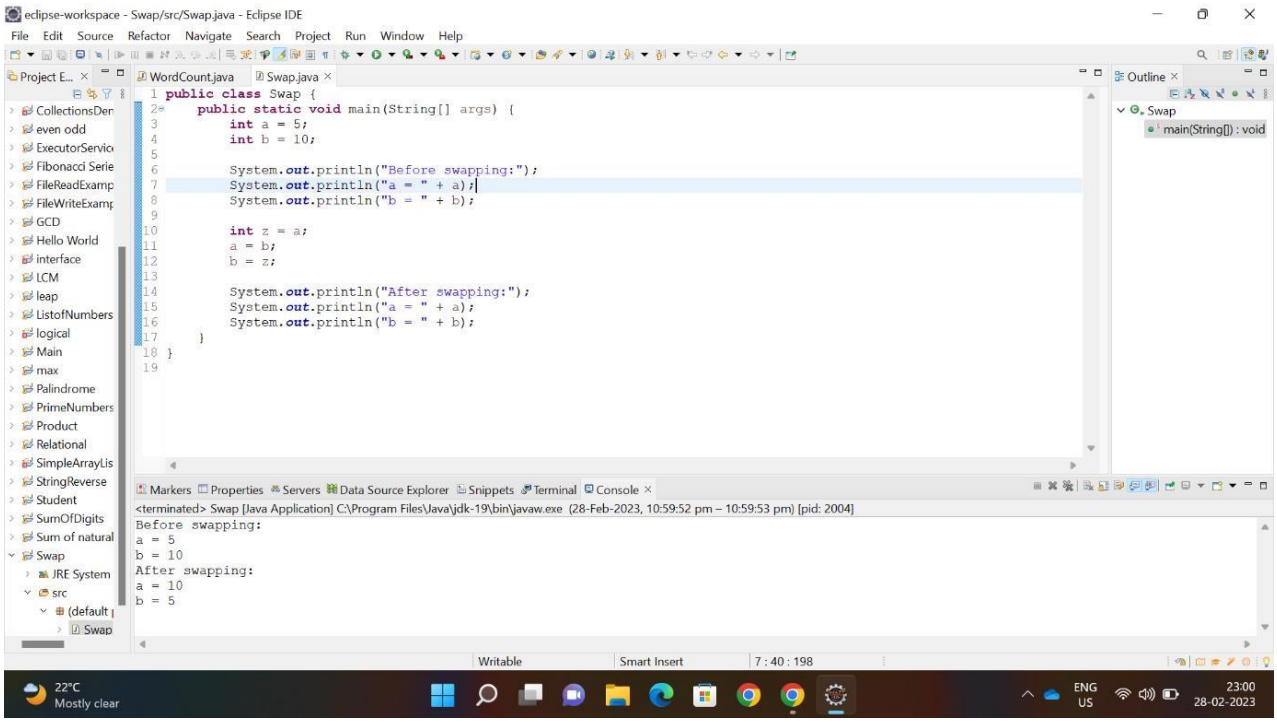
ASSIGNMENT 5

1. Write a Java program to swap two numbers.
   Code: https://codeshare.io/OdEmlg

```
public class Swap {

public static void main(String[] args) {

int a = 5;

int b = 10;

System.out.println("Before swapping:");

System.out.println("a = " + a);

System.out.println("b = " + b);

int z = a;

a = b;

b = z;

System.out.println("After swapping:");

System.out.println("a = " + a);

System.out.println("b = " + b);

}

}
```



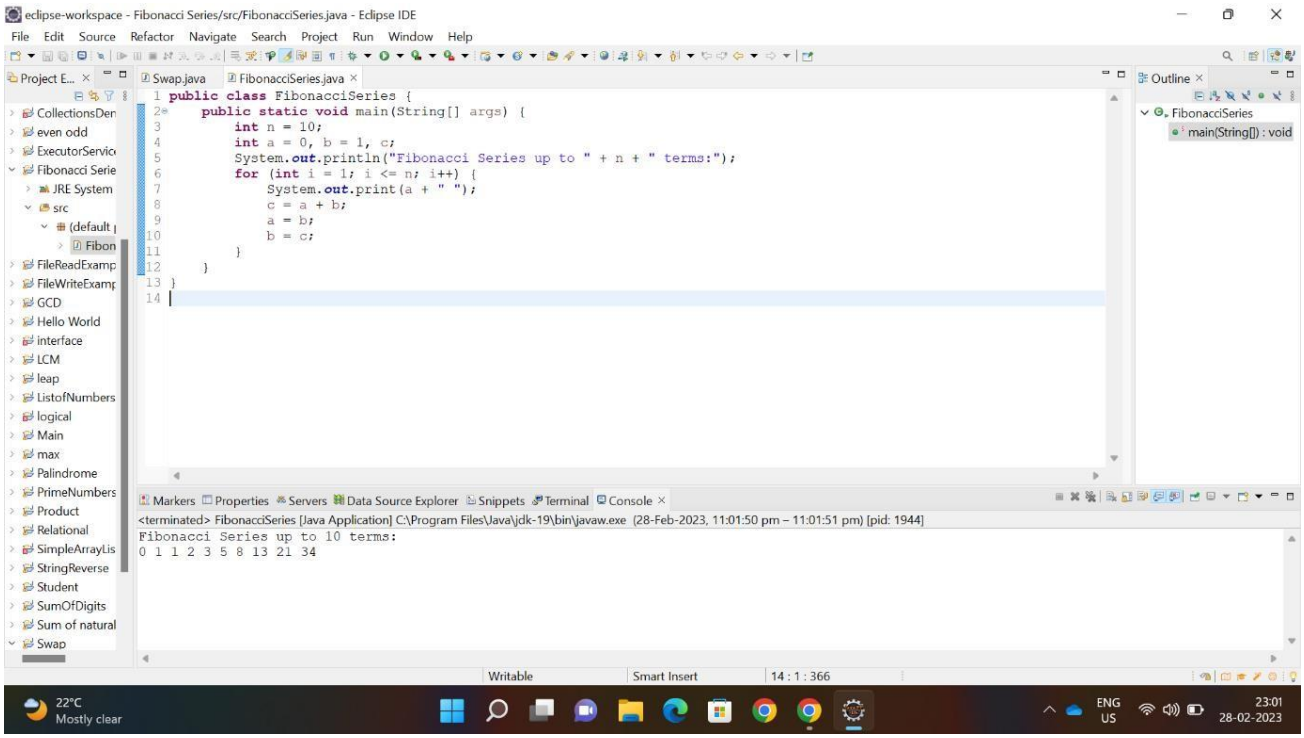
2. Write a Java program to print all the elements of the Fibonacci series.

   Code: https://codeshare.io/0gv4bv

```
public class FibonacciSeries {

public static void main(String[] args) {

int n = 10;

int a = 0, b = 1, c;

System.out.println("Fibonacci Series up to " + n + "
terms:");

for (int i = 1; i <= n; i++) {

System.out.print(a + " ");

c = a + b;

a = b;
```

```
b = c;
```

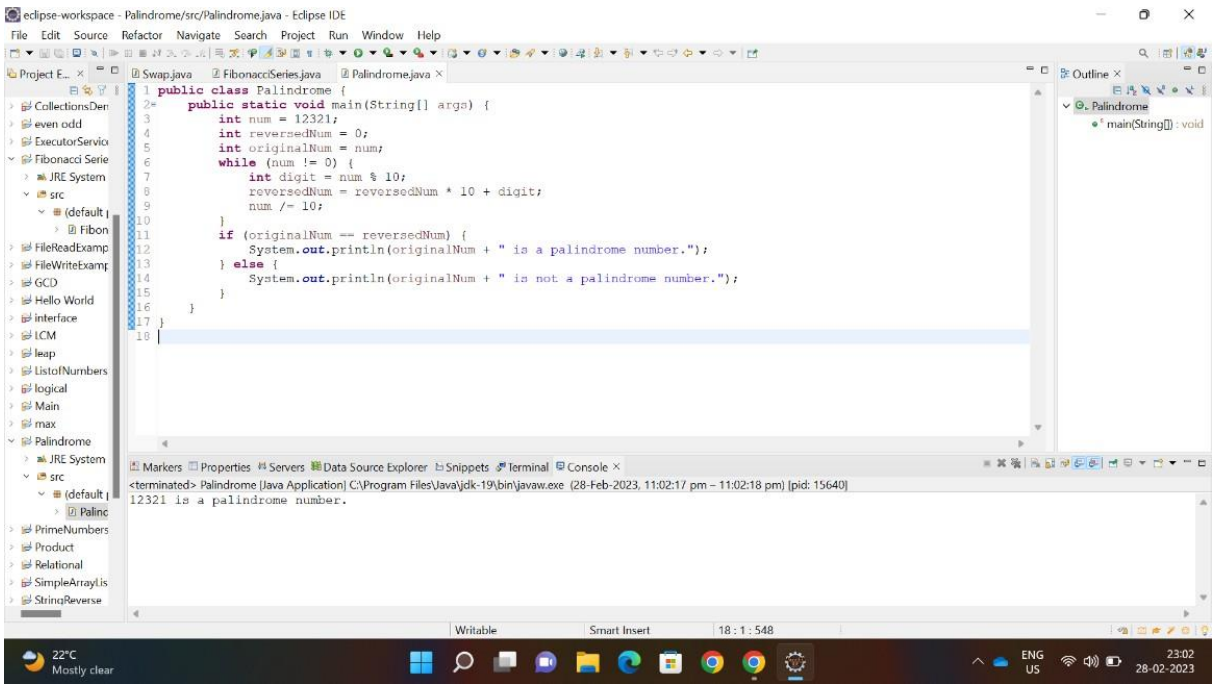
```
}

}

}
```



3. Write a Java program to check whether a given number is palindrome or not.
   Code: https://codeshare.io/pqkElX

```
public class Palindrome {

public static void main(String[] args) {

int num = 12321;

int reversedNum = 0;

int originalNum = num;

while (num != 0) {

int digit = num % 10;
```

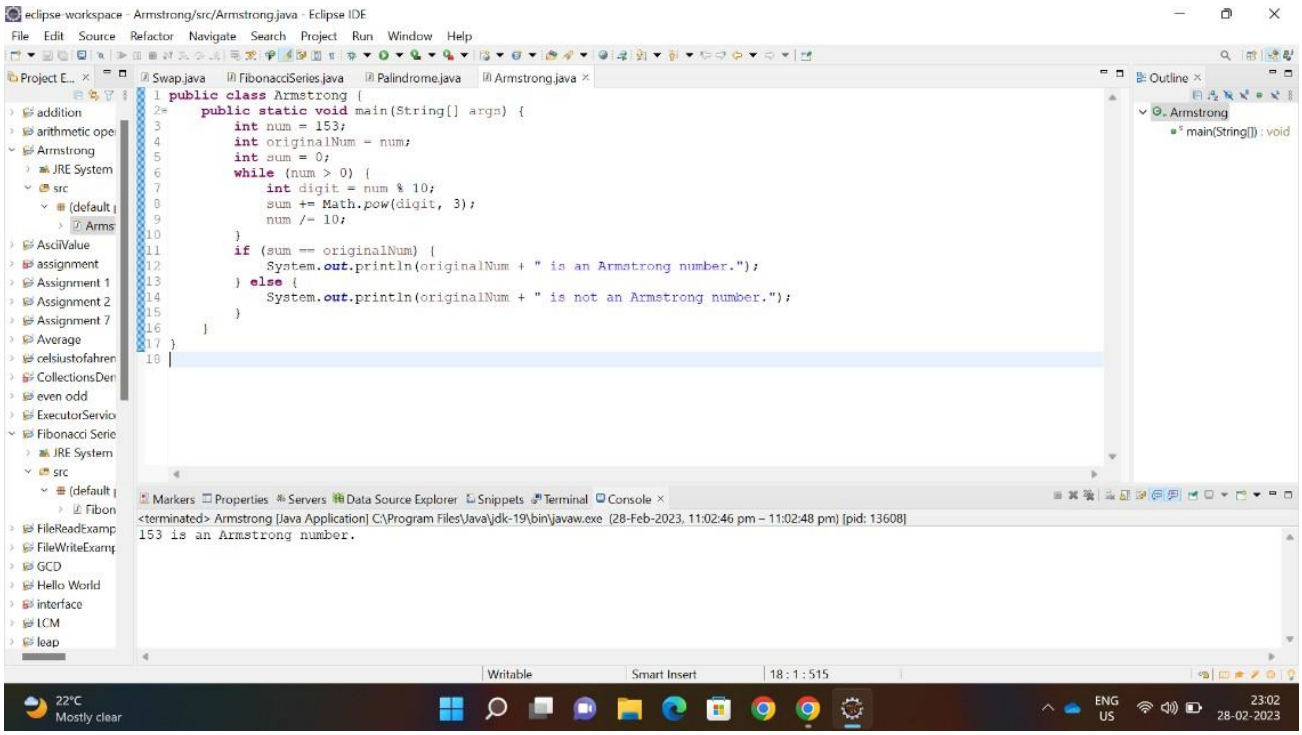
```
reversedNum = reversedNum * 10 + digit;

num /= 10;

}

if (originalNum == reversedNum) {

System.out.println(originalNum + " is a palindrome
number.");

} else {

System.out.println(originalNum + " is not a
palindrome number.");

}

}

}
```



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

   Code: https://codeshare.io/6pknXg

```
public class Armstrong {

public static void main(String[] args) {

int num = 153;

int originalNum = num;

int sum = 0;

while (num > 0) {

int digit = num % 10;

sum += Math.pow(digit, 3);

num /= 10;

}

if (sum == originalNum) {

System.out.println(originalNum + " is an Armstrong
number.");

} else {

System.out.println(originalNum + " is not an
Armstrong number.");

}

}

}
```

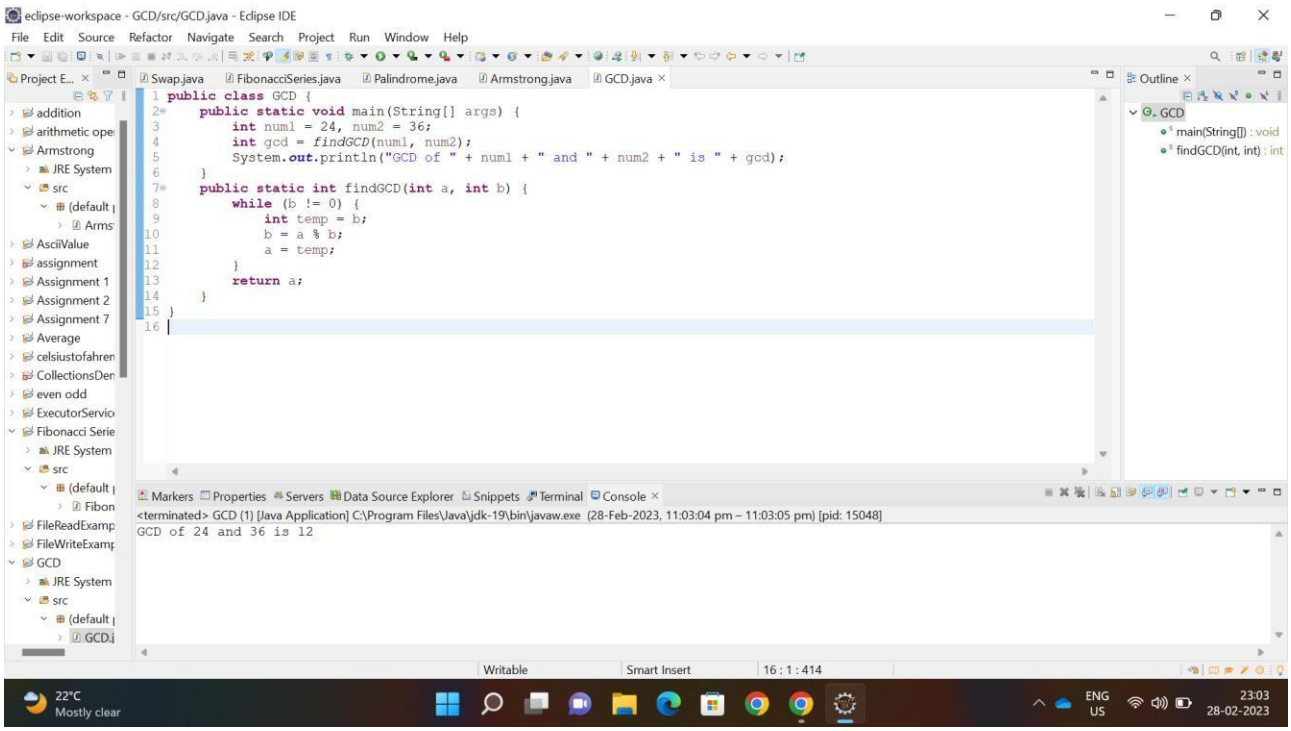


5. Write a Java program to find the GCD of two numbers.

Code: https://codeshare.io/X8Ewml

```
public class GCD {

public static void main(String[] args) {

int num1 = 24, num2 = 36;

int gcd = findGCD(num1, num2);

System.out.println("GCD of " + num1 + " and " + num2
+ " is " + gcd);

}

public static int findGCD(int a, int b) {

while (b != 0) {

int temp = b;

b = a % b;
```

```
a = temp;
}
return a;
}
}
```

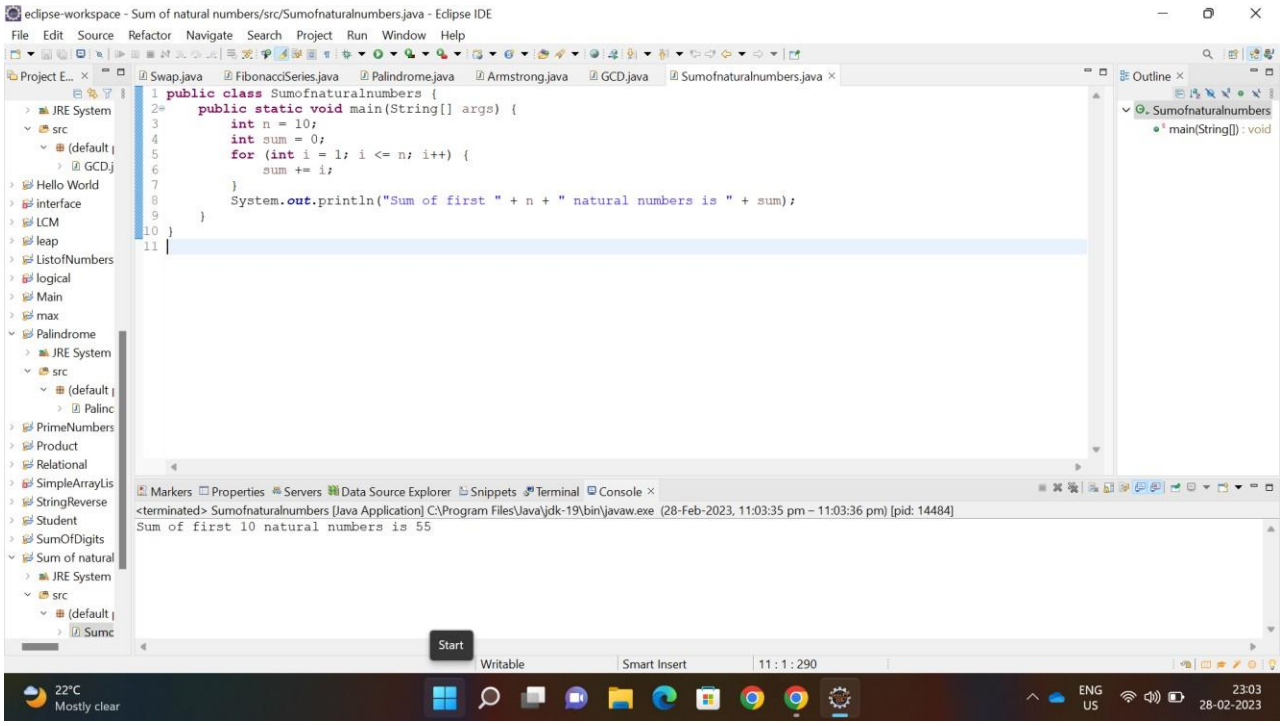


6. Write a Java program to find the sum of n natural numbers.

Code: https://codeshare.io/8ploZB

```
public class Sumofnaturalnumbers {
public static void main(String[] args) {
int n = 10;
int sum = 0;
for (int i = 1; i <= n; i++) {
sum += i;
```

```
}

System.out.println("Sum of first " + n + " natural
numbers is " + sum);

}

}
```

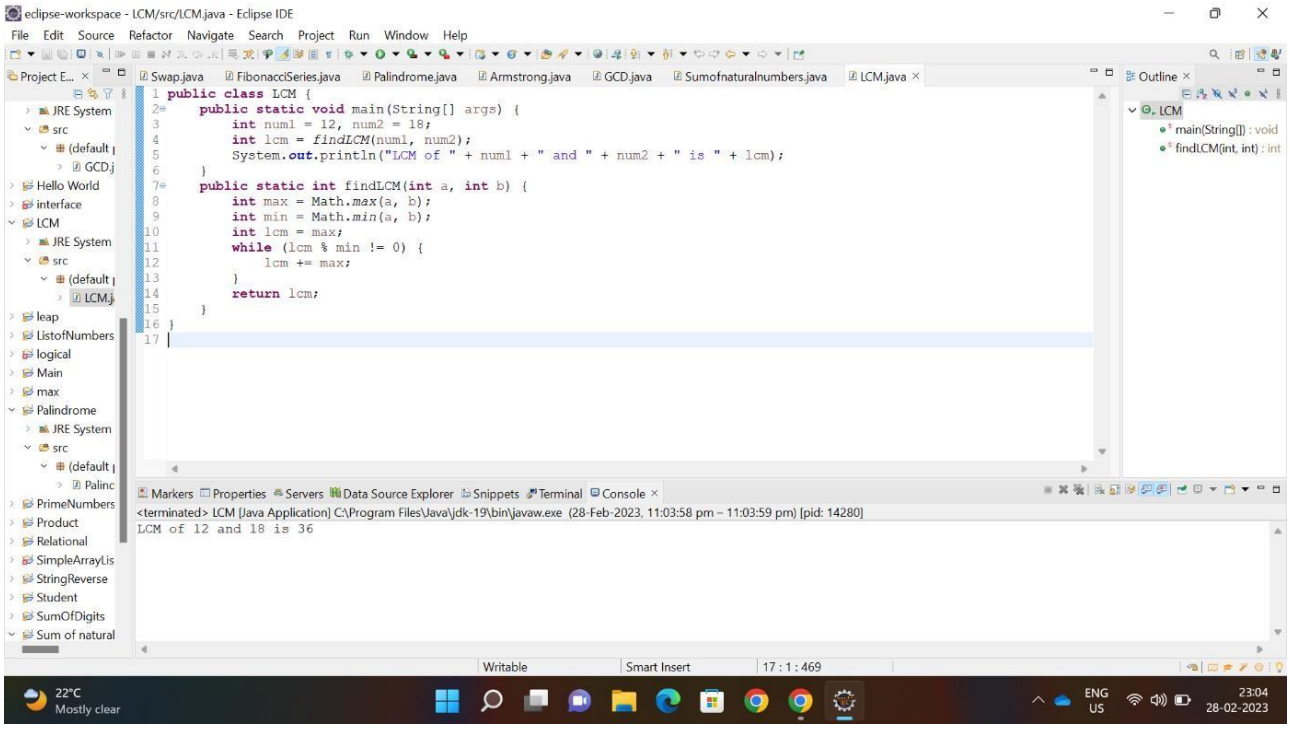


7. Write a Java program to find the LCM of two numbers.

Code: https://codeshare.io/bvOkp6

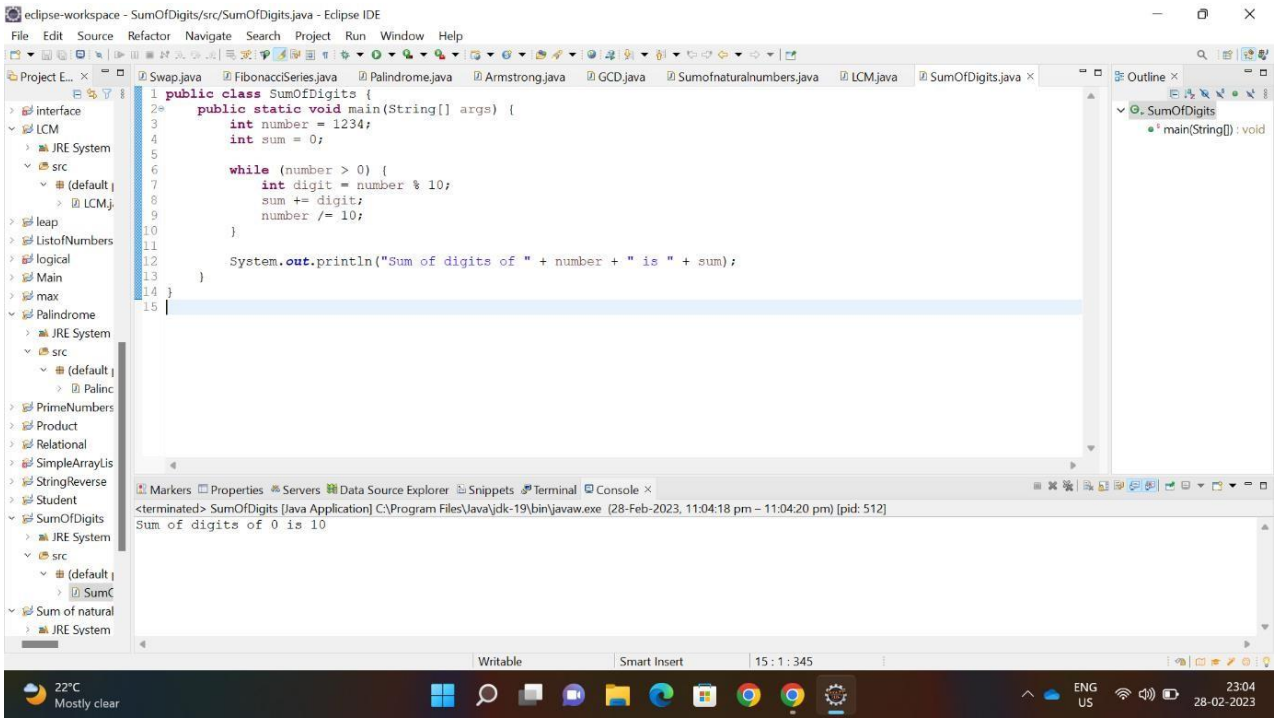
```
public class LCM {

public static void main(String[] args) {

int num1 = 12, num2 = 18;

int lcm = findLCM(num1, num2);
```

```
System.out.println("LCM of " + num1 + " and " + num2
+ " is " + lcm);

}

public static int findLCM(int a, int b) {

int max = Math.max(a, b);

int min = Math.min(a, b);

int lcm = max;

while (lcm % min != 0) {

lcm += max;

}

return lcm;

}

}
```



8. Write a Java program to calculate the sum of digits of a given number.
Code: https://codeshare.io/lonEQR

```
public class SumOfDigits {

public static void main(String[] args) {

int number = 1234;

int sum = 0;

while (number > 0) {

int digit = number % 10;

sum += digit;

number /= 10;

}

System.out.println("Sum of digits of " + number + "
is " + sum);

}

}
```

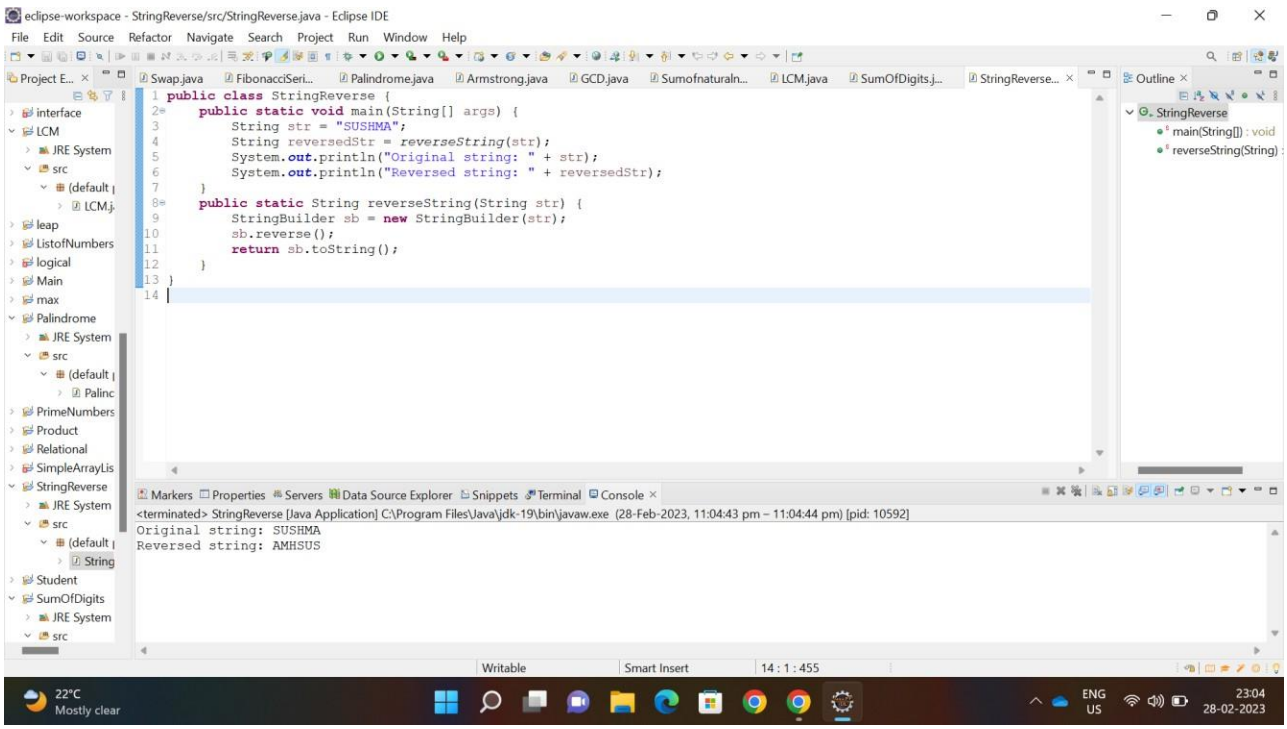


9. Write a Java program to reverse a string.

Code: https://codeshare.io/Ad1zne

```
public class StringReverse {

public static void main(String[] args) {

String str = "SUSHMA";

String reversedStr = reverseString(str);

System.out.println("Original string: " + str);

System.out.println("Reversed string: " +
reversedStr);

}

public static String reverseString(String str) {

StringBuilder sb = new StringBuilder(str);

sb.reverse();

return sb.toString();
```

```
}

}
```

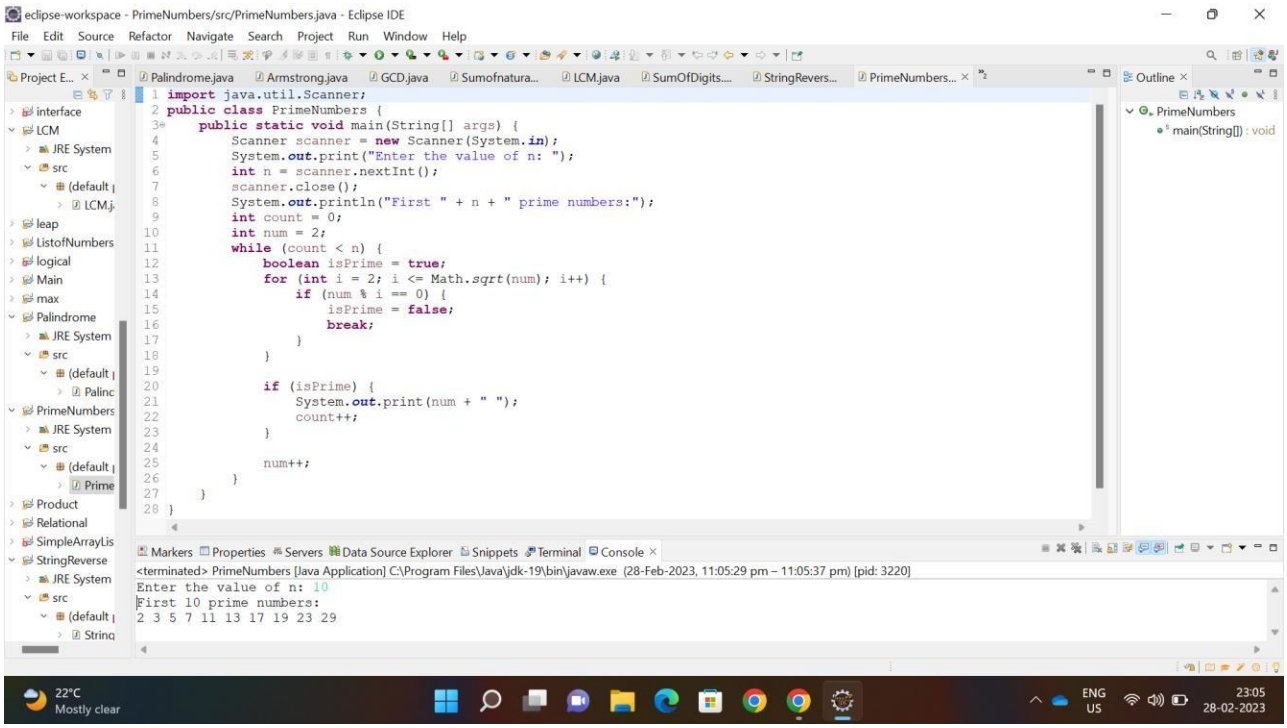


10. Write a Java program to print all the first n prime numbers where n will be given as input.

Code: https://codeshare.io/VZEQyz

```
import java.util.Scanner;

public class PrimeNumbers {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter the value of n: ");

int n = scanner.nextInt();

scanner.close();

System.out.println("First " + n + " prime numbers:");
```

```
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++;
}
}
}
```


eclipse-workspace - PrimeNumbers/src/PrimeNumbers.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Project E...
Palindrome.java
Armstrong.java
GCD.java
Sumofnatura...
LCM.java
SumOfDigits....
StringRevers...
PrimeNumbers...
Outline
PrimeNumbers
main(String[]) : void
interface
LCM
JRE System
src
leap
ListofNumbers
logical
Main
max
Palindrome
PrimeNumbers
Product
Relational
SimpleArrayLis
StringReverse
import java.util.Scanner;
public class PrimeNumbers {
public static void main(String[] args) {
Scanner scanner = new Scanner(System.in);
System.out.print("Enter the value of n: ");
int n = scanner.nextInt();
scanner.close();
System.out.println("First " + n + " prime numbers:");
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++;
}
}
}
Markers Properties Servers Data Source Explorer Snippets Terminal Console
<terminated> PrimeNumbers [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (28-Feb-2023, 11:05:29 pm – 11:05:37 pm) [pid: 3220]
Enter the value of n: 10
First 10 prime numbers:
2 3 5 7 11 13 17 19 23 29
22°C
Mostly clear
ENG
US
23:05
28-02-2023