EEE101 C Programming and Software Engineering 1

ASSESSMENT 4 - Hints

EXERCISE 1 (5 POINTS OUT OF 10)

Hints:

- You are being asked to use a 2D array, declared locally inside function main, to contain account information. Think about what kind of values will be stored and the fact that they all need to be of the same type (i.e. the account value should be a real number not an integer)
- To make the program operational you should initialize this array with the information for the 5 accounts (A table displaying the initialized values should be quoted in your report so that we can run your code easily.)
- To process the information in the array you are asked to send it to a function. That mean sending a 2D array to a function which requires the use of pointers (see the lecture notes on sending 2D arrays to functions)
- The menu could be created using a switch function.
- Initially, in order to get the program to function correctly, you might want to declare the array as global. Once the functionality is correct the implementing it with local variables and arrays can be attempted.

EXERCISE 2 (5 POINTS OUT OF 10)

Hints

- You need to fill a 2D array with random pairs of characters. First, see how you can generate a 1D array with 8 random ASCII characters. These can be copied double the number of each.
- Some ASCII characters are not appropriate for use. Also, you will need one character to use in the display matrix so this should be avoided (see the example below).
- After you have an array with the 8 pairs of random characters you can see how to randomize their order in 1D, this random array can then be copied to the 2D array.
- Displaying the matrix. There will be two different matrices to display. See the set of screen shots as an example (note the random characters used in the example are all numbers, but you are **not** limited to these):
- How you display your matrix is up to you. If you want to include column and row headings it is fine.
- If you are unsure how to implement the quit function either forget about it, or consider using the exit(0); function in stdlib.h.

Display the randomized matrix for the player to remember

```
5       4       2       6
2       6       8       4
3       3       5       7
8       7       1       1

Look Carefully...
```

Hide the values by displaying another matrix with blank elements after some time (note you can delay the program by either using a for loop to just count to a very large number or you can include the windows.h header file and use the function sleep(int) (insert a number of milliseconds for int))

```
X       X       X       X
X       X       X       X
X       X       X       X
X       X       X       X




Choose your first card. Press like (1,1)
▄
```

Let the player select two cards and turn them over (i.e. copy their values from the randomized matrix into your display matrix). If they are a pair then they should stay turned over

```
5          X          X          X
X          X          X          X
X          X          5          X
X          X          X          X




Choose your first card. Press like (1,1)
```
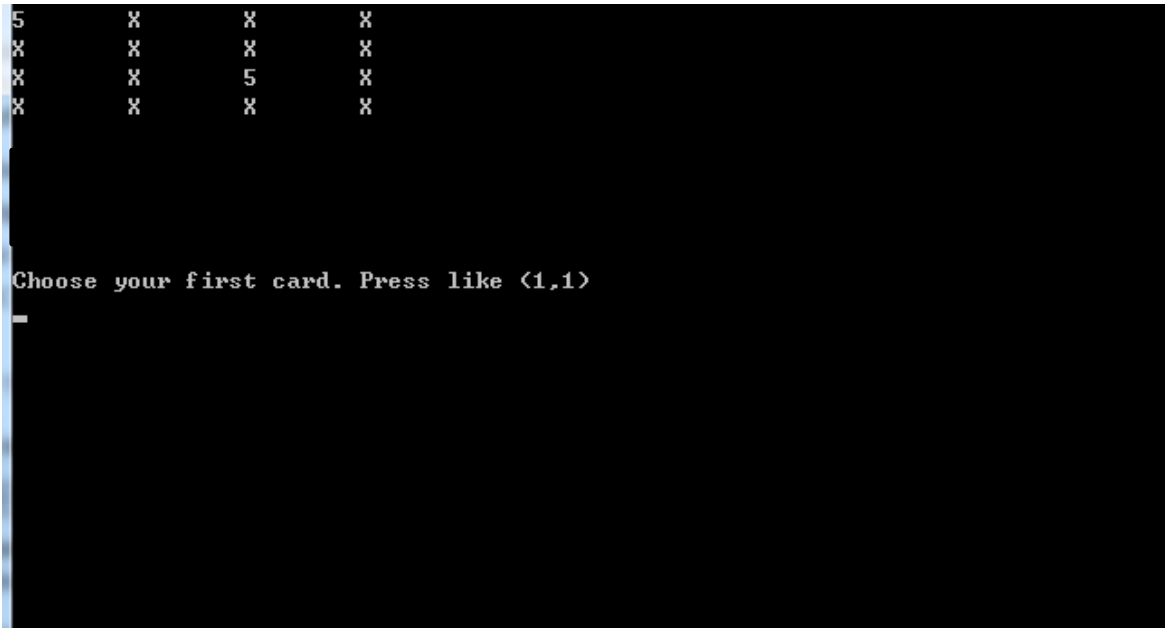
If the selection is not a pair it will be displayed for a few seconds and then turned back to the X again.

Important note, these screen shots are just to help you understand what the program needs to do. You are not supposed to copy or follow them. Use your own format and own ideas.