

1. Project topic MEM: Recreation Club Membership

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.

Revised Product Backlog

Requirement				
Story	Initial Priority	Task	Implementation Notes	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)	Implement a method in the ClubFinances class that calculates the total income from member dues and any other sources. Add this to the income statement report.	done
		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	Use a dictionary yearly_finances in the ClubFinances class to log each month's profit. Update this dictionary at the end of each month with the profit for that month.	done

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	Unpaid dues from members and unpaid rent or coach expenses are tracked to prioritize financial obligations. This functionality must be enhanced to include a detailed log for tracking and managing unpaid debts, partially covered through member dues management.	done
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.	To address the Treasurer's need to track the current month's account payables, especially advance payments from members, the ClubFinances class should include a method for identifying and reporting these payments. It's essential to distinguish between dues for current month practices and advance payments for future activities for precise financial planning. This requires modifying the ClubMember class to track payments, specifying their applicability to current or future practices. Additionally, the generate_income_statement function in ClubFinances needs to be updated to separately report	

			advance payments, offering clear insight into the club's financial commitments and resources.	
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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	Implement a database or a structured file system to record member attendance, payments, and personal information securely. Ensure compliance with data protection regulations. Develop functionalities within the app to update member logs in real-time as they attend classes or make payments.	done
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	Design an algorithm to sort members based on their attendance frequency. This may involve timestamping each attendance record for accurate tracking. Integrate a rewards system that automatically calculates and applies discounts to members based on set attendance milestones.	in progress

		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	Enhance the sorting algorithm to not only track attendance frequency but also to rank members accordingly. Implement a notification system to alert members when they qualify for the loyalty discount, encouraging continued attendance.	in progress
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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	Create a financial tracking subsystem within the app that monitors payments made by each member, allowing for easy sorting and identification of payment trends. Automate the application of penalties for missed payments and rewards for consistent payment behavior, integrating with the messaging system for notifications.	in progress
		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.	Establish clear rules within the app regarding payment policies, penalties for non-payment, and the process for rejoining after exclusion. Implement an alert system for treasurers and coaches to flag members with outstanding payments, automating the process of sending reminders and applying penalties.	in progress

		If the member does not skip a payment for 3 months, he will receive a complimentary discount for 10% off for one class.	Integrate a loyalty recognition feature that automatically tracks each member's payment history, rewarding consistent payments with discounts. Ensure that the system can identify and reward members who meet the criteria without manual input from the treasurer or coach.	in progress
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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	Implement a messaging system within the application, allowing the coach to select recipients based on certain criteria (e.g., all members, members who missed the last session). Include functionality for drafting, sending, and scheduling messages about practices and reminders for payments. Implement a logging system to track messages and responses that have been sent, if applicable.	in progress
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.	Develop an interface for the treasurer to view and edit the practice schedule and the list of coaches, including their availability. Enable notifications to be sent to coaches whenever their schedule is updated or when they are added to/removed from the list.	in progress
	MED	Create user interface of payment	Integrate payment processing functionality to allow members to pay for practices securely within the app, supporting major	in progress

Members need to be able to schedule and pay for the practice within the app.		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	credit/debit cards and digital wallets. Implement a scheduling system where members can sign up for upcoming practices, view their schedules, and receive confirmations and reminders. Ensure that the treasurer and coach are notified of each transaction and sign up to keep track of finances and attendance.	
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	Develop a registration form that collects necessary information from new members, including contact details and preferences. Implement account verification processes (e.g., email verification) to ensure authenticity.	in progress
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	Create a secure login system that supports authentication methods like passwords and, optionally, two-factor authentication. Design the user interface to direct members to a dashboard corresponding to their club role, providing relevant information and actions.	in progress