# COMP10050 Assignment2 Description

Nan Wu 18210184

To achieve this assignment, some information are initialised at the beginning. Two enum types are used, colour can be red, green or NULL and square type can be valid or invalid. Three struct types are used then. Players are initialised with its number, colour, own (get its colour tokens) and capture (get others colour tokens). Square including its type, number of pieces and a pointer to its top piece. Piece is with its colour and a pointer to next one. Then, 'initialize_board' function is built to initialise the board, including mark its invalid squares and the colour of each valid square.

Each player is required to enter its name before the game. Then, there is a unlimited loop to process the game. Player_num which can only be 0 or 1, is used here to represent each player. 'print_board' function prints the board before every round of the game.

'Move' function is to move the piece or stack. Here, 'choice' function let players can choose to move a piece/stack or put a new one. If the player want to put a new one, 'loc2' function ask the player enter the location to put and 'put' function put a single piece there. If this player do not have any piece left, it will change to move a piece/stack automatically.

If the player choose to move a piece/stack automatically. 'loc1' function is here to ask the player enter the location of token want to move from and 'direction' function ask the direction (up/down/left/right). In this two functions, if player enter a location/direction which is unreachable, system can alert and tell players the specific invalid reason and ask player to enter again.

'Move_stack' function move one piece/stack to another piece/stack, and pieces are removed from the bottom of the stack to keep its size equal or less to 5. All the stack removed are recovered in own and capture.

Last, 'check' function is used to check if player lost the game, if it is, the game ends, if not, the next round will begin until there is a player who lose the game.