Assessment -5
Basics Java Programming

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

https://codeshare.io/mpbjZW

swaptonumbers.java

```java
package com.tecnotree.helloworldprogram;

public class swaptonumbers {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        int a=12;
        int b=20;

        System.out.println("before swapping the numbers:");
        System.out.println("first number="+a);
        System.out.println("second number="+b);

        a=a+b;
        b=a-b;
        a=a-b;

        System.out.println("after swapping the numbers:");
        System.out.println("first number="+a);
        System.out.println("second number="+b);

    }

}
```

Problems Javadoc Declaration Console

```
<terminated> swaptonumbers [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe  (27-Feb-2023, 9:16:46 pm – 9:16:49 pm) [pid: 16000]
before swapping the numbers:
first number=12
second number=20
after swapping the numbers:
first number=20
second number=12
```

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

https://codeshare.io/zyA9Oj

fibonacciseries.java

```
1  package com.tecnotree.helloworldprogram;
2
3  public class fibonacciseries {
4
5      public static void main(String[] args) {
6          // TODO Auto-generated method stub
7          int num=16;
8          int a=0,b=1;
9
10         System.out.print(a+","+b+",");
11
12         int nextTerm;
13
14         for(int i=2;i<num;i++)
15         {
16             nextTerm=a+b;
17             a=b;
18             b=nextTerm;
19             System.out.print(nextTerm +",");
20         }
21
22     }
23
24 }
```

Problems Javadoc Declaration Console

```
<terminated> fibonacciseries [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe  (27-Feb-2023, 9:34:23 pm – 9:34:24 pm) [pid: 1104]
0,1,1,2,3,5,8,13,21,34,55,89,144,233,377,610,
```

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

https://codeshare.io/JbMgkE

palindrome.java

```
1  package com.tecnotree.helloworldprogram;
2
3  public class palindrome {
4
5      public static void main(String[] args) {
6          int num=12021,reverse=0,rem,temp;
7
8          temp=num;
9          while (temp!=0)
10         {
11             rem=temp%10;
12             reverse=reverse*10+rem;
13             temp/=10;
14         };
15
16         if(num==reverse)
17             System.out.println(num+"is palindrome");
18         else
19             System.out.println(num+"not palindrome");
20         }
21     }
22
23
24
```

Problems Javadoc Declaration Console

```
<terminated> palindrome [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe  (27-Feb-2023, 9:54:10 pm – 9:54:10 pm) [pid: 11388]
12021is palindrome
```

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

https://codeshare.io/oQ3qwL

armstrong.java

```java
package com.tecnotree.helloworldprogram;

        import java.util.Scanner;

        public class armstrong{
            public static void main(String[] args) {
                Scanner sc = new Scanner(System.in);
                System.out.print("Enter a number: ");
                int number = sc.nextInt();

                int sum = 0;
                int originalNumber = number;
                int digits = String.valueOf(number).length();

                while (number > 0) {
                    int digit = number % 10;
                    sum += Math.pow(digit, digits);
                    number /= 10;
                }

                if (originalNumber == sum) {
                    System.out.println(originalNumber + " is an Armstrong number.");
                } else {
                    System.out.println(originalNumber + " is not an Armstrong number.");
                }

                sc.close();
            }
```

Problems Javadoc Declaration Console

```
<terminated> armstrong [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe  (27-Feb-2023, 10:03:38 pm – 10:03:41 pm) [pid: 16496]
Enter a number: 153
153 is an Armstrong number.
```

5.Find the GCD of two numbers.

https://codeshare.io/WdE8oE

GCD.java

```java
package com.tecnotree.helloworldprogram;

public class GCD {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        int n1=20,n2=50,gcd;
        while(n1!=n2) {
            if(n1>n2)
                n1-=n2;
            else
                n2-=n1;

        }
        System.out.println("the gcd:"+n1);

    }

}
```

Problems Javadoc Declaration Console

```
<terminated> GCD [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe  (27-Feb-2023, 9:59:50 pm – 9:59:52 pm) [pid: 7728]
the gcd:10
```

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

https://codeshare.io/4eoxJ4

naturalnumber.java

```
1  package com.tecnotree.helloworldprogram;
2
3  public class naturalnumber {
4
5      public static void main(String[] args) {
6          // TODO Auto-generated method stub
7          int n=10;
8          int sum=0;
9
10         for(int i=1;i<=n;i++)
11             sum+=i;
12         System.out.println(sum);
13
14     }
15
16 }
17
```

Problems Javadoc Declaration Console

```
<terminated> naturalnumber [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe  (27-Feb-2023, 10:06:13 pm – 10:06:14 pm) [pid: 12612]
55
```

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

https://codeshare.io/gL9plV

lcm.java

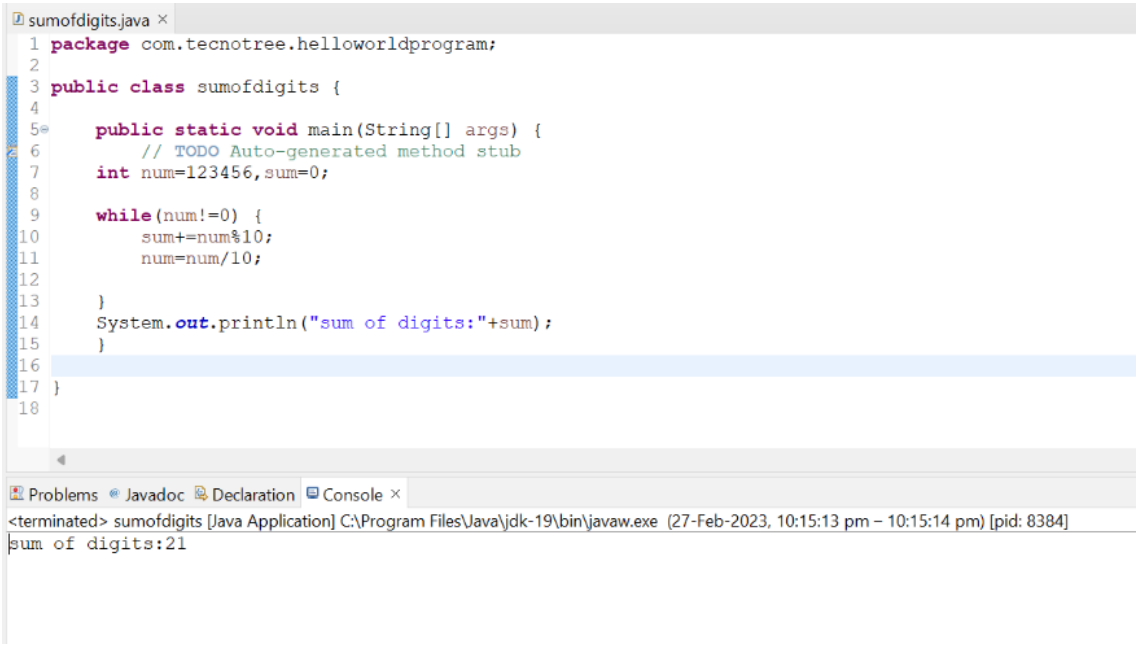
```
1  package com.tecnotree.helloworldprogram;
2
3  public class lcm {
4
5      public static void main(String[] args) {
6          // TODO Auto-generated method stub
7          int n1=16,n2=24,hcf=1;
8
9          for(int i=1;i<n1||i<=n2;i++) {
10             if (n1%i==0&&n2%i==0)
11                 hcf=i;
12         }
13      int lcm=(n1*n2)/hcf;
14      System.out.println("the lcm:"+lcm);
15     }
16
17 }
18
```

Problems Javadoc Declaration Console

```
<terminated> lcm [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe  (27-Feb-2023, 10:09:50 pm – 10:09:51 pm) [pid: 18944]
the lcm:48
```

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

https://codeshare.io/r9lrBV

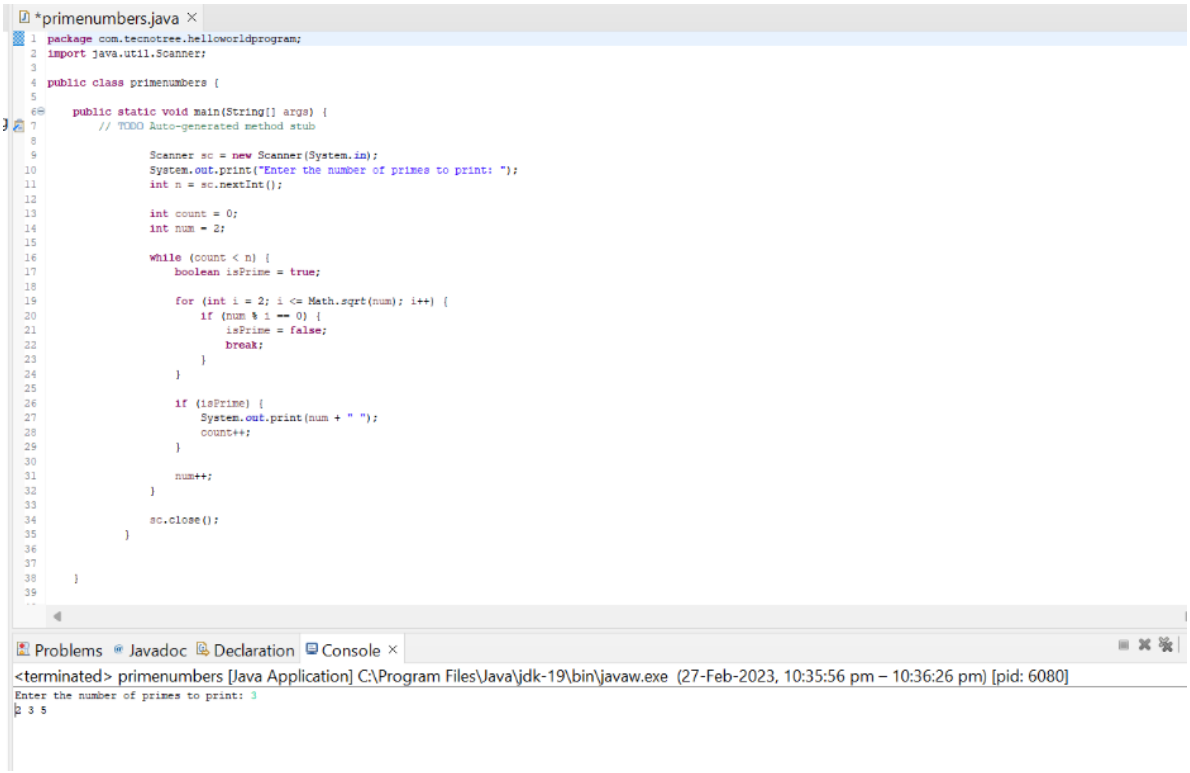


9.Write a program to reverse a string.

https://codeshare.io/WdE8g3

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

https://codeshare.io/nzor9j



```
*primenumbers.java
package com.tecnotree.helloworldprogram;
import java.util.Scanner;

public class primenumbers {

    public static void main(String[] args) {
        // TODO Auto-generated method stub

            Scanner sc = new Scanner(System.in);
            System.out.print("Enter the number of primes to print: ");
            int n = sc.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++;
            }

            sc.close();
        }


    }

Problems  Javadoc  Declaration  Console
<terminated> primenumbers [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe  (27-Feb-2023, 10:35:56 pm – 10:36:26 pm) [pid: 6080]
Enter the number of primes to print: 3
2 3 5
```

----------THANK YOU----------