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**SUBJECT**: PAI-LAB-TASK4

**N-QUEEN PROBLEM**

This code is solving the N-Queens problem, which means placing N queens board so that no two queens can attack each other queen can move vertically, horizontally, and diagonally, so we need to place them carefully. The code first checks if placing a queen in a certain position is safe by looking at the column and both diagonals. If it's safe, the queen is placed there, and the program moves to the next row to place another queen. If all queens are placed successfully then the board print 'Q' for queens and '.' for empty spaces. If no solution is possible then it will prints solution does not exist and then if the solution is possible then it will print solution exist. This code runs for 6 number of queens its means that place 6 queens on a 6×6 board.

**Output**

