

## Object Oriented Systems Lab

### Assignment 1

1. Write a Java program to find the factorial of a given number.
2. Write a Java program to implement a simple version of a binary search algorithm.
3. Write a Java program to read the name and roll number of 'n' students and sort the list based on roll number.
4. Write a Java program to check if a vowel is present in a string.
5. You are developing a Java application for a text processing tool. One of the features of this tool is the ability to reverse any given string input by the user. Your task is to implement this feature.
6. Write a java program to create a fibonacci series
7. Write a java program to Menu driven program using switch statement ( Find addition, subtraction, multiplication and division of to integer numbers ).
8. Write a java program to implement the transpose of a 2-d matrix. Let  $A_{m \times n}$  be a matrix, find the transpose of  $A_{m \times n}$  and store the result in  $B_{n \times m}$ .
9. Write a java program to find the frequency of each character in the word.
10. Create a Java program that swaps two strings without using a third variable.