**Trần Tùng Lâm – 21127337 – 21CLC08**

**Checklist:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Algorithm | Explored path | Returned path | Time escape | Brief Description |
| BFS | ✓ | ✓ | ✓ | Using queue to implement |
| DFS | ✓ | ✓ | ✓ | Using recursion |
| UCS | ✓ | ✓ | ✓ | Using priority queue with priority based on the weight (default = 1) |
| GBFS | ✓ | ✓ | ✓ | Using priority queue with prioiry based on heuristic |
| A\* | ✓ | ✓ | ✓ | Using priority queue with prioiry based on heuristic + cost\_so\_far |

**Brief description of main functions:**

1. List out available mazes test files (\*.txt)
2. Enter the filename to view result (without .txt ext)
3. Run all the functions such as readMazeFromFile, bfs, dfs, ucs, gbfs, a\_star
4. Print out the result includes:
   1. Explored path
   2. Returned path
   3. Time escape
   4. For GBFS and A\*, f(n) and h(n) value is also being printed for better observation