

NATIONAL UNIVERSITY OF SCIENCES AND TECHNOLOGY

School of Mechanical and Manufacturing Engineering

Artificial Intelligence (CSE-860) ASSIGNMENT# 02

SUBMITTED TO: Dr Yasar Ayaz

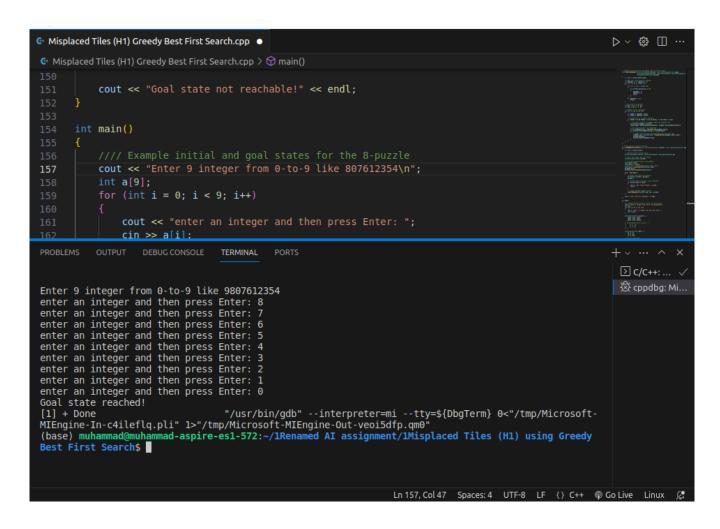
SUBMITTED BY: Muhammad Saqib

Roll No. 482486

PROGRAMME PhD-RIME

Date of Submission: 18 Sep, 2023

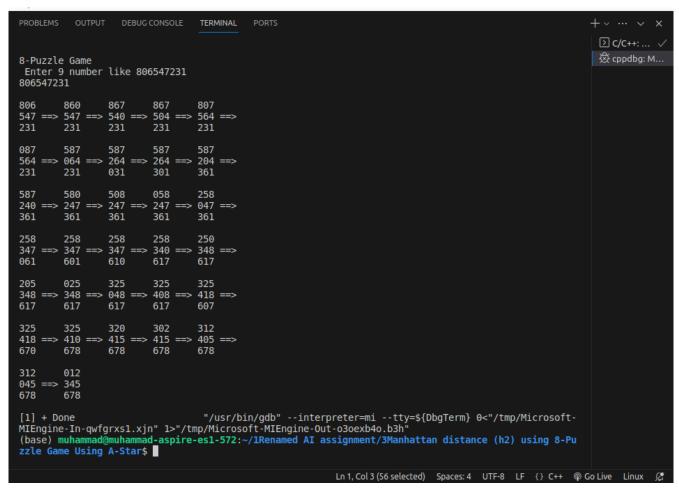
Task 1 Output: Misplaced Tiles (H1) Greedy Best First Search



Task 2 Output: Manhattan distance (H2) Greedy Best First Search

```
manhattan distance (h2) Using Greedy Best Frist Search.cpp X
                                                                                                         ▷ ∨ ∰ Ⅲ …
© manhattan distance (h2) Using Greedy Best Frist Search.cpp > ☆ main()
               exploreNeighbors(current, goal, pq, visited);
           cout << "Goal state not reachable!" << endl;</pre>
       int main() {
          OUTPUT DEBUG CONSOLE TERMINAL
                                                                                                           滋 cppdbg: m...
Enter 9 integer from 0-to-9 like 807612354
enter an integer and then press Enter: 8
enter an integer and then press Enter: 7
enter an integer and then press Enter: 6
enter an integer and then press Enter: 5
enter an integer and then press Enter: 4
enter an integer and then press Enter:
enter an integer and then press Enter: 2
enter an integer and then press Enter: 1
enter an integer and then press Enter: 0
Goal state reached!
                                  "/usr/bin/gdb" --interpreter=mi --tty=${DbgTerm} 0<"/tmp/Microsoft-
MIEngine-In-zq3bvuxw.ue4" 1>"/tmp/Microsoft-MIEngine-Out-2guiqyuc.spw"
(base) muhammad@muhammad-aspire-es1-572:~/lRenamed AI assignment/2Manhattan distance (h2) Using Gree
dy Best Frist Search$ [
                                                                 Ln 144, Col 57 Spaces: 4 UTF-8 LF {} C++ @ Go Live Linux &
```

Task 3 Output: Manhattan distance (H2) A* Search Algorithm



Task 4 Output: Misplaced Tiles (H1) A* Search Algorithm

