

ATILIM UNIVERSITY
CMPE 113 – COMPUTER PROGRAMMING I
2020-2021 Spring
HOMEWORK II

Due Date: 04.06.2021, 23:59

WARNINGS

You should submit your homework on Moodle **before the due date**.

- **Late submissions will NOT be graded.**
- Name your homework file as in the format **lastname_firstname_homework-2.c**.
- Do NOT use Turkish characters when you give name to your C file.
- Your homework must be a **C file** not CPP.
- **Do NOT upload .exe file. Otherwise you will get ZERO.**
- **Group study is not allowed. Everyone needs to do his/her homework as an individual.**
- Your codes will be checked by special software (JPLAG) for code similarity. If the **code similarity** between any two or more submissions is **higher than %90**, I will also examine and compare these codes by eye. If I convince that the similarity between two codes is not merely a coincidence, **all involved HWs will get 0 as the grade.**
- **Do not share your solution with others.**

GRADING POLICY: If your code **can not run at all or as expected**, your code will be evaluated over **80 points** instead of 100.

Q. Write a C program for sports center that stores information of members and calculates the total time that the member stays in the center as minutes. Added to this, center also stores information of people come to there for registering or staying at the café.

For this purpose,

- Start with getting the number of people in the center. By using loop structure, get the information of these people.
- Create ***calcMin()*** function and used to return the total time that the member stays in the sports center.
- Check whether the person is a member of the center or not.
 - ❖ If yes, get,
 - The member id and name of related member
 - Check-in and check-out time of the member
 - Calculate the time as minutes by using ***calcMin()*** function.

For example, check-in time: 10:33, check-out time: 11:57,

The total time that the member stays in the center:

$11-10=1$ hour, $57-33=24$ minutes, $\text{total}=(1*60)+24=84$ minutes.

❖ If no, get,

The reason to come the sports center, check two situations, for registering (R or r) or staying at the café (C or c). Check this situation by using conditional statements and print out the name of this person and reason.

❖ Otherwise, give a message that “Please enter your choice correctly.”

In the main function,

You should call *calcMin()* function and display the total time of the member stays in the sports center.

You have to use loop to get the values according to the entered number of people (for example n people), for continuing to the n times of the program.

Sample Run 1:

```
Enter the number of people in the center: 3
Enter member or not (Y/N):Y
Member of the sports center,
Enter member id: 124578
Enter member name: Kobe
Member of the sports center, 124578, Kobe,
Enter the check-in time(HH:MM):11:35
Enter the check-out time(HH:MM):12:45
The total time of the member stays in the sports center is 70.0 minutes.
Enter member or not (Y/N):N
Enter the reason to come the sports center:
Enter R or r for registering, C or c for cafe: R
Enter the name: King
King just came to register.
Enter member or not (Y/N):y
Member of the sports center,
Enter member id: 71239
Enter member name: Stephen
Member of the sports center, 71239, Stephen,
Enter the check-in time(HH:MM):10:45
Enter the check-out time(HH:MM):12:15
The total time of the member stays in the sports center is 90.0 minutes.
```

Sample Run 2:

```
Enter the number of people in the center: 2
Enter member or not (Y/N):n
Enter the reason to come the sports center:
Enter R or r for registering, C or c for cafe: c
Enter the name: Jason
Jason just came to the cafe.
Enter member or not (Y/N):Y
Member of the sports center,
Enter member id: 97321
Enter member name: Tim
Member of the sports center, 97321, Tim,
Enter the check-in time(HH:MM):9:30
Enter the check-out time(HH:MM):10:30
The total time of the member stays in the sports center is 60.0 minutes.
```

Sample Run 3:

```
Enter the number of people in the center: 5
Enter member or not (Y/N):N
Enter the reason to come the sports center:
Enter R or r for registering, C or c for cafe: A
Enter another reason.
Enter member or not (Y/N):n
Enter the reason to come the sports center:
Enter R or r for registering, C or c for cafe: r
Enter the name: Allen
Allen just came to register.
Enter member or not (Y/N):t
Please enter your choice correctly.
Enter member or not (Y/N):
```