## **Lesson 4 – Recursion - Lab Homework**

## Find the solutions for the given problem using recursive approach.

1. Using recursion to find the minimum character in the given string input.

If your input is "akel" in return 'a'

2. Write a recursive solution for reversing the given n elements of an array. Do not use auxiliary array to store the results. Work only with the given array to reverse. Think about the method signature and the arguments. If you want, you can have public utility method with and private recursive method. Inputs are not necessarily in sorted order.

Before Reverse: [1, 3, 5, 7, 9, 13] After Reverse: [13, 9, 7, 5, 3, 1]

3. Write a recursive solution to check whether the given number is Palindrome or not. You can have public utility method and private a recursive method. Return a boolean value. **Do not convert your input to String. Solve it as only using int type to check a Palindrome number.** 

Example: If you input an int value 121 – return true

If your input is negative return false.

If the input is 102 return false.

- 4. Write a recursive solution to return max value from the given array. Example: [5, -3, 6, 1, 9, 4], Max = 9
- 5. Perform JUnit testing for any two problems from 1 to 4.

## **Interview Practice**

Try individually the Interview problems from leetcode.com, Neet code, or Hacker Rank at least two problems related to Arrays, Strings and Math problems using Recursion. You can talk about your logic with your class members. Not necessary to submit.