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| **KING SAUD UNIVERSITY****COLLEGE OF COMPUTER AND INFORMATION SCIENCES****COMPUTER SCIENCE DEPARTMENT** |
| **CSC215** | **Lab7****C Basics** | **2nd Semester 1436-1437** |

* Write a program that does the following:
	+ Define a constant variable MAX and make it equal to 4.
	+ Define a struct called Employee with the following data member:
		- Name: a string of maximum 40 characters.
		- Salary: a floating point number.
	+ Declare an array of MAX Employees.
	+ Read the names and salaries of all MAX employees.
	+ Use MaxSalary to print the name and salary of the employee with the maximum salary.
	+ Use Raise to give the first employee a 10% raise in his/her salary.
	+ When you print a floating point number, print only 2 digits after the floating point.
* Write the following functions:
	+ Write the function ***MaxSalary*** that takes an array of struct employee. The functions should search the array for the maximum salary. Then prints that employee’s name and salary.
		- voidMaxSalary(struct Employee AllEmps[])
	+ Write the function ***Raise*** that takes a pointer to a struct employee and a raise percentage. Then calculate the new salary after the raise.
		- void Raise(structemployee \*emp, float percent)

*Hint: to print %. Write %%.*

Sample runs:

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| $ **./lab8**============================Enter Employees1 name: **Marwan**============================Enter Marwan's salary: **10000**============================Enter Employees2 name: **Ahmad**============================Enter Ahmad's salary: **9000**============================Enter Employees3 name: **Ali**============================Enter Ali's salary: **3000**============================Enter Employees4 name: **Hassan**============================Enter Hassan's salary: **15000**============================The employee Hassan has the maximum salary 15000.00============================Employees Marwan's salary before the 10% raise: 10000.00============================Employees Marwan's salary after the 10% raise: 11000.00============================ |

Name your file using the following naming convention:

* “Lab7\_YourFirstName\_YourLastName.c"
* Don’t forget to move to your own directory
* Compile your code and execute it.
* Show the program to your lab instructor before you leave.

#include<stdio.h>

#define MAX 4

struct employee{

 char name[40];

 float salary;

};

void MaxSalary(struct employee AllEmployees[])

{

 int i;

 struct employee max = AllEmployees[0];

 for(i = 1; i < MAX; i++)

 {

 if(max.salary < AllEmployees[i].salary)

 max = AllEmployees[i];

 }

 printf("The employee %s has the maximum salary %.2f\n",max.name,max.salary);

 /\*

 OR

 int i, index = 0;

 for(i = 1; i < MAX; i++)

 {

 if(AllEmployees[index].salary < AllEmployees[i].salary)

 index = i;

 }

 printf("The employee %s has the maximum salary %.2f\n",AllEmployees[index].name, AllEmployees[index].salary);

 \*/

}

void Raise(struct employee \*emp, float precent)

{

 emp->salary \*= (1+(precent/100));

}

main()

{

 struct employee Employees[MAX];

 int i;

 printf("============================\n");

 for(i = 0; i < MAX; i++)

 {

 printf("Enter Employees%i name: ", i+1);

 scanf("%s",Employees[i].name);

 printf("============================\n");

 printf("Enter %s's salary: ", Employees[i].name);

 scanf("%f",&Employees[i].salary);

 printf("============================\n");

 }

 MaxSalary(Employees);

 printf("============================\n");

 printf("Employees %s's salary before the 10%% raise: %.2f\n", Employees[0].name, Employees[0].salary);

 printf("============================\n");

 Raise(&Employees[0], 10);

 printf("Employees %s's salary after the 10%% raise: %.2f\n", Employees[0].name, Employees[0].salary);

 printf("============================\n");

}