# List of Lab Tasks

SE 132 Data Structure Lab

#### **Assessment 1:**

- 1.1 Insert two numbers sequentially at the last position in an array by using variables.
- 1.2 Insert two numbers at two different positions in an array by using variables.

#### **Assessment 2:**

2.1 Suppose you have an array with some elements. Now Find out two elements and delete them if they exist. If not exist any one or both of them, then print "This element can not be deleted as it does not exist".

#### **Assessment 3:**

3.1 Apply binary search to find out an element and delete the element.

#### Assessment 4:

4.1 Suppose there is an array with any 10 elements. Now apply binary search and Linear search both and decide which one mechanism is best for finding that specific element.

#### Assessment 5:

- 5.1. Write down a C program, which can apply binary search to any character data whether the elements may be in the sorted or unsorted form (i.e. array will contain some "characters"s as data and they are in unsorted order). If unsorted then sort all the data in descending order.
- 5.2 Write down a C program to Sort all the data in Descending Order

#### **Assessment 6:**

6.1 Suppose you have an array, which can contain 5 characters. First insert 3 characters, then

delete one character, then insert 2 character, then delete one character, then insert two character, then delete one character, then insert one character, Now print the entire array in reverse order, so that it prints: "mango". Then if you want to insert one more character, then it should print "Don't overflow".

## **Assessment 7:**

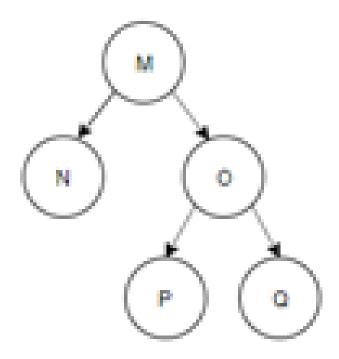
7.1 Create a linked list. Already it is given in the course materials. Now insert one new element in last position and print the all data of the linked list.

#### **Assessment 8:**

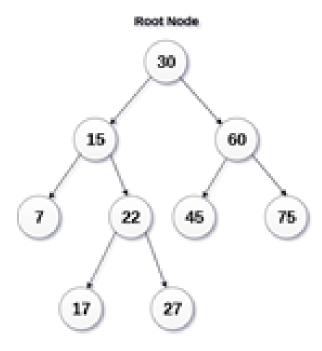
8.1 Implement the code of "Queue" as given, rewrite it by using Structure.

## **Assessment 9:**

9.1 Construct a tree as follows



# 9.2 Construct a Tree as follows:



**Binary Search Tree**