

## Assignment-05 (Group)

\* Draw class diagrams for your project.

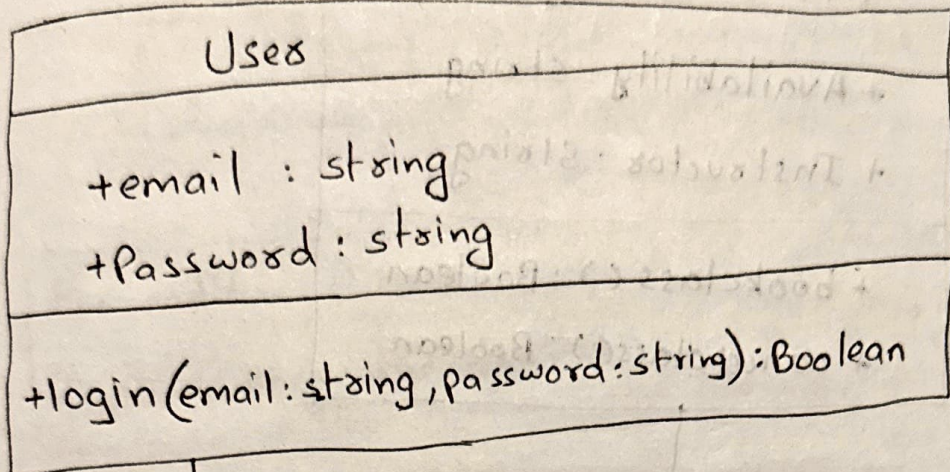
Group Members:-

- (i) Prajwal Garla
- (ii) Gurusaran Reddy Busireddy
- (iii) Mahesh Peta
- (iv) Hazi Naga Venkata Sai Posani



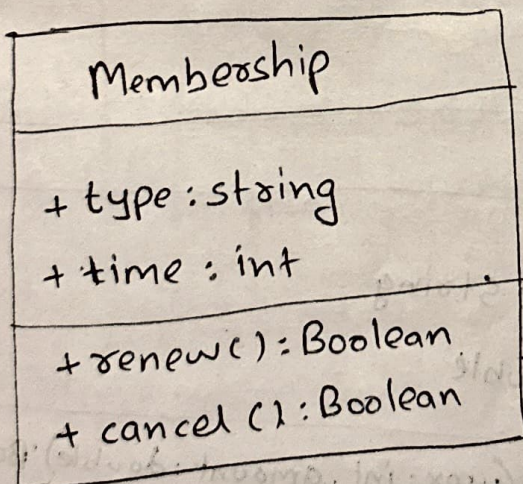
# \* Class diagrams for term project:-

①



Precondition: Credentials must be valid.  
Postcondition: logged in if successful

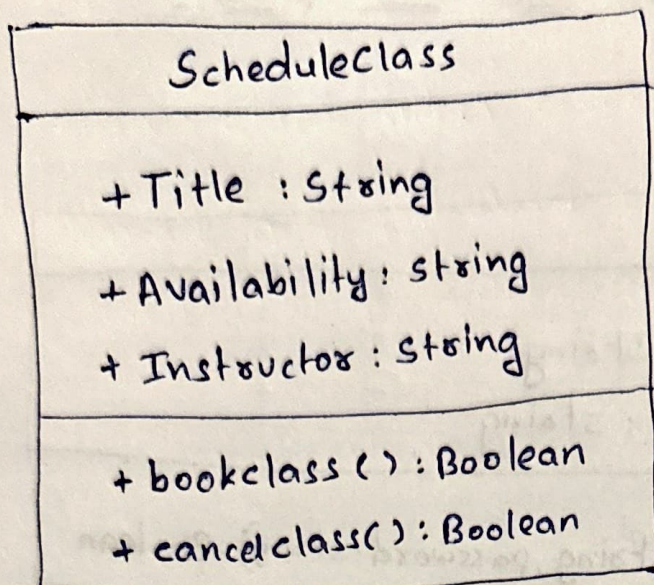
②



Precondition: user must be having an active membership currently.  
Postcondition: successfully renewed or cancelled successfully



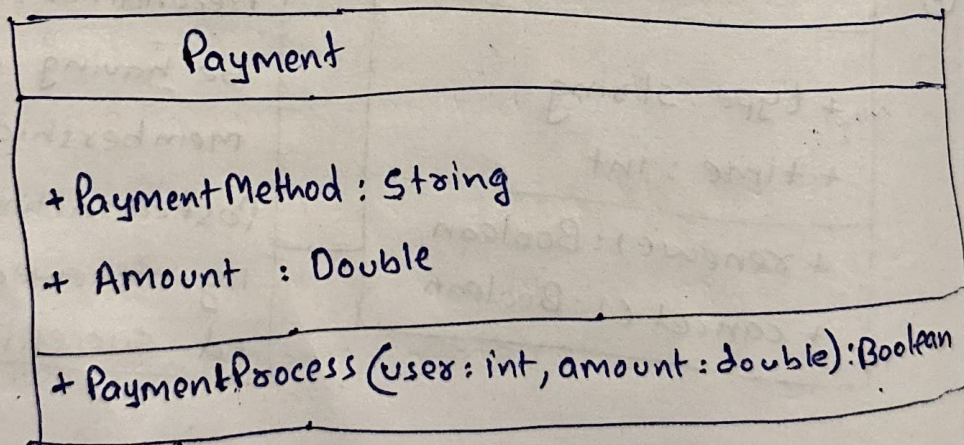
③



Precondition: user must have membership to book a class.

Postcondition: class booked successfully (or) class is canceled

④

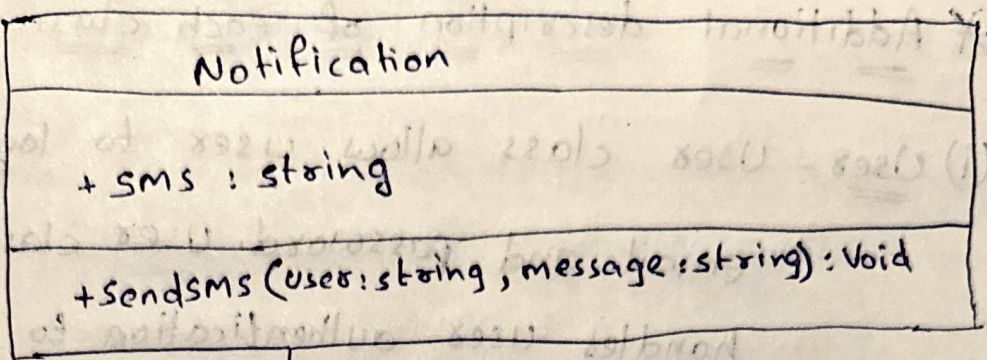


Precondition: Correct Payment details required.

Postcondition: Successfully processed payment

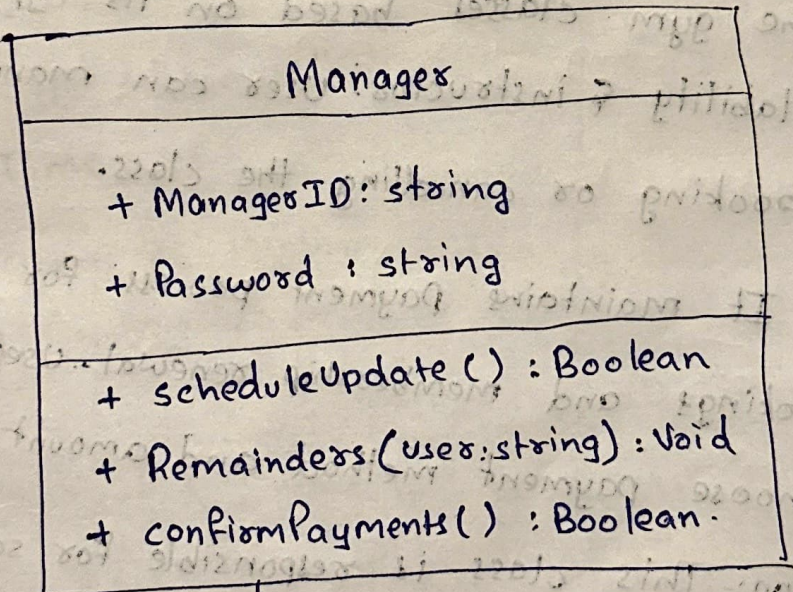


5



Precondition: Relevant message to valid user.  
Postcondition: Sent Notification.

6



Precondition: valid login credentials required.  
Postcondition: Successfully updated schedule,  
sent Remainder & confirmed  
Payment successfully.



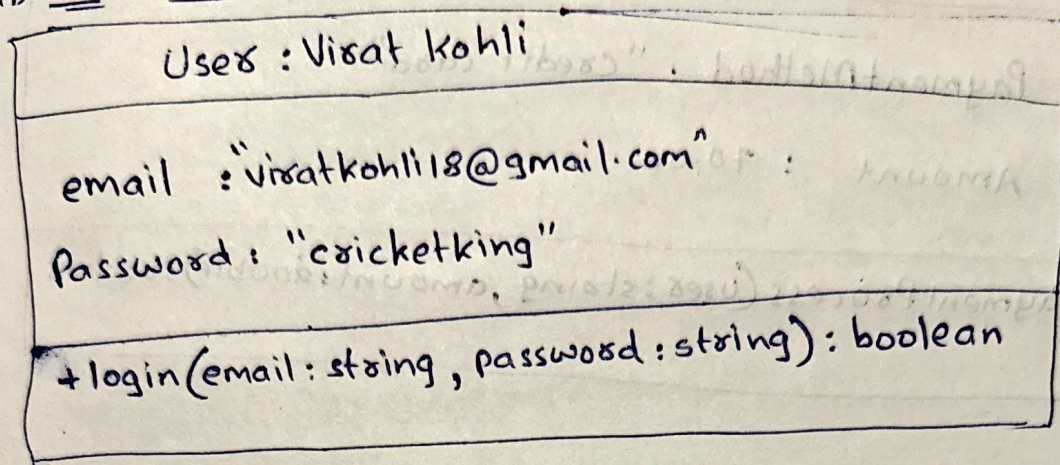
## \* Additional description of each class:-

- (i) User:- User class allow user to login using email and password. User class mainly handles user authentication to log in.
- (ii) Membership:- Membership class manages subscription type for users. User can be able to cancel or renew membership.
- (iii) ScheduleClass:- ScheduleClass handles scheduling the gym classes based on its type, availability & instructor. User can manage booking or cancelling the class.
- (iv) Payment:- It maintains payment process for class bookings and membership renewal. User can choose payment method and amount accordingly.
- (v) Notification:- This class is responsible for sending messages to users as SMS using Twilio API. User can receive reminders, class schedule etc.
- (vi) Manager:- In this class, manager can login using valid credentials and can be able to overlook and manage all activities such as sending reminders, updating classes etc.

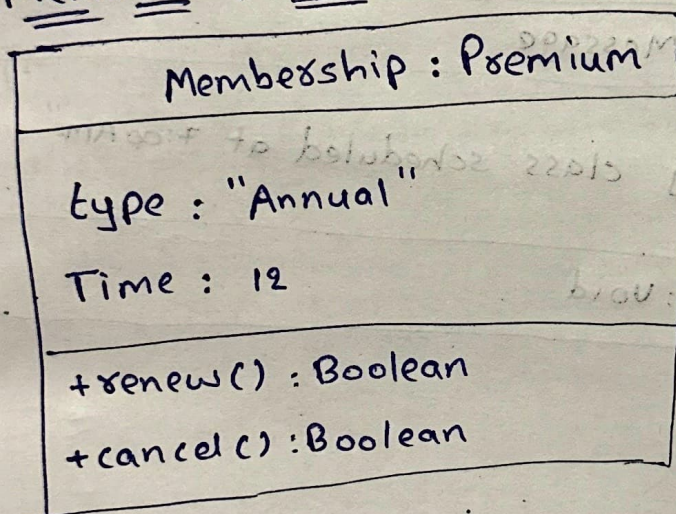


## \*Object diagram for each class:-

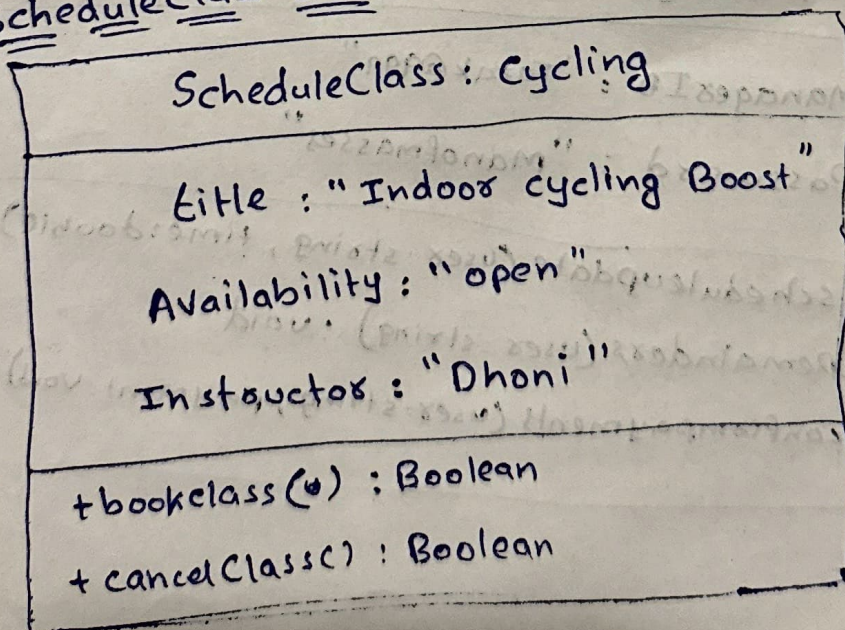
### (i) User class:-



### (ii) Membership class:-



### (iii) ScheduleClass class:-





(iv) Payment Class:-

Payment : Place order
PaymentMethod : "credit card"
Amount : 70.00
+ PaymentProcess (user: string, amount: double): boolean

(v) Notification class:-

Notification : Message
sms : "Cycling class scheduled at 7:00 AM."
+ sendsms () : void

(vi) Manager class:-

Manager : Tarak
ManagerID : "Tarak@999"
Password : "Manofmasses"
+ scheduleupdate (user: string, time: double): boolean
+ Remainders (user: string) : void
+ confirmpayments (user: string, payment: void): boolean