

Assignment 1 – 15%

DEADLINE: 15 June 2018

You are required to develop a “Numbers Matching Game” using Python 3, where the game allows users to:

- a) Start a game:
Generate a random 10 pairs of numbers (0 to 9) and hide the numbers using “ * ” character.
- b) Display the top 10 scores:
List the top 10 player names and their scores in order.
- c) Delete the top 10 scores list:
Delete the top 10 scores list.
- d) Exit game:
Display “Thank you and see you next time”.

The game procedures and protocols are:

- 1) User enters the first set of coordinates, for example: “B, 2”. The board then reveals the number at the location (i.e., coordinates) entered by the user.
- 2) User enters the second set of coordinates, for example: “C, 5”.
- 3) If the numbers revealed at the two locations from steps i and ii match, then the numbers revealed will remain visible to the user throughout the game, else both numbers will be hidden again (back to “ * ” character).
- 4) The game will end once the user has matched all 10 pairs of numbers by performing steps i and ii repetitively.
- 5) Once the game is ended, user’s score will be displayed. The score is calculated based on the time taken to complete the “Numbers Matching Game”.
- 6) If the score obtained is within the top 10 places, the user is required to input their name, and the score list will be updated accordingly.

Initial state of the game board should look as follows:

	1	2	3	4	5
A	*	*	*	*	*
B	*	*	*	*	*
C	*	*	*	*	*
D	*	*	*	*	*

Enter: **B, 2**

	1	2	3	4	5
A	*	*	*	*	*
B	*	4	*	*	*
C	*	*	*	*	*
D	*	*	*	*	*

Enter: **C, 5**

	1	2	3	4	5
A	*	*	*	*	*
B	*	4	*	*	*
C	*	*	*	*	4
D	*	*	*	*	*

Notes:

You are allowed to have variances of display design, arrangement or style, as long as it fulfilled the game requirement as stated above.

Your code will be marked on correctness, clarity, efficiency, and appropriate comments within the program.

The electronic submission via eLearn consists of the following files:

- One compressed file which comprised of your game's source code. Please name the compressed file *cw1_game*.
- One PDF file for the filled cover page. Please name the file *cw1_cover*.

Please upload them as a single compressed file, and name the compressed file *cw1_group#* (e.g. *cw1_group77*). Submission must be done by group leader only. Duplicate submission by other members will not be graded.