

Our design has changed for adding methods to the ReservationSystem class, however, the functionality and the way that our design works remains the same. For our design, our class that handles operations will be the ReservationSystem class. This class will then delegate to other methods in other objects by using composition. The Main class will handle the user input, output and system persistence, in order to separate the main system from I/O operations and state persistence. For the User class, we will distinguish between other user types by using inheritance, where the subclasses of the User class represent each user type, which is the Officer, Coach and Member classes. For the Reservation class, we will use the C++ standard library class called Time in order to keep track of the startTime and endTime of each reservation.

Class: Main	
Responsibilities	Collaborators
Represents the controller of a reservation system, and makes sure to initialize and update the reservation system, while also ensuring persistent storage of data.	ReservationSystem
Class: ReservationSystem	
Responsibilities	Collaborators
Represents the entirety of the pickleball reservation system, and contains all the information about reservations and users.	User, Reservation

Class: Reservation	
Responsibilities	Collaborators
Represents a reservation in the current reservation system, and contains information about the time slot of this reservation, whether this reservation has been booked yet, and the user who has booked this reservation (if it has been booked)	-

Class: User	
Responsibilities	Collaborators

Represents a user of the reservation system, and contains all the information about this user, such as the type, skill, and a list of all of this user's reservations	Reservation

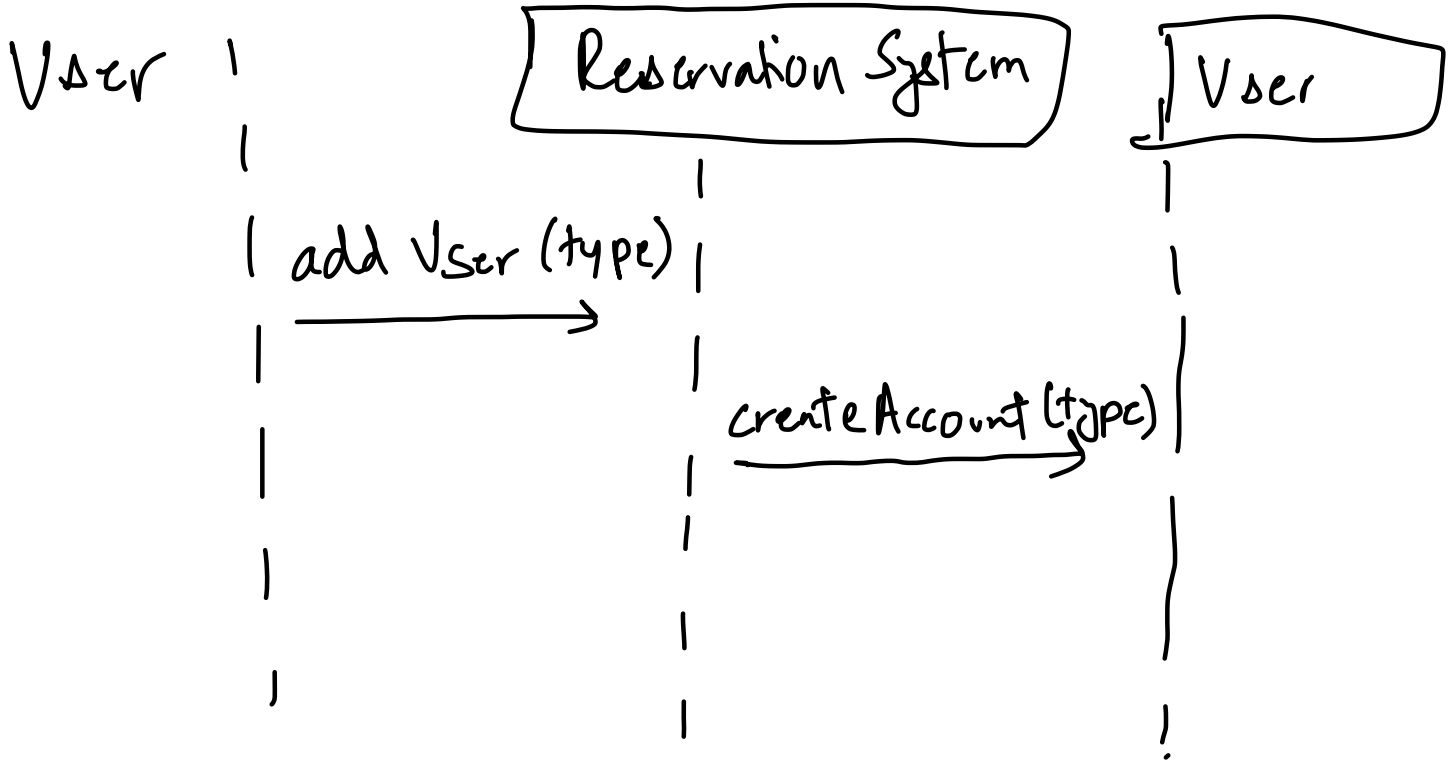
Class: Coach	
Responsibilities	Collaborators
Represents a coach, which is of type User in the reservation system. A Coach can do everything a User can do, other than modifying a reservation by themselves - they have to send a request to a Club Officer for doing so.	-

Class: Member
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Responsibilities	Collaborators
Represents a member, which is of type User in the reservation system. Just like a Coach, a Member can do everything a User can do, other than modifying a reservation by themselves - they have to send a request to a Club Officer for doing so.	-

Class: Officer	
Responsibilities	Collaborators
Represents an Officer, which is of type User in the reservation system. An Officer can do everything a User can do, with the additional feature of modifying existing Coach/Member reservations, and also scheduling open play hours.	-

# Create a user



Select an existing user

Reservation System

User |

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| select User (user)

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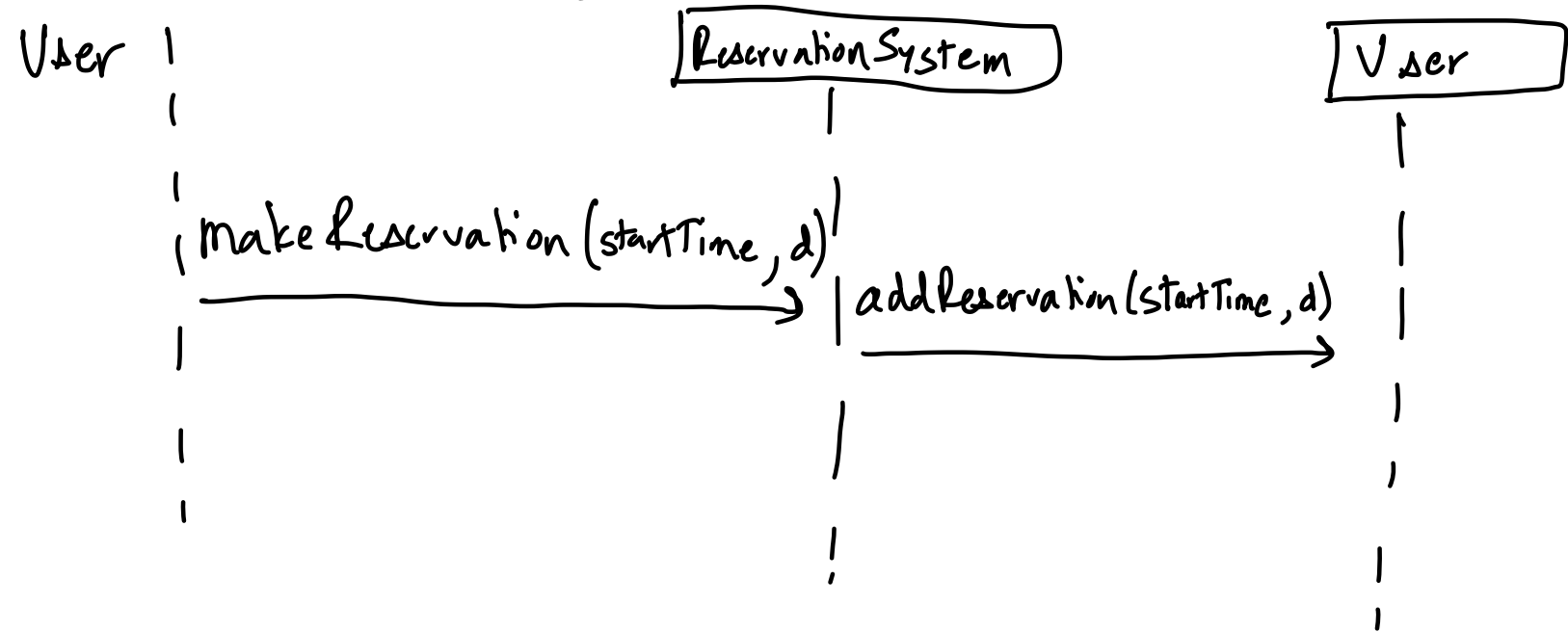
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# Making a reservation



# Requesting Cancellation of Reservation

