
▶ Exercise

- ▶ i 學園繳交作業於今日 23:59 前
分數打八折



課程小助教 (+5%)

- ▶ 第一排：蕭名哲 110310105
- ▶ 第二排：林晟彥 110310114
- ▶ 第三排：謝旻烜 110310128
- ▶ 第四排：劉千榮 110310138
- ▶ 第五排：盧楷勛 110310144
- ▶ 第六排：盧奕帆 107310217
- ▶ 游 擊：張兆欣 107310217
- ▶ 蔡瑋傑 110310123
- ▶ 吳孟容 110310122



Exercise1 Tic Tac Toe

- ▶ The object of Tic Tac Toe is to get three in a row. You play on a three by three game board. The first player is known as X and the second is O. Players alternate placing X and O on the game board until either opposition has three in a row or all nine squares are filled.

Use the format:

```
struct Node {
    int moveNumber;
    char board[9];
    Node *nextPtr;
};

void displayList( Node *head);

int main() {
    char board[9];
    for (int i = 0; i < 9; i++)
        board[i] = ' ';

    Node* head = NULL;    // head of linked list
    Node* tempPtr;

    int moveNumber = 0;
    char turn = 'X';
    int cell = 0;
    displayBoard(board); //displays the empty board
```

result:

```
*****
Move number: 6
TURN: X make your move: 8

| O | | O |
|_  | |_  |
|_  | |_  |

| O | | X |
|_  | |_  |
|_  | |_  |

| X | | X |
|_  | |_  |
|_  | |_  |
Congratulations player X ,You win!!
```

Exercise1 Tic Tac Toe

Game process:

```
*****
Move number: 5
TURN: 0 make your move: 3

List contains:

| 0 |   | 0 |
|___|___|___|
| 0 | X |   |
|___|___|___|
| X |   | X |
|___|___|___|
Move Numer: 5

| 0 |   |   |
|___|___|___|
| 0 | X |   |
|___|___|___|
| X |   | X |
|___|___|___|
Move Numer: 4

| 0 |   |   |
|___|___|___|
| 0 | X |   |
|___|___|___|
|   |   | X |
|___|___|___|
Move Numer: 3
```

```

| 0 |   |   |
|___|___|___|
|   | X |   |
|___|___|___|
|   |   | X |
|___|___|___|
Move Numer: 2

| 0 |   |   |
|___|___|___|
|   | X |   |
|___|___|___|
|   |   |   |
|___|___|___|
Move Numer: 1

|   |   |   |
|___|___|___|
|   | X |   |
|___|___|___|
|   |   |   |
|___|___|___|
Move Numer: 0
```

※For every move a record must appended to the linked list and the whole list must be displayed on screen.

Each record of the linked list must represent one move and contain the updated board after the move is made and the move number.



Wk16_tictactoe.txt

