**Task 1**

Modify the heuristic function in the provided A\* and Greedy Best-First Search algorithms to use the number of misplaced tiles instead of the Manhattan distance. Run the programs using both heuristic functions (Manhattan distance and number of misplaced tiles) and generate a report comparing their performance. The report should focus on which algorithm is optimal in terms of the number of steps and the cost of the path.

**Task 2**

Apply both the A\* and Greedy Best-First Search algorithms to solve a maze. Generate and compare the paths obtained by both algorithms.

**Task 3**

Draw the graph of Six Degrees of Kevin Bacon using small dataset