Experiment 17-18

Objective: To implement Dynamic Programming based algorithm for solving the Longest Common Subsequence (LCS) Problem and Backtracking based algorithm for solving N-queens problem.

Brief Theory:

LCS Problem: You are given two strings. You need to find the longest subsequence common to both the strings, where the subsequence does not need to be contiguous.

N-queens Problem: Given an N×N chess board you need to place N queens in such a way that no two queens are in the same row, same column or same diagonal.

Task: 1) Write a program to solve the LCS problem.

Task: 2) Write a program to solve the N-queens problem.

Apparatus and components required: Computer with C or C++ Compiler and Linux platform.

Experimental/numerical procedure: Coding, compilation, editing, run and debugging.

Observation table and calculations based on observations: Not Applicable.