**Design Report**

User manual

1. Run 100087252\_Ang.exe.
2. Enter first name.
3. Goal of the game: get to the bottom right number with the ‘| (number) |’ pattern.
4. Along the way, get as many points as possible by “walking” towards the number of your choice.
5. Try to get the most points as possible.
6. Good luck and have fun.

Program design

The program is design with a main function and 6 sub functions. Most of the processes will be handled by the sub functions whereas the main function will only initialise variables, acquire first name of player, print outputs and call functions. The program also has a struct type variable named “gameData”. This would contain 6 variables with 2 different data types. While the main function only has input, output and a while-loop, the remaining functions contain if-else statements, while loops and for loops. Some of the functions involve opening, reading, editing and closing an external text file named “records.txt”. Some too involve generating arrays and manipulating them. One of the functions also include generating random numbers for an array. There is also a function that allows the player to replay the game or not, based on their selection. Pointers are also included in the program design to ensure smooth flow of variable transfers.

Additional features:

The player is given an option to save their data (name and score). After that, the player can choose either they would like to try the game again or quit. If-else statements, while-loops, and some extra variables are used for this additional feature to work.