Reflection Log - PrimeNumbers [Mastery]

```java
package Mastery;

import java.util.Scanner;

public class PrimeNumbers {

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

        //Preparing for user input
        Scanner input = new Scanner(System.in);

        //Declaration
        int user_num; //user input
        int i; //for loop var
        boolean prime = false; //to check if prime or not

        System.out.println("Enter a number. This program will tell you if it is prime or not: ");
        user_num = input.nextInt(); //store number in variable
```

So far I prepared for user input, declared the variable to store the user's input number, and have prompted the user to enter their number. Along with that I declared a var for i which will be used later to check if the number is prime, and a boolean to check if prime is true or false.

```java
if (user_num == 1 || user_num == 0) //If the users i
{
    prime = true;

}


for (i = 2; i <= user_num / 2; ++i)
{
    if (user_num % i == 0) //if the remainder is 0,

    {
        prime = true;

    }
}

if (!prime) //if prime is not true
{
    System.out.print("Your number is prime.");
}
else //if prime is true
{
    System.out.print("Your number isn't prime.");
}
```

Now I check if the user inputted number is 1 or 0. If it is, prime is automatically true, and the output prints that your number is prime. From there I start a for loop which takes the earlier defined int variable of i, and puts it as

2. This for loop will take the inputted number and divide it by all numbers between that number and 2 while checking for a remainder. If the remainder is 0, that means the number isn't prime. Then I print to the output screen using the boolean variable to check whether the number is prime or not.