

Design and Analysis of Algorithms

Lab Experiments

1. Develop a program and measure running time for Binary Search using Divide and Conquer
2. Develop a program and measure running time for Merge Sort using Divide and Conquer
3. Develop a program and measure running time for Quick Sort using Divide and Conquer
4. Develop a program and measure running time for estimating Minimum-Cost Spanning Tree using Greedy Method
5. Develop a program and measure running time for estimating Single Source Shortest Paths using Greedy Method
6. Develop a program and measure running time for constructing Optimal Binary Search Trees using Dynamic Programming
7. Develop a program and measure running time for solving Traveling Salesperson Problem using Dynamic Programming
8. Develop a program and measure running time for solving 8-Queens Problem using Backtracking
9. Develop a program and measure running time for Graph Coloring using Backtracking
10. Develop a program and measure running time to generate solution for Hamiltonian Cycle problem using Backtracking
11. Develop a program and measure running time to generate solution for Knapsack problem using Backtracking