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Sr. No.	Title
1	Consider telephone book database of N clients. Make use of a hash table implementation to quickly look up client's telephone Number. Make Use of two Collision Techniques and Compare them using number of Comparisons required to find a set of telephone numbers.
2	For given set of elements create skip list. Find the element in the set that is closest to some given value. (note: Decide the level of element in the list Randomly with some upper limit)
3	A book consists of chapters, chapters consist of sections and sections consist of subsections. Construct a tree and print the nodes. Find the time and space requirements of your method.
4	Beginning with an empty binary search tree, Construct binary search tree by inserting the values in the order given. After constructing a binary tree - i. Insert new node ii. Find number of nodes in longest path from root iii. Minimum data value found in the tree iv. Change a tree so that the roles of the left and right pointers are swapped at every node v. Search a value
5	Convert given binary tree into threaded binary tree. Analyze time and space complexity of the algorithm.
6	Represent a given graph using adjacency matrix/list to perform DFS and using adjacency list to perform BFS. Use the map of the area around the college as the graph. Identify the prominent land marks as nodes and perform DFS and BFS on that.

7	You have a business with several offices; you want to lease phone lines to connect them up with each other; and the phone company charges different amounts of money to connect different pairs of cities. You want a set of lines that connects all your offices with a minimumtotal cost. Solve the problem by suggesting appropriate data structures
8	A Dictionary stores keywords & its meanings. Provide facility for adding new keywords, deleting keywords, updating values of any entry. Provide facility to display whole data sorted in ascending/Descending order. Also find how many maximum comparisons may require for finding any keyword.Use Height balance tree and find the complexity for finding a keyword
9	Implementation of a direct access file -Insertion and deletion of a record from a direct access file
10	Department maintains a student information. The file contains roll number, name, division and address. Allow user to add, delete information of student. Display information of particular employee. If record of student does not exist an appropriate message is displayed. If it is, then the system displays the student details. Use sequential file to main the data