

# *Checkin - Group Project*

The goal of this project is allow users at different terminals to simultaneously submit answers to question posed in class. Your group will need to write a **C** program that records the identity of all users that run the program. When the program is run, it first gets the login of the user (using `getlogin()`, for example), then checks the list of users that have already run the program. If the user who is running the program is not on the list, then that user is added to the list. In addition, the submitted answer and the time of the answer are stored.

When running the program imagine that users are submitting the answer to some question and that speed is rewarded. The answer could be specified as a command line argument. Each user is allowed only one answer. In summary, what needs to be stored for each user is as follows.

```
typedef struct user {
    char login[16]; // or so
    int time;      // Unix epoch time as returned by time(0)
    int answer;    // could also be a single char (e.g., 'T' or 'F')
} USER;
```

The program must work correctly if run by several users at the same time, (imagine a class of 40 CS151 students all submitting answers at the same time). **The data should be stored in shared memory and protected by semaphores.** Use your group name as the name of the shared memory 'file' (e.g., 'GroupA').

Create a subdirectory of your home directory named `oct30`, and save your program there in a file named `checkin.c`. Due on Wednesday, Oct 30. You may also write a program called `setup.c` that initializes your system and saves the previous grades to a log file. Groups will be created in class on Wednesday.