CSE2003 Assigment

The purpose of the assignment is to improve problem solving skills of the student with different types of Data Structures and Algorithms. Students have to submit a handwritten document for this assignment. Originality in expressing your ideas, through this assignment, is highly appreciated and will be suitably rewarded also. The usual `copy-paste' submission is highly discouraged. This assignment carries 10 marks.

List of Data Structures: Array, Stack, Queue, Linked List, Tree and Graph.

List of Design techniques: Divide and Conquer, Brute-Force, Dynamic Programming.

You should answer the following things for every data structure and design technique.

1. Problem description
2. Decide an efficient data structure for the problem with the reasons
3. Design technique used for developing the algorithm with reasons.
4. Pseudo code/algorithm.
5. Computation of time complexity.

- You have to describe a problem for each of the data structures and design techniques. Your answer should have all the details (item 1-5) mentioned above.

- Either you describe one problem for discussing all the above design Techniques (or data structures) or describe a problem for each of the design techniques (or data structures) with all the required descriptions.