2.N-QUEENS

```
#include <stdio.h>
#include <stdlib.h>

int board[10], count = 0;

int place(int row, int col) {
   for (int i = 1; i < row; i++) {
      if (board[i] == col || abs(board[i] - col) == abs(i - row))
         return 0;
   }
   return 1;
}

void solve(int row, int n) {
   for (int col = 1; col <= n; col++) {
      if (place(row, col)) {
         board[row] = col;
         if (row == n) {
            count++;
            for (int i = 1; i <= n; i++)
               printf("%d ", board[i]);
            printf("\n");
         } else {
            solve(row + 1, n);
         }
      }
   }
}

int main() {
```

```
    int n;

    printf("Enter the value of N: ");
    scanf("%d", &n);

    solve(1, n);

    printf("Total solutions: %d\n", count);

    return 0;
}
```