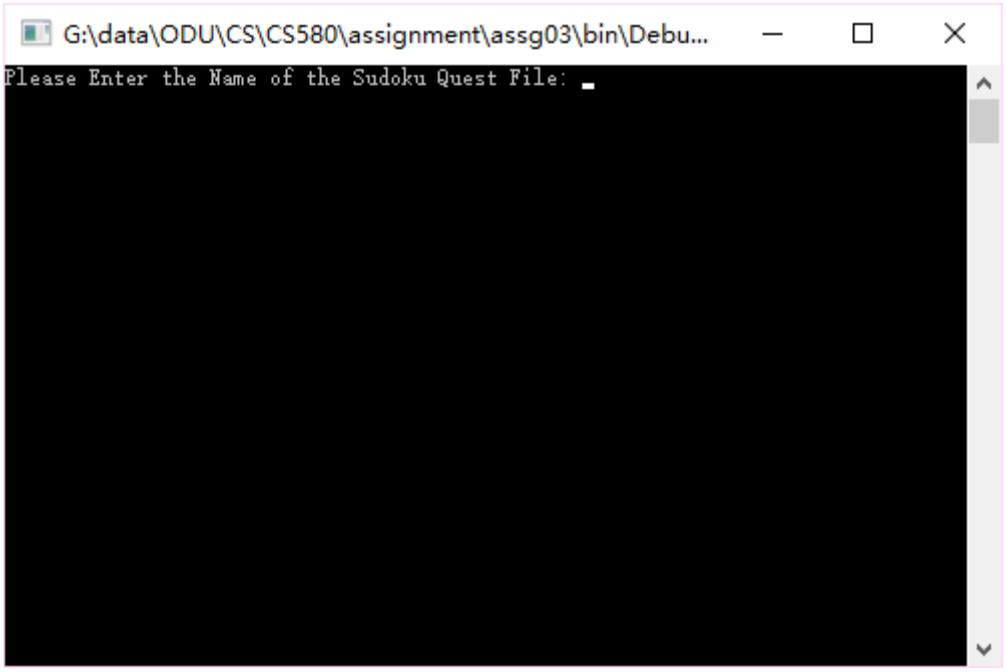
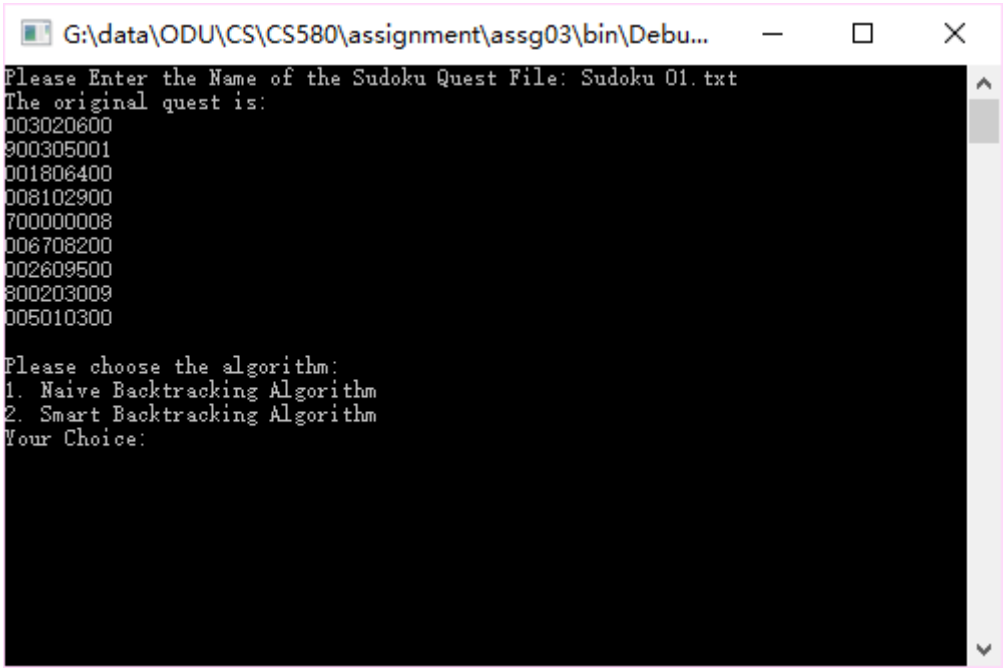
Execution

1. Please copy the Sudoku Quest files into the program directory (\assg03\).
2. When you run the program, first you will be asked to input the name of Sudoku Quest file. Please enter the full name of the file (e.g. Sudoku 01.txt).

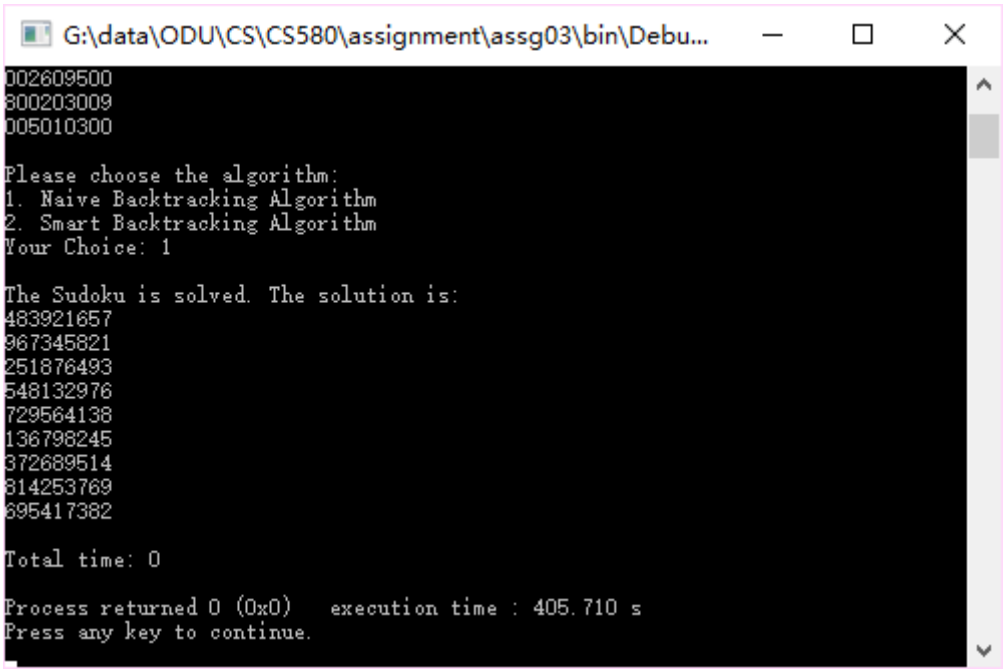


3. Once you enter the name of the Sudoku quest file, it will display the initial state of the quest. Then you will be asked to choose the algorithm.

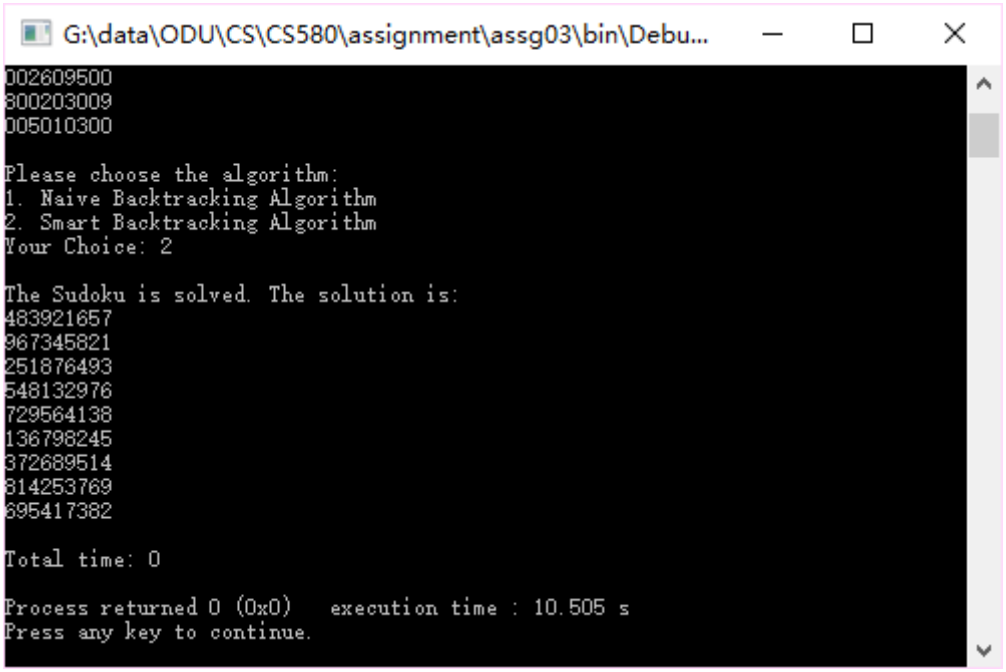


4. You can only choose the algorithms listed in the menu by entering the number in the beginning.

4.1 If you choose the Naïve Backtracking Algorithm, the program will solve the quest by naïve way. Then it will display the solution and total time spent, or it will display failure message if there is no solution.



4.2 If you choose the Smart Backtracking Algorithm, the program will solve the quest using MRV and Forward Checking. Then it will display the solution and total time spent, or it will display failure message if there is no solution.



Analysis

In my program, I tried several quests of different levels. There is nearly no difference between the 2 algorithms. Almost every quest can be solved in less than 1 second by each algorithm.