Assignment:05

1.Write a program to swap two numbers in Java:

https://codeshare.io/8plxvv

```
package Swaping;

public class Swaping {
    public static void main(String args[]) {
        int a=5;
        int b=10;
        int temp;
        System.out.println("Before swaping");
        System.out.println("First number = " + a);
        System.out.println("Second number = " + b);
        temp=a;
        a=b;
        b=temp;
        System.out.println("After swaping");
        System.out.println("First number = " + a);
        System.out.println("Second number = " + b);
    }

}
```

Output:

```
Before swaping
First number = 5
Second number = 10
After swaping
First number = 10
Second number = 5
```

2.Write a program to print all the elements of the Fibonacci series

https://codeshare.io/JbMRW6

```
package com.tecnotree.assignment;

public class fiboancci {
    public static int Fib(int n) {
        if(n<=1) {
            return n;
        }
        else {
            return Fib(n-1) + Fib(n-2);
        }
   }
    public static void main(String args[]) {
        int n=10;
        System.out.println("the fibonacci series is " + Fib(n-1) + Fib(n-2));
    }
}
```

Output:

```
the fibonacci series is 3421
```

3.Check if a given number is palindrome or not.

https://codeshare.io/X8EJll

```
package com.tecnotree.assignment;

public class palindrome {
    public static void main(String args[]) {
        int digit,n=101,rev=0;
        int num=n;
        while(n>0) {
            digit=n%10;
            n=n/10;
            rev=(rev*10)+digit;
        }
        if(num==rev) {
            System.out.println("the given number " + num + " is palindrome");
        }
        else {
            System.out.println("the given number " + num + " is not palindrome");
        }

    }

}
```

Output:

```
:he given number 101 is palindrome
```

4.Write a program to find whether a number is an Armstrong number or not

https://codeshare.io/vwjO07

```
package com.tecnotree.assignment;

public class Armstrong {
    public static void main(String args[]) {
        int digit,n=153,sum=0;
        int num=n;
        while(n>0) {
            digit=n%10;
            n=n/10;
            sum=sum+(digit*digit*digit);
        }
        if(num==sum)
            System.out.println("the given number " + num + " is Armstrong");
        else
            System.out.println("the given number " + num + " is not Armstrong");
    }
}
```

Output;

```
:he given number 153 is Armstrong
```

5.Find the GCD of two numbers.

https://codeshare.io/OdERlA

```java
package com.tecnotree.assignment;

    public class GCD {
        public static void main(String[] args) {
            int num1 =20;
            int num2 = 10;

            int gcd = findGCD(num1, num2);
            System.out.println("The GCD of " + num1 + " and " + num2 + " is " + gcd);
        }

        public static int findGCD(int num1, int num2) {
            while(num2 != 0) {
                int temp = num2;
                num2 = num1 % num2;
                num1 = temp;
            }
            return num1;
        }
    }
```

Output:

```
he GCD of 20 and 10 is 10
```

6.Write a program to find the sum of n natural numbers

https://codeshare.io/wnvzlK

```
package com.tecnotree.assignment;

public class NaturalNumbers {
    public static void main(String args[]) {
        int n=10,sum=0;
        sum=(n*(n+1))/2;
        System.out.println("the sum natural number is " + sum);
    }

}
```

Output:

```
The GCD of 20 and 10 is 10
```

7.Write a program to find the lcm of two numbers.

https://codeshare.io/dwQndy

```
package com.tecnotree.assignment;

public class LCM {
        public static void main(String[] args) {
            int num1 = 24;
            int num2 = 36;

            int gcd = findGCD(num1, num2);
            int lcm = (num1 * num2) / gcd;

            System.out.println("The LCM of " + num1 + " and " + num2 + " is " + lcm);
        }
        public static int findGCD(int num1, int num2) {
            if (num2 == 0) {
                return num1;
            }
            return findGCD(num2, num1 % num2);
        }
    }
```

Output:

```
The LCM of 24 and 36 is 72
```

8.Calculate the sum of digits of a given number:

https://codeshare.io/0gvEnD

```java
package com.tecnotree.assignment;

public class SumOfDigit {
    public static void main(String args[]) {
        int digit,n=18,sum=0;
        int num=n;
        while(n>0) {
            digit=n%10;
            n=n/10;
            sum=sum+digit;
        }
        System.out.println("the sum of digit is " + sum);
    }
}
```

Output:

```
the sum of digit is 9
```

9.Write a program to reverse a string

https://codeshare.io/78mEpk

```java
package com.tecnotree.assignment;

public class Reverse {

	public static void main(String[] args) {
		String input = "Virat Kohli";
		String reversed = "";

		for (int i = input.length() - 1; i >= 0; i--) {
			reversed += input.charAt(i);
		}

		System.out.println("Reversed string: " + reversed);
	}
}
```

Output:

```
Reversed string: ilhoK tariV
```

10.Write a code to print all the first n prime numbers where n will be given as input

https://codeshare.io/VZERmz

```java
package com.tecnotree.assignment;

import java.util.Scanner;

public class FirstNPrime {
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        System.out.print("Enter the value of n: ");
        int n = input.nextInt();

        int count = 0;
        int num = 2;

        while (count < n) {
            boolean isPrime = true;
            for (int i = 2; i <= Math.sqrt(num); i++) {
                if (num % i == 0) {
                    isPrime = false;
                    break;
                }
            }
            if (isPrime) {
                System.out.print(num + " ");
                count++;
            }
            num++;
        }
    }
}
```

Output:

```
Enter the value of n: 5
2 3 5 7 11
```