

<b>KING SAUD UNIVERSITY</b> <b>COLLEGE OF COMPUTER AND INFORMATION SCIENCES</b> <b>COMPUTER SCIENCE DEPARTMENT</b>		
<b>CSC215</b>	<b>Lab7</b> <b>C Basics</b>	<b>2<sup>nd</sup> Semester 1436-1437</b>

- 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.
    - `void MaxSalary(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:

```

$ ./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");
}

```

}