1. **What is the N-Queens problem?**

   A: The N-Queens problem is a classic problem in combinatorial optimization. It involves placing N queens on an N×N chessboard such that no two queens threaten each other. This means that no two queens share the same row, column, or diagonal.

2. **What is the purpose of the `is_safe` function in the code?**

   A: The `is_safe` function is used to check if it's safe to place a queen at a given position on the chessboard. It verifies whether there is any queen already placed in the same column or in any diagonal (upper left and upper right) of the current position.

3. **Explain the purpose of the `solve_n_queens_util` function.**

   A: The `solve_n_queens_util` function is a recursive function that tries to solve the N-Queens problem by backtracking. It iterates over each column in a given row, checks if it's safe to place a queen in that position, and if so, places the queen and recursively calls itself for the next row. If a solution is found, it returns `True`; otherwise, it backtracks and tries different positions.

4. **What is the role of the `solve_n_queens` function?**

   A: The `solve_n_queens` function initializes the chessboard and starts the solving process by calling the `solve_n_queens_util` function with the initial row set to 0. If no solution is found, it prints a message indicating that no solution exists.

5. **How does the program represent the chessboard internally?**

   A: The program represents the chessboard as a 2D list (`board`) where each element represents a cell on the chessboard. A value of 1 at a particular cell indicates the presence of a queen, while 0 indicates an empty cell.

6. **Explain the algorithm used to solve the N-Queens problem.**

   A: The program uses a backtracking algorithm to solve the N-Queens problem. It starts by placing a queen in the first row and recursively tries to place queens in subsequent rows, ensuring that no two queens threaten each other. If a queen cannot be placed in a row, it backtracks and tries a different position in the previous row until a solution is found or all possibilities are exhausted.

7. **What happens if there is no solution to the N-Queens problem?**

   A: If there is no solution to the N-Queens problem, the program will print a message stating "Solution does not exist" after attempting to solve the problem.