Lab Assignment 01

HOMEWORK

Task 1

Write a java program that takes 2 integer numbers as input and calculates how many prime numbers exist between them.

Sample Input	Sample Output
10 15	There are 2 prime numbers between 10 and 15.
150 100	There are 10 prime numbers between 100 and 150.

Task 2

Write a Java program that takes a string input in small letters from the user and prints the previous alphabet in sequence for each alphabet found in the input.

Sample Input	Output
wxyz	vwxy
thecow	sgdbnv
abcd	zabc

Task 3

Write a Java program that will take an integer number N from the user and create an integer array by taking N numbers from the user. Print how many times each number appears in the array.

Sample Input	Sample Output
N = 5 6 15 14 15 6	6 - 2 times 15 - 2 times 14 - 1 times
N = 6 -5 10 14 10 -7 10	-5 - 1 times 10 - 3 times 14 - 1 times -7 - 1 times

Task 4

Design the **CSECourse** class to generate the correct output from the driver code provided below:

Driver Code	Output

`public class CourseTester{`
`  public static void main(String args []){`
`  CSECourse c1 = new CSECourse();`
`  System.out.println("Course Name: "+c1.courseName);`
`  System.out.println("Course Code: "+c1.courseCode);`
`  System.out.println("Credit: "+c1.credit);`
`  }`
`}`
	`Course Name: Programming Language II`
	`Course Code: CSE111`
	`Credit: 3`

Task 5

Consider the following class:

```
public class Student{
    public String name;
    public double cgpa;
}
```

Show the output of the following sequence of statements:

	Output
`Student s1 = new Student();`	
`Student s2 = new Student();`	
`Student s3 = null;`	
`s1.name = "Student One";`	
`s1.cgpa = 2.3;`	
`s3 = s1;`	
`s2.name = "Student Two";`	
`s2.cgpa = s3.cgpa + 1;`	
`s3.name = "New Student";`	
`System.out.println(s1.name);`	
`System.out.println(s2.name);`	
`System.out.println(s3.name);`	
`System.out.println(s1.cgpa);`	
`System.out.println(s2.cgpa);`	
`System.out.println(s3.cgpa);`	
`s3 = s2;`	
`s1.name = "old student";`	
`s2.name = "older student";`	
`s3.name = "oldest student";`	
`s2.cgpa = s1.cgpa - s3.cgpa + 4.5;`	
`System.out.println(s1.name);`	
`System.out.println(s2.name);`	
`System.out.println(s3.name);`	
`System.out.println(s1.cgpa);`	
`System.out.println(s2.cgpa);`	
`System.out.println(s3.cgpa);`	