세계 속의 빛 광주과학기술원

Computer Programming

Lab9

May 23, 2025

Submission

- **Submit to server**

Lab #

Class #

At the end of the Lab9, submit your C sources file by typing

~gs1401/bin/submit Lab9_3 ex9_3.c ex9_extra1.c ex9_extra2.c // by Fri. 10:50

You may check that you have submitted your source code correctly by typing

~gs1401/bin/submit -check

Ex3

- Write a program that calculates and displays the discounted price by receiving the discount rate(%) for an integer array in which product prices are stored.
- The size of the array in which commodity prices are stored is 5, and commodity prices are input and used. The discounted price should be stored in a *separate* array.

Ex3

- **Program output**

```
[ohyong@cse ~/cp/Lab9]$ vi ex9_3.c
[ohyong@cse ~/cp/Lab9]$ gcc ex9_3.c -o ex9_3
[ohyong@cse ~/cp/Lab9]$ ./ex9_3
Enter 5 commodity prices:
13000 19000 21000 45000 7000

Discount rate(%)? 25
price:  13000 --> discounted price:   9750
price:  19000 --> discounted price:  14250
price:  21000 --> discounted price:  15750
price:  45000 --> discounted price:  33750
price:   7000 --> discounted price:   5250
```

```
[ohyong@cse ~/cp/Lab9]$ ./ex9_3
Enter 5 commodity prices:
13000 19000 21000 45000 8000

Discount rate(%)? 33
price:  13000 --> discounted price:   8710
price:  19000 --> discounted price:  12730
price:  21000 --> discounted price:  14070
price:  45000 --> discounted price:  30150
price:   8000 --> discounted price:   5360
```

Extra1

- Write a program to separate odd and even integers in *separate* arrays. The size of the array is not greater than 10.

Extra1

- **Program output**

```
[ohyong@cse ~/cp/Lab9]$ vi ex9_extra1.c
[ohyong@cse ~/cp/Lab9]$ gcc ex9_extra1.c -o ex9_extra1
[ohyong@cse ~/cp/Lab9]$ ./ex9_extra1


Separate odd and even integers in separate arrays:
-------------------------------------------------
Input the number of elements to be stored in the array :5
Input 5 elements in the array :
element - 0 : 25
element - 1 : 47
element - 2 : 42
element - 3 : 56
element - 4 : 32

The Even elements are :
42 56 32
The Odd elements are :
25 47
```

```
[ohyong@cse ~/cp/Lab9]$ ./ex9_extra1


Separate odd and even integers in separate arrays:
-------------------------------------------------
Input the number of elements to be stored in the array :9
Input 9 elements in the array :
element - 0 : 11
element - 1 : 12
element - 2 : 13
element - 3 : 14
element - 4 : 15
element - 5 : 16
element - 6 : 17
element - 7 : 18
element - 8 : 19

The Even elements are :
12 14 16 18
The Odd elements are :
11 13 15 17 19
```

Extra2

- Read an integer *n*, then read *n* integers into an array. Check if the array reads the same forwards and backwards (i.e., it's a palindrome). If it is, print "It is a palindrome"; otherwise, print "It is not a palindrome".

Extra2

- **Program output**

```
[ohyong@cse ~/cp/Lab9]$ vi ex9_extra2.c
[ohyong@cse ~/cp/Lab9]$ gcc ex9_extra2.c -o ex9_extra2
[ohyong@cse ~/cp/Lab9]$ ./ex9_extra2
Enter the value of n: 5
Enter 5 integers: 1 2 3 2 1
It is a palindrome
```

```
[ohyong@cse ~/cp/Lab9]$ ./ex9_extra2
Enter the value of n: 4
Enter 4 integers: 1 2 3 4
It is not a palindrome
```

```
[ohyong@cse ~/cp/Lab9]$ ./ex9_extra2
Enter the value of n: 6
Enter 6 integers: 1 2 2 3 2 1
It is not a palindrome
```