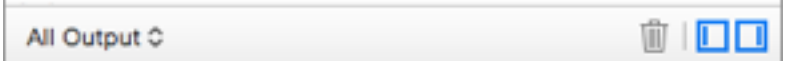
User Manual:
Program: testKnight.cpp
The program is a cpp file that create a Sudoku puzzle for you to play with. To run this program, double click on the file testKnight.cpp by a compiler and run. A console window will appear and start running. And the chessboard will show after the program finished. To play with this knight game, you can edit the size of the chessboard and the origin position of the chess, it can be any size and start at any position. The program will automatically calculate the solution of the chessboard. The numbers in the cell are the steps of the solution. It always start from 0.

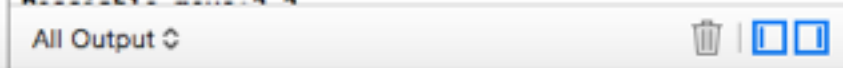
System manual:
Program: testKnight.cpp
This program include a class file and a implement file. The private data in the head file is a vector of vectors, one vector and two integers. The alternative constructor can initialize the size of the chessboard. The getMove method can return a list that the position can be moved to. The voyageingKnight method is a recursive function that calculate the solution of the chessboard. It return true if the single move is successful, it return false when there is no available movement. Finally it call itself to finish the recursion

Sample runs:

```
- - -
- - -
- 0 -
- - -
Possiable move:1 1
Possiable move:1 3
1 - -
- - -
- 0 -
- - -
Possiable move:2 3
- - -
- - -
- 0 -
- - -
Possiable move:1 1
Possiable move:1 3
1 - -
- - -
- 0 -
- - -
Possiable move:2 3
1 - -
- - 2
- 0 -
- - -
Possiable move:3 1
Possiable move:4 2
1 - -
- - 2
3 0 -
- - -
Possiable move:1 2
Possiable move:4 3
1 4 -
- - 2
3 0 -
- - -
Possiable move:3 3
1 4 -
- - 2
3 0 5
- - -
Possiable move:2 1
Possiable move:4 1
1 4 -
6 - 2
3 0 5
- - -
Possiable move:1 3
Possiable move:4 2
1 4 7
6 - 2
```



```
- - - - -
- - - - -
- 0 - - -
- - - - -
- - - - -
Possiable move:1 1
Possiable move:1 3
Possiable move:2 4
Possiable move:4 4
Possiable move:5 1
Possiable move:5 3
1 - - - -
- - - - -
- 0 - - -
- - - - -
- - - - -
Possiable move:2 3
1 - - - -
- - 2 - -
- 0 - - -
- - - - -
- - - - -
Possiable move:1 5
Possiable move:3 1
Possiable move:3 5
Possiable move:4 2
Possiable move:4 4
1 - - - 3
- - 2 - -
- 0 - - -
- - - - -
- - - - -
Possiable move:3 4
1 - - - 3
- - 2 - -
- 0 - 4 -
- - - - -
- - - - -
Possiable move:1 3
Possiable move:2 2
Possiable move:4 2
Possiable move:5 3
Possiable move:5 5
1 - 5 - 3
- - 2 - -
- 0 - 4 -
- - - - -
- - - - -
Possiable move:2 1
Possiable move:2 5
1 - 5 - 3
6 - 2 - -
- 0 - 4 -
- - - - -
- - - - -
```



```
- - - - - -
- - - - - -
- 0 - - - -
- - - - - -
- - - - - -
- - - - - -
Possiable move:1 1
Possiable move:1 3
Possiable move:2 4
Possiable move:4 4
Possiable move:5 1
Possiable move:5 3
1 - - - - -
- - - - - -
- 0 - - - -
- - - - - -
- - - - - -
- - - - - -
Possiable move:2 3
1 - - - - -
- - 2 - - -
- 0 - - - -
- - - - - -
- - - - - -
- - - - - -
Possiable move:1 5
Possiable move:3 1
Possiable move:3 5
Possiable move:4 2
Possiable move:4 4
1 - - - 3 -
- - 2 - - -
- 0 - - - -
- - - - - -
- - - - - -
- - - - - -
Possiable move:3 4
Possiable move:3 6
1 - - - 3 -
- - 2 - - -
- 0 - 4 - -
- - - - - -
- - - - - -
- - - - - -
Possiable move:1 3
Possiable move:2 2
Possiable move:2 6
Possiable move:4 2
Possiable move:4 6
Possiable move:5 3
Possiable move:5 5
1 - 5 - 3 -
- - 2 - - -
- 0 - 4 - -
- - - - - -
- - - - - -
```