

Project Selected: Gym Management System

Description:

The Gym Management System is designed to manage all operations within a fitness facility.

Classes:

Gym Management (Class: Gym):

- Manage Core Systems Components: The Gym class will oversee and manage the entire system
- Display the main menu for the rest of the classes and menu options
- Provide access to members login, staff login, payments, and inventory/equipment management

Member (Class: Member):

- Stores basic information of the customers
- Will have assign membership Id and membership Type. This can be edited by staff (Add/Edit/Remove)
- Access to Membership Menu and Payment menu, freely allow to manage their accounts to some accord.

Staff (Class: Staff):

- Array List of all employees at the Facility.
- Implement Staff Access Control (Ex. Manager, Crew, etc).
- Manage Staff Information including Adding/Editing/Removing Schedule, Add/Remove Staff or Members from their list

Class (Class: Class):

- Access to Class Schedule that will open up a menu that offers different fitness classes (Ex. Yoga, Zumba, Cycling, etc.)
- Must have access to Schedule Class to manage booking and availability
- Allow members to register/book for classes

Inventory (Class: Inventory):

- Menu Option to manage gym products and equipment.
- Allow Staff to manage Inventory (Add/Edit/Remove) any products or equipment
- List will include Supplements Items that can be purchased (Protein Powder, Creatine, Pre-workout supplements, etc)

Membership (Class: Membership):

- Different Tiers of Memberships (MembershipType)

- Basic Tier: Access to Gym Area (About \$10-20)
- Black Pass: Access to Gym Area, Resting Area with additional amenities, and Book Fitness Classes (About \$40)
- Members are freely allowed to manage their membership such as upgrading, canceling, or renewing.

Facility (Class: Facility):

- Represent all physical areas withing the Gym (Including Main Gym Area, Resting Area, and the Classes Area)
- Access to Inventory Menu for staff to manage the inventory with their login
- Access to Schedule Menu for Members to book/cancel a class with their login

Payment (Class: Payment):

- Payment menu with a variety of options of paying for members (Cash, Credit, debit, etc.)
- Handle the Payment calculation change when necessary (When paying with Cash)
- Access to Receipt Class, allowing it to print out a receipt if member wants one

Receipt (Class: Receipt):

- Prints out Receipt of purchase from after the payment class was successful.
- Give option to whether to print (display) a receipt. (Save Paper)

Schedule (Class: Schedule):

- Connected with Staff and Class, as it will have two lists.
- List Management:
 - Staff Schedules (Work Hours / Shifts)
 - Class Schedules (Available Times / Opening)