**Assignment#2 (OOP in JAVA)**

**Total marks 50 (each question carries 10 marks)**

1. Write a Java program to test if a given string contains the specified sequence of char values

*Expected Output*:  
String: This is object-oriented analysis and object-oriented programing exercise

*Specified sequence of characters*: and

*Result*: True

1. Write a Java program to replace each substring of a given string that matches the given regular expression with the given replacement.

S*ample string : "The quick brown fox jumps over the lazy dog."*

*In the above string replace all the fox with cat.*

*Sample Output:*

*Original string: The quick brown fox jumps over the lazy dog.*

*New String: The quick brown cat jumps over the lazy dog.*

1. Write a Java method to find all twin prime numbers less than 100

Expected Output:

(3, 5)

(5, 7)

(11, 13)

(17, 19)

(29, 31)

(41, 43)

(59, 61)

(71, 73)

1. Write a program that accepts three numbers from the user and prints "increasing" if the numbers are in increasing order, "decreasing" if the numbers are in decreasing order, and "Neither increasing or decreasing order" otherwise.

Test Data  
Input first number: 1524  
Input second number: 2345  
Input third number: 3321

Expected Output :

Increasing order

1. Write a Java program to print all the LEADERS in the array.      
   Note: An element is leader if it is greater than all the elements to its right side.

Sample input: arr[] = {10, 9, 14, 23, 15, 0, 9};

Expected output: 23 15 9