Instructions

Your task is to implement as much of the functionality specified in the attached document as possible, and prepare two reports and a demo video.

- One report in PDF format (4 points) is to contain the filled-in specifications (the table in the attached document).
- The other report, also in PDF format (8 points) is to prepare a test plan, indicating which tests were designed, which were executed, and which have passed. A sample test plan is attached.
- IMPORTANT: both reports should list, on the title page, the names and ID numbers (in the format xxxxx0123) of the students who did contribute to the project!
- The demo video (8 points) should be a walk-through of your current implementation of the project, demonstrating the features implemented therein. Duration should be between 5 and 7 minutes, and MP4 format is preferred. You can use Zoom to record it.

Please form groups of 4 or 5 persons and self-enrol. Enrolment is open until April 13, so you could finish everything by that time, enrol in a group, and submit it. There are 75 groups available right now, and I can add more if necessary.

On April 14, remaining students will be auto-enrolled in a group ... but I would recommend that you do not take advantage of this feature.

The deadline to submit the project is April 8 at 11:59pm.

However, submissions made up to April 15, 11:59pm will not be penalized in any way.

Project topic MEM: Recreation Club Membership

Project Description

The context of this project is a small amateur club (think salsa dancing or something like that) with couple of dozen members. Club meets once a week for practice, and they are coached by an amateur coach. Members are free to show up (or not) every time. When they show up, they should pay for each practice, say, $10, but they may also pay for up to one month in advance; some discount may be given if so desired. Once a month, the treasurer pays the rent for the hall in which the club meets, and the coach should be paid monthly or biweekly, but only for the practices that she has attended (she has a full-time job which sometimes requires her to be unavailable for the practice). The app should keep track of finances for the club, and for each member, as they sometimes show up for practice but manage to sneak out without paying. It may also send reminders to members about forthcoming practices, both regular and ad hoc ones, and threaten those who are a bit too casual with their payments.

Definition of Story Points

For story points, each story point corresponds with 2 hours of actual work.

Description of Status Column In the "Status" column, the final status of each task was specified using one of three possible values: DONE, PARTIALLY COMPLETE, and INCOMPLETE.

Estimate … column

An estimate of the effort required to finish the respective task should be entered.

<u>Actual … column</u>

Actual time invested to finish the respective task should be entered, if the task status was DONE or PARTIALLY COMPLETE.

Revised Product Backlog

Requirement					

Story	Initial Priority	Task	Estimate (Story Points)	Actual Time (Story Points)	Status

Track Club Finances					
Treasurer needs to be able to see the club's current profit	MED	Create the income statement and add the revenue portion (members payments, any other income that may come)			
		Add the expense portion to the income statement (coach's payments, hall expenses, any other expenses)			
		Create a list for the year, logging each month's profit to compare changes in revenue/expenses in order to find ways to maximize profit			
Treasurer needs a log of any unpaid debt from previous months (i.e. any months the rent for the hall was not paid, or not fully paid, and unpaid coach expenses)	HIGH	Create a list to log the total amount of unpaid coach expenses and hall expenses for each month, prioritizing the urgency for payment			
Treasurer needs the current month's account payables (e.g. members who have paid in advance)	MED	For efficiency, this can be listed in the income statement under revenues. Since there is no mention of a return policy, this can be counted as a revenue as soon as the transaction is completed.			

Log and sort members					
Keep a log of the members	MED	Create a list of the members who have attended the class, and those who will be attending the class Each member will have their name, phone number, whether they paid or not, and address			
Sort the members by their frequency of attendance in the club. Provide a discount based on amount of practices attended.	LOW	Using the list of members, organize the members by the amount of times they have attended practice at the club			
		Based on the frequency level, the member will have a loyalty discount. The top 10 people on the list of most practices attended will receive a complimentary discount of %10 off for one class. This will help ensure member retention			
Sort the members by whether they have paid or not. Provide a discount or charge based on amount of unpaid/paid classes	HIGH	Using the list of members, organize the members by the amount of times they paid/not paid			
		If the member has not paid more than once, then he will be subject to a penalty fee and possibly exclusion from the group. A reminder will be sent for any member who has skipped at least one payment.			
		I f the member does not skip a payment for 3 months, he will receive a complimentary discount for 10% off for one class.			

User interaction with application					
The coach should be able to communicate to the members about future practices	HIGH	Create a user interface where a message can be sent out to all or some members, with details of future practices or changes to any practices. A reminder message can also be sent out for a member who has skipped a payment			
The treasurer should be able to manage coach list and schedule. The coach should be able to manage the members list (i.e. adding or removing)	MED	Create user interfaces for different character to modify the list of participants. And the corresponding character will receive notification upon changes.			
Members need to be able to schedule and pay for the practice within the app.	MED	Create user interface of payment methods or link to a third party payment method. Treasurer and coach should receive notification of the scheduled practice and received payment with user id, class amount and relative coach			
New members should be able to create an account	HIGH	Create an interface that allows new members to register an account to partake in club activities			
Members of the club should be able to log into the application	HIGH	Create an interface that allows the members to log into the application and be directed to a UI that corresponds to their role in the club			