**Programming for AI (LAB)**

**Task 4**

|  |  |
| --- | --- |
| **Name** | **Sania Asim** |
| **Roll No** | **037** |
| **Class** | **BSAI-4A** |
| **Submitted to** | **Sir Rasikh** |

**N-Queens Problem:**

The N-Queens problem is a classic combinatorial puzzle where the goal is to place N queens on an N x N chessboard such that no two queens attack each other. For a 6x6 chessboard, this means placing 6 queens so that none of them are on the same row, column, or diagonal.

**Key Constraints:**

* **Rows:** Each queen must be in a different row.
* **Columns:** Each queen must be in a different column.
* **Diagonals:** No two queens can be on the same diagonal.