Assignment 3

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INFO C451: System Implementation

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1. Functional Requirement Specification

Stakeholders

Stakeholders are those that have interest in the success of the business organization.

Primary stakeholders: The primary stakeholders are those that use the system in order to monitor the database and increase efficiency of the organization.

Management

Employees

Secondary stakeholders: The secondary stakeholders will use the system to increase satisfaction by increasing efficiency of checking in and scheduling remotely.

Members

Potential Customers

Actors and Goals

Actors	Goals				
User interface	Displays scheduling availability				
	Displays crowd density				
	Allows user to login				
	Allows user to sign up				
System	Connects database to user interface				
	Updates user information				
	Collects user information				
	Collects user payments				
	Schedules appointments				
	Checks in user				

Employee	Can read check-in logs
	Can edit member information
	Can schedule appointments for members
Customer	Can Log into system
	Can view personal information
	Can edit personal information
	Can schedule appointments
Management	Can read check-in logs
	Can manage system
	Can edit member information
	Can edit employee information

Use Cases

UC1: Sign Up – Potential members can create an account

UC2: Log In - Members can access the site by logging in using their information

UC3: Check In – Members can check in remotely

UC4: Availability – Members can check to see how crowded the location is

UC5: Walk-In - Members can still sign up or check in at the front desk if they are not able to remotely

UC6: Scheduling – Member can schedule, edit, or cancel an appointment

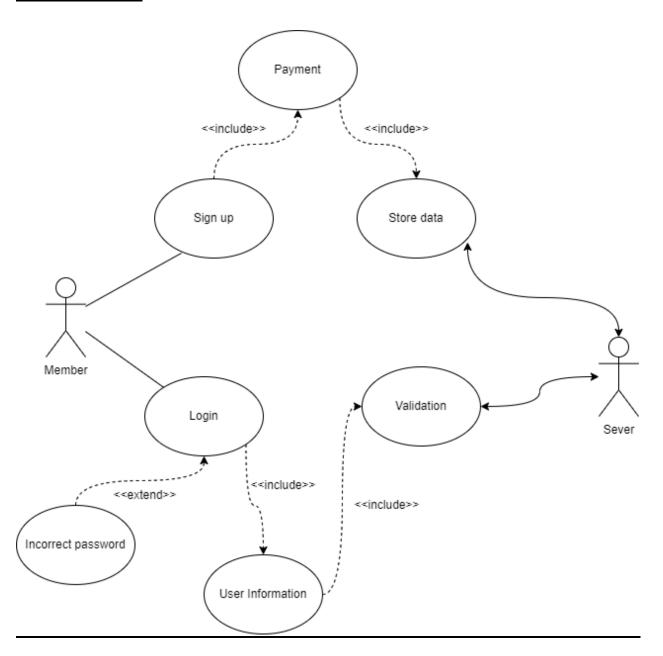
UC7: Payment – Members can pay for their membership or products

UC8: Privacy - Encrypt member information for security

UC9: Updates - Send payment updates, scheduling, and change requests

UC10: User information – Members can view and edit their information or payment methods.

Use Case Diagram



Traceability Matrix

REQ	PW	UC1	UC2	UC3	UC4	UC5	UC6	UC7	UC8	UC9	UC10
Functional											
REQ1	6	X									
REQ2	6			X							
REQ3	5						X				
REQ4	6		X	X							
REQ5	4		X								
REQ6	5										X
REQ7	6										X
Nonfunction	onal										
REQ8	4										X
REQ9	6				X						
REQ10	5									X	
REQ11	3						X				
REQ12	4						X			X	
REQ13	4							X			X
REQ14	5		X						X		X
Interface			<u> </u>	l	l	<u> </u>	l	<u> </u>	l	<u> </u>	l
REQ15	9	X	X	X							X
REQ16	6										
REQ17	6									X	X

REQ18	7				X		X
REQ19	6	X	X				
REQ20	8					X	X

Fully-dressed Description

Use Case 1: Sign Up

Requirements: REQ1, REQ6, REQ10, REQ15, REQ16, REQ19, REQ20

Actors: User, System, User Interface

Goal: To create a member account for the organization

Precondition: User must have access to a device and be on the website

Postcondition: The member is allowed to sign into their account on the website

Flow of events:

- 1. User clicks sign up button
- **2.** User fills out personal information
- 3. System processes request
- **4.** User validates account creation through email
- **5.** User is redirected to login page where they can then login

Use Case 2: Login

Requirements: REQ4, REQ5, REQ7, REQ10, REQ14, REQ16, REQ19

Actors: User, System, User Interface

Goal: To login to the website with credentials

Precondition: Must have an account created

Postcondition: The member is allowed to edit information and schedule appointments

Flow of events:

1. User clicks on login button

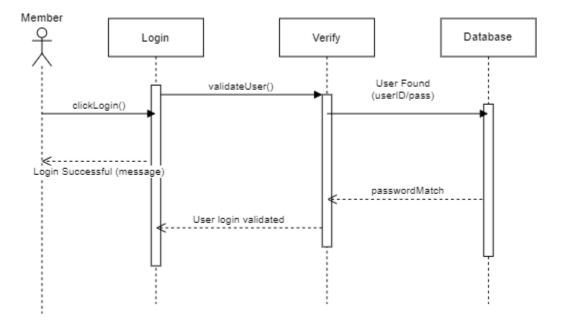
2. User enters credentials

3. System processes request

4. User is redirected to home page

System Sequence Diagram

Login as Member



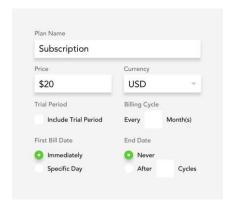
2. User Interface Specification

Preliminary Design

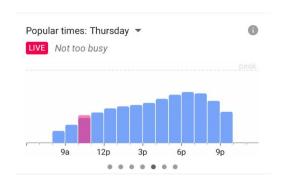
When users first visit the site, they will be able to access most of the features. When they come across something that requires them to make an account it will prompt them. The navigation bar will look like the image below.



Members will be able to create a subscription plan for their membership and may decide on when the membership renewal should halt. The payment gateway will look like the image below.



Users will be able to view the status of an establishment. This status will show how busy it is currently depending on the number of members checked in. The image below reflects the status.



User Effort Estimation

Use Case	Number of Clicks					
Sign up	5					
Log in	3					
Remote check in	6					
Availability	2					
Schedule	7					
Payment	8					
Edit Information	6					