Computer Science Department
Comp142 (Due: midnight 17/05/2020)

Assignment #4

Write a C program to do the following tasks:

1) A text file "*employees.txt*" contains the information about 8 employees distributed in 4 lines:

The first line contains 8 integer values represent the employee numbers.

The second line contains the <u>first name</u> (max 10 letters) of 8 employees separated by either a **space**, **comma**, or a **semicolon**.

The third line contains 8 float values represent the **hours** worked this week.

The forth line contains 8 float values represent the **rate** per hour for each employee.

2) Given:

```
#define len 8
#define tax 0.15

typedef struct
{    int enum;
    char name[10];
    float hours;
    float total_salary;
    floae tax_amount;
} employee_record;
```

- 3) Define an array **AR** of structures of type "employee record" of length 8.
- 4) Fill the array **AR** from the text file "*employees.txt*" When you read the names of the employee into the array, **Do not** use **fscanf** to read the names, input the whole line using function **fgets** and then use the function **strtok** only to get the names.
- 5) Write a **void** function **calculate** which receives the array **AR** and **len** and calculate the weekly **total_salary** and the **tax_amount** for each employee, store their values in array **AR**.

The total salary is calculated as follows:

```
If weekly hours worked is less than or equal 40 hours then:
total_salary = hours * rate

If weekly hours worked is greater then:
total_salary = 40 * rate + (hours - 40) * rate * 1.5

The tax is calculated as:
tax_amount = tax * total_salary
```

6) Write a function a **void** function **sort** which receives the array **AR** and **len** and sort the array **AR** on ascending order according to **name**.

7) Your program should print on another text file "*report.txt*" the following report:

Employee Name	Total Salary	Tax Amount	Net Salary
•	•		•
•	•		•
•			

You can test your program with the following text file:

111111 222222 333333 444444 555555 666666 777777 888888 999999 Sami; Mohammad Kamal, Waleed Maryam; Bayan Ahmad, Jaber 40.5 50 42.5 22.25 36 40 32.5 48 12.4 10.0 18.0 8.0 11.6 14.0 16.2 25.0

Notes:

- Submit your assignment through Ritaj webpage by replying to message 142-Ass4.
- No assignment will be accepted through a regular message on Ritaj webpage, or by an Email.