

```

```

while (i <= num / 2)
{
    if (num % i == 0)
    {
        flag = true;
        break;
    }
    ++i;
}

if (!flag)
    System.out.println(num + " is a prime number.");
else
    System.out.println(num + " is not a prime number.");
sc.close();
}
}

```

Question 9

Write a program to calculate HCF of Two given number.

```

import java.util.Scanner;

public class HcfOfTwoNumbers
{
    public static void main(String[] args)
    {
        int hcf = 0;
        Scanner scan = new Scanner(System.in);

        System.out.println("Enter first number");
        int num1 = scan.nextInt();

        System.out.println("Enter second number");
        int num2 = scan.nextInt();
    }
}

```

```

        for (int i = 1; i <= num1 || i <= num2; i++)
        {
            if (num1 % i == 0 && num2 % i == 0)
                hcf = i;
        }

        System.out.println("The HCF: "+ hcf);
        scan.close();
    }
}

```

Question 10

Write a do-while loop that asks the user to enter two numbers. The numbers should be added and the sum displayed. The loop should ask the user whether he or she wishes to perform the operation again. If so, the loop should repeat; otherwise it should terminate.

```

import java.util.Scanner;

public class AdditionOfTwoNumber
{
    public static void main(String[] args)
    {
        Scanner scan = new Scanner(System.in);
        char choice;
        do
        {
            System.out.println("Enter first number");
            int num1 = scan.nextInt();

            System.out.println("Enter second number");
            int num2 = scan.nextInt();

            int sum = num1+num2;

            System.out.println(sum);

```

```

        System.out.print("Do you want to continue y/n? ");
        choice = scan.next().charAt(0);

        }while(choice=='y' || choice == 'Y');
        scan.close();
    }
}

```

Question 11

Write a program to enter the numbers till the user wants and at the end it should display the count of positive, negative and zeros entered.

```

import java.util.Scanner;

public class CountOfPositiveNegativeAndZero
{
    public static void main(String[] args)
    {
        int positiveCount = 0;
        int negativeCount = 0;
        int zeroCount = 0;

        Scanner scanner = new Scanner(System.in);
        int num;
        do {
            System.out.println("enter a number ");
            int number = scanner.nextInt();
            if (number > 0)
                positiveCount++;
            else if (number < 0)
                negativeCount++;
            else
                zeroCount++;

            System.out.println("do want to continue !");
            System.out.println("enter 0 to stop or 1 to continue : ");
            num = scanner.nextInt();
        }
    }
}

```



```

        } while (num == 1);

        System.out.println(" no of positive integers :" + positiveCount);
        System.out.println(" no of negative integers :" + negativeCount);
        System.out.println(" no of zeros :" + zeroCount);
        scanner.close();
    }
}

```

Question 12

Write a program to enter the numbers till the user wants and at the end the program should display the largest and smallest numbers entered.

```

import java.util.Scanner;

public class LargestAndSmallestNumbers
{
    public static void main(String[] args)
    {
        Scanner scanner = new Scanner(System.in);
        int largestNum = 0;
        int smallestNum = 0;
        char choice;
        do {
            System.out.println(" enter a number :");
            int num = scanner.nextInt();

            if (num > largestNum)
                largestNum = num;
            else if (num < largestNum)
                smallestNum = num;

            System.out.print("Do you want to continue y/n? ");
            choice = scanner.next().charAt(0);
        } while (choice == 'y' || choice == 'Y');

        System.out.println(" largest number is " + largestNum);
    }
}

```

```
        System.out.println(" smallest number is " + smallestNum);  
        scanner.close();  
    }  
}
```