

## 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

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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:

```
D:\ceng241\2021-2022\lab1q3.exe
Enter the number of products you want to add: 2
Enter product id and product name and price:
1 Ram 200
Enter product id and product name and price:
2 Processor 640
Displaying Information:
name: Ram      id: 1   price: 200.00
name: Processor id: 2   price: 640.00
choose item from list with the id
1
Press 1 if you want to continue: 1
name: Ram      id: 1   price: 200.00
name: Processor id: 2   price: 640.00
choose item from list with the id
2
Press 1 if you want to continue: 0
Your order:
id: 1 item: Ram price: 200.00
Your order:
id: 2 item: Processor price: 640.00
Bill: 840.00$
-----
Process exited after 34.68 seconds with return value 0
Press any key to continue . . .
```