Ceng 241 Lab1

1-) Write a C program that swaps values and pointers of two variables. Define two functions:

- First function should change values.
- Second function should change adressess of variables.

```
a = 42
 b = 17
--------Swap1---------
a = 17
 b = 42
pa address =  000000000062FE1C
pb address =  000000000062FE18
--------Swap2---------
pa address =  000000000062FE18
pb address =  000000000062FE1C

--------------------------------
Process exited after 0.02498 seconds with return value 0
Press any key to continue . . .
```

2-) Write a program in C to find the largest element using Dynamic Memory Allocation (Dont forget to free the memory).

```
 Pointer : Find the largest element using Dynamic Memory Allocation :
------------------------------------------------------------------------
 Input total number of elements(1 to 100): 15

 Number 1: 2
 Number 2: 15
 Number 3: 12
 Number 4: 1
 Number 5: 5
 Number 6: 6
 Number 7: 7
 Number 8: 11
 Number 9: 14
 Number 10: 13
 Number 11: 1
 Number 12: 4
 Number 13: 3
 Number 14: 6
 Number 15: 7
 The Largest element is :  15.00


--------------------------------
Process exited after 26.55 seconds with return value 0
Press any key to continue . . .
```

3-) Write a C program to store computer components and let users buy them. You need to use 2 structures to store information. First struct is to store components and the other one is to

store user information. User struct has component struct inside (nested structs). So that users have components. Output and the process after running the code is like following: