

## Prime Numbers Error Log

Credit Name: CSE 2110 Procedural Programming 1

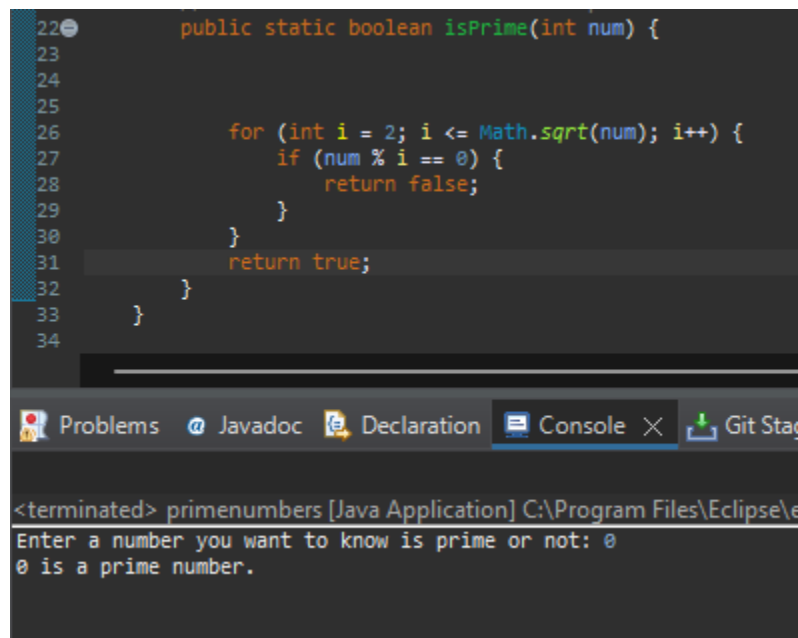
Assignment Name: Mastery Prime Numbers

Describe the errors you've encountered while working on this assignment. What caused the error and how do you overcome the error?

### Error

The error I had in this code was related to the numbers 1 and 0 (and negative numbers). These numbers are not prime, however, without something to explicitly say this in your code the program will output these as prime numbers. (as seen below)

Example for 0



```
22 public static boolean isPrime(int num) {  
23  
24  
25  
26     for (int i = 2; i <= Math.sqrt(num); i++) {  
27         if (num % i == 0) {  
28             return false;  
29         }  
30     }  
31     return true;  
32 }  
33  
34
```

Problems Javadoc Declaration Console × Git Stage

<terminated> primenumbers [Java Application] C:\Program Files\Eclipse\...  
Enter a number you want to know is prime or not: 0  
0 is a prime number.

Example for 1

```
22 public static boolean isPrime(int num) {
23
24
25     for (int i = 2; i <= Math.sqrt(num); i++) {
26         if (num % i == 0) {
27             return false;
28         }
29     }
30     return true;
31 }
32
33
```

Problems Javadoc Declaration Console × Git St

<terminated> primenumbers [Java Application] C:\Program Files\Eclipse\
Enter a number you want to know is prime or not: 1
1 is a prime number.

Example for negative numbers

```
22 public static boolean isPrime(int num) {
23
24
25     for (int i = 2; i <= Math.sqrt(num); i++) {
26         if (num % i == 0) {
27             return false;
28         }
29     }
30     return true;
31 }
32
33
```

Problems Javadoc Declaration Console × Git St

<terminated> primenumbers [Java Application] C:\Program Files\Eclipse\
Enter a number you want to know is prime or not: -4
-4 is a prime number.

To fix this I added an if statement that says if the number is less than or equal to one to return false to the main method (this will print the number is not prime). This accounts for all number 1 and under that can never be prime.

```
22 public static boolean isPrime(int num) {
23
24     if (num <= 1) return false;
25
26     for (int i = 2; i <= Math.sqrt(num); i++) {
27         if (num % i == 0) {
28
29             return false;
30         }
31     }
32     return true;
33 }
34 }
```

Problems Javadoc Declaration Console Git St

<terminated> primenumbers [Java Application] C:\Program Files\Eclipse\
Enter a number you want to know is prime or not: 0
0 is not a prime number.

Example for 0

```
22 public static boolean isPrime(int num) {
23
24     if (num <= 1) return false;
25
26     for (int i = 2; i <= Math.sqrt(num); i++) {
27         if (num % i == 0) {
28             return false;
29         }
30     }
31     return true;
32 }
33 }
```

Problems Javadoc Declaration Console Git St

<terminated> primenumbers [Java Application] C:\Program Files\Eclipse\
Enter a number you want to know is prime or not: 0
0 is not a prime number.

Example for 1

```
22 public static boolean isPrime(int num) {
23
24     if (num <= 1) return false;
25
26     for (int i = 2; i <= Math.sqrt(num); i++) {
27         if (num % i == 0) {
28             return false;
29         }
30     }
31     return true;
32 }
33 }
```

Problems Javadoc Declaration Console × Git St...

<terminated> primenumbers [Java Application] C:\Program Files\Eclipse  
Enter a number you want to know is prime or not: 1  
1 is not a prime number.

Example for negative number

```
22 public static boolean isPrime(int num) {
23
24     if (num <= 1) return false;
25
26     for (int i = 2; i <= Math.sqrt(num); i++) {
27         if (num % i == 0) {
28             return false;
29         }
30     }
31     return true;
32 }
33 }
```

Problems Javadoc Declaration Console × Git St...

<terminated> primenumbers [Java Application] C:\Program Files\Eclipse  
Enter a number you want to know is prime or not: -1  
-1 is not a prime number.