Fit X
Fall 2023
Group 9

Aidan Monahan
Alexander Tapia Tellez
Ari Key
Chase Blackwell-Robertson
Christopher Ramos

9/29/2023

Planning Table

| Name	Email	Task	Duration	Dependency	Due Date	Evaluation
Aidan	amonahan1@student.gsu.edu	UseCases, System requirements, github, Use Case Diagram, Class Diagram	6hr	None	9/29/2023	100%
Alex	atapiatellez1@student.gsu.edu	UserCases, System requirements ,UseCase Diagram, Database Schema	6hr	None	9/29/2023	100%
Ari (Coordinator)	akey8@student.gsu.edu	UseCases,problem statement, and system requirements, Database Schema	6hr	None	9/29/2023	100%
Chase	cblackwellrobertson1@student.gsu.edu	UseCases and system requirements, Github Screensots, Database Tables	6hr	None	9/29/2023	100%
Chris	cramos14@student.gsu.edu	UseCases and system requirements, Database Tables	6hr	None	9/29/2023	100%

Improved Problem Statement:

Our product is a fitness app for people who want to improve in their sport and/or their lifestyle. It is made to resolve the problem of people not having access to fitness content/resources or don't want to spend time researching various forms of workouts and/or healthy habits. The expensive alternative is having a private trainer which not many people can afford, which is why this app is worth creating as it allows the user to have a form of trainer in the palm of their hand. It will send a notification to the users phone when they have a scheduled workout or when they need to take a rest day. The objectives that we strive for are enabling easy access to workouts for specific sports and also allowing the regular person to use the app for their workout/wellness needs. Our competitors are similar apps such as FitOn, Adidas Training, and Burn. Fit and our approach to creating this app that is different from these is that our app will have specific workouts made for sports to ensure growth while also having a section for a regular person to use the app. What is interesting about this is that it is built on an Android system and uses various systems/modules such as a login system to create a simple yet efficient fitness app.

Use Case Diagrams:

Use Case 3:
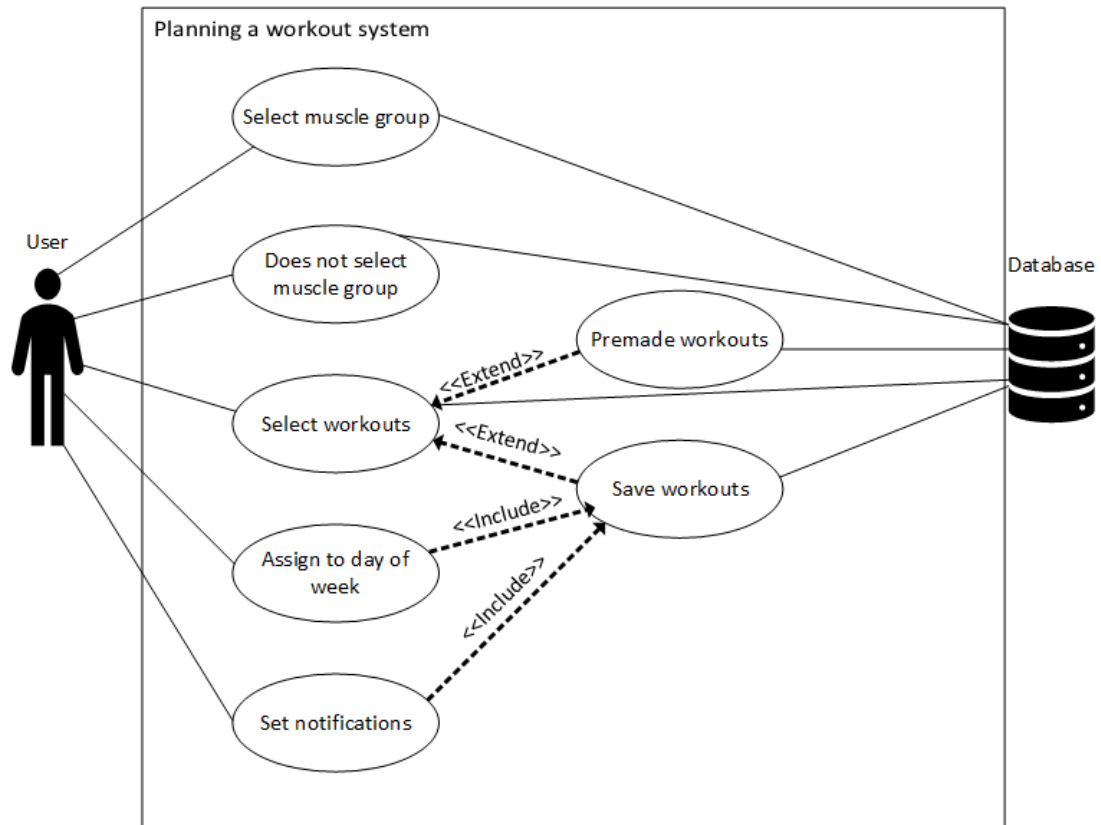
Use Case 10:
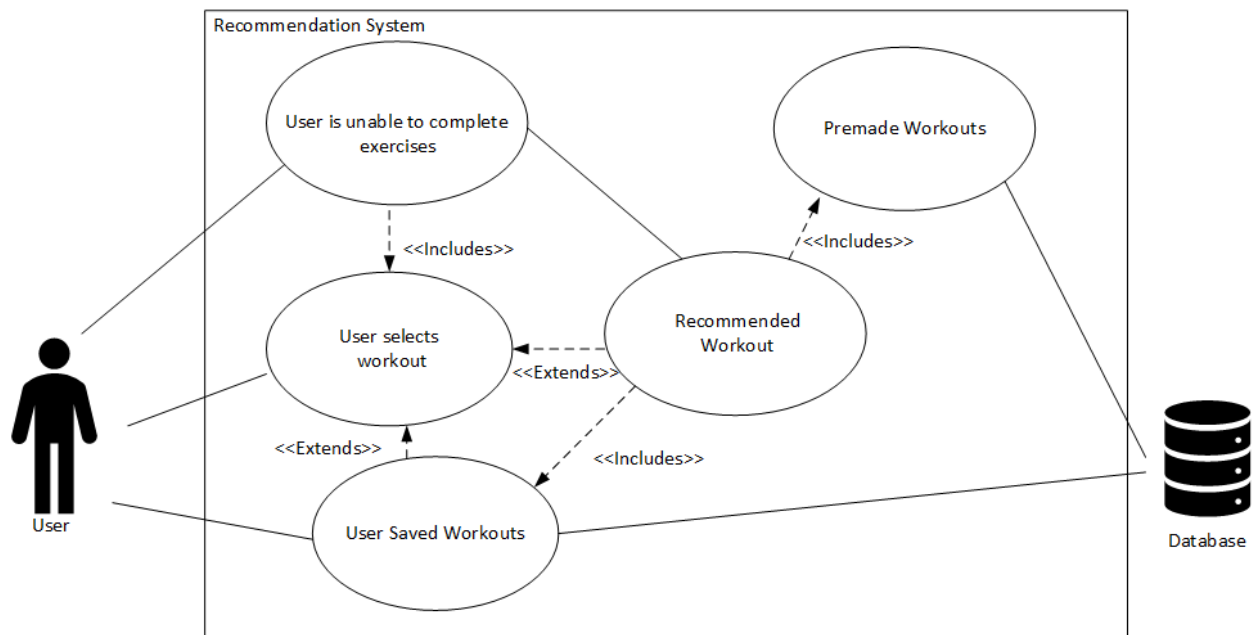
Use Cases:

Use Case no.: 1   Use Case Name: Workouts for Specific Sports
Actors: User, FitX, Database
Description:
- User created an account with specific sport
- Database retrieves workouts that are beneficial to that specific sport
- Fitx displays curated list of workouts/exercises in specific sport

Alternate Path: The user has not inputted in a specific sport that they play, Fitx will just display a generic list of workouts/exercises they can perform.
Pre-Condition: Need to have an account created.
Post-Condition: Curated list of sport specific workouts is shown to user

Use Case no.: 2   Use Case Name: Giving healthy Tips
Actors: User, FitX, Database
Description:
- User created an account with specific sport
- Database retrieves healthy tips for the specific sport
- User selects the healthy tips tab
- FitX provides helpful healthy tips for user based on their specific sport

Alternate Path: FitX will have a generic list of healthy tips that the user can look through
Pre-Condition: Need to have an account created.
Post-Condition: Healthy tips will be available for the user

Use Case no.: 3   Use Case Name: Planning a workout
Actors: User, Database
Description:
- User desires to create a workout plan for one or more workouts
- User will be prompted to select what muscle groups if any they wish to work out
- Database will retrieve all workouts pertaining to groups selected
- User will select workouts from lists of the muscle groups they have selected or they will select a premade workout
- They will then be given an option to save workout with an overview of all selected exercises
- They can choose to assign this workout to any day of the week
- They can also choose to add notifications for this workout

Alternate Path: User does not select a muscle group, user will be provided with all workouts in our system. With recommended workouts appearing higher.
Pre-Condition: User has an account, and user selects plan a workout
Post-Condition: A workout plan is now saved on account.

Use Case no.: 4   Use Case Name:Account Creation
Actors: User, Database, FitX
Description:

- Once user opens the app they will presented with a page on whether or not they have an account with FitX
- If user doesn't have an account they will need to create one with FitX
- When the user is done inputting all information, their account has now been created

Alternate Path: If user does have an account they will be asked to sign in with username and password

Pre-Condition: Need to have the FitX application installed.

Post-Condition: User now has an account with FitX

Use Case no.: 5   Use Case Name: Inputting workout data

Actors: Users, FitX, Database

Description:
- During a workout, the user will be prompted to input data related to their workout. This will include things like, exercises, number of sets, number of reps, weight, duration of workout, and rest periods
- Our database will save this data to the users account for that day

Alternate Path: User does not inform the app that they are working out, or does not input the data while working out. They will still be given the option to input data for that workout at any point after.

Pre-Condition: User must have an account, and inform the app they are working out

Post-Condition:Data will be saved for later use for progress tracking

Use Case no.: 6   Use Case Name: Find workout video

Actors: Users, FitX, Video Source, Database

Description:
- As user views workouts in the app, user will be shown a demonstration of how the workout/exercise is performed
- Short and straight to the point to ensure timely deliverance of the demonstration for user to see

Alternate Path: Instead of a video, workout can be demonstrated via pictures

Pre-Condition: FitX installed and account created

Post-Condition: Video will be paired with the correct exercise and available to view

Use Case no.: 7   Use Case Name: Selecting a workout/exercise

Actors: FitX, Database

Description:
- User can select their preferred workouts in the app depending on their need
- Various sections/categories separated by muscle group, type of exercise, sport, etc
- Once in a specific category, user is given a list of exercises pertaining to that group
- User can add workout to workout plan via Add button or view individually

Alternate Path: If user does not desire to individually select a workout/exercise, they are given the option to choose a generic plan

Pre-Condition: FitX installed, Account created

Post-Condition: Workout will be available in user's personal plan

Use Case no.: 8   Use Case Name: Sending notification

Actors: FitX, Database, Calendar
Description:
- User will be given notifications pertaining to their workouts, achievements, progress
- Notification may be for future workouts that are scheduled soon or past workouts, progress made, and achievements
- Can be notified while in app or outside of app

Alternate Path: User can disable notifications or get limited notifications
Pre-Condition: Fitx installed, Account created
Post-Condition: User will receive regular notifications regarding their workouts and the such

Use Case no.: 9   Use Case Name: Progress Tracker
Actors: Actors: Users, FitX, Database
Description:
- User logs into FitX app and accesses the main dashboard.
- The dashboard shows an overview of fitness progress, including workout stats and goals.
- Users can set and update fitness goals, input workout data, and receive progress notifications and insights.

Alternate Path: If the user chooses not to set specific fitness goals, they can still use the progress tracker to monitor their workout history and general fitness improvements without defined targets.
Pre-Condition:Fitx installed, Account created, and at least one workout session for data to be tracked
Post-Condition: Users will be able to monitor and track their fitness progress, offering insights and visual representations to help them make informed adjustments and stay motivated.

Use Case no.: 10   Use Case Name: Recommendation
Actors: User, FitX, Database
Description:
- User has created an account and has performed exercises on the app.
- User does not complete exercises so the app recommends an easier workout for the user to promote completion
- User does complete workouts and is going over the recommended amount of workouts.
- User will be recommended on taking a rest day to improve recovery.

Alternate Path: User has the ability to ignore recommendations.
Pre-Condition: Need to have an account created and perform exercises.
Post-Condition: User accepts recommendations then the user has the ability to view recommended workouts, if user denies then the user continues normal activity.

Use Case no.: 11   Use Case Name: Feedback and support
Actors: User, FitX, Database
Description:
- User selects a workout and views examples on that workout
- When the user is viewing a workout/workout video, they have the option to give feedback on that workout

- The feedback will go to the database, where it will keep track of the amount of positive and negative feedback per exercise.

Alternate Path: User does not have to do feedback option and can continue activity.

Pre-Condition: Need to have an account created and have selected an exercise.

Post-Condition: Feedback information is inputted into the database and a prompt thanking the user appears.

Use Case no.: 12   Use Case Name: Achievements

Actors: Users, FitX

Description:
- Users will log their fitness activities and fitness goals.
- The app awards achievements as users reach specific fitness milestones.
- Users receive notifications and badges for earned achievements, view them in the app, and can share them on social media for motivation and inspiration.

Alternate Path: If a user prefers not to share their achievements, they can simply view and appreciate their accomplishments within the app without posting them on social media.

Pre-Condition: The user has completed fitness activities that meet the criteria for earning achievements.

Post-Condition: The user has earned one or more achievements within the FitX app.

System Requirements

Requirement number: 1   Use Case number: 1
Introduction: Present to user with workouts that are beneficial for the specific sport that they play
Inputs: User's sport
Requirements Description: Curate a list of workouts/exercises that are best for the specific sport to enhance performance of the user.
Outputs: List of Workout/Exercises for the specific sport that the user inputted into FitX

Requirement number: 2   Use Case number: 2
Introduction: Presents the user with healthy tips, so they are able to perform at their best for workouts and on the playing field
Inputs: User sports,
Requirements Description: Needs to have a sport that is provided by the user to be able to give a useful list of healthy tips
Outputs: List of healthy tips for the user to find beneficial for their sport

Requirement number: 3   Use Case number: 3
Introduction: The user wishes to create a custom workout for themselves
Inputs: Muscle group
Requirements Description: Upon inputting 0 or more muscle groups a curated list of exercise will be presented to the user. Premade workouts will also be shown as options
Outputs: A personalized workout plan for 1 or more workouts

Requirement number: 4   Use Case number: 4
Introduction: Creating an account on FitX
Inputs: User's full name, age, weight, height, specific sport, email, experience level
Requirements Description: The user would need to input this information to get a list of workouts/exercises that can be useful in their sport.
Outputs: User is now able to view their personalized workout plan with all the information they have provided.

Requirement number: 5   Use Case number: 5
Introduction: While the user is working out, or after they have worked out, they will be able to input data pertaining to it
Inputs: User data from workout
Requirements Description: FitX will prompt users to answer numerical questions about their workout. After it will output the data to our database
Outputs: Data from the workout will be saved to our database

Requirement number: 6   Use Case number: 6
Introduction: Users will be able to view a video demonstrating how to properly do a workout/exercise after selecting a workout
Inputs: User workout/exercise
Requirements Description: Videos will be pulled from external sources and paired with the correct exercise to show users

Outputs: Video shown to user when selecting a workout/exercise to do

Requirement number: 7   Use Case number: 7
Introduction: Users may select various workouts from our selection and add them to workout plan
Inputs: Exercise chosen
Requirements Description: Various exercises and a way to choose them must be made available to the user, separated by categories. User may add them to their personal workout plan or click on them to learn more.
Outputs: Users are able to select a workout by clicking on it, or add it to their personalized plan by selecting an Add button next to it. These workouts differ section to section depending on what they are for.

Requirement number: 8   Use Case number: 8
Introduction: User can opt to receive notifications or not
Inputs: Opt in, Message
Requirements Description: There must be a way for users to receive notifications regarding their workouts. Could be a reminder of an upcoming workout or a message showing progress.
Outputs: Notification to user about workouts.

Requirement number: 9   Use Case number: 9
Introduction: The FitX app offers a comprehensive progress tracking system.
Inputs: User's fitness data, goals, and preferences.
Requirements Description: The app must accurately record and display fitness progress, allowing users to customize their goals and receive relevant insights.
Outputs:Users can view their fitness journey, track improvements, and receive notifications and insights to stay motivated and informed.

Requirement number: 10   Use Case number: 10
Introduction: User is recommended when to take a break and when to do easier workouts based on performance.
Inputs: Completion status of workouts and the amount of workouts in a period of time.
Requirements Description: User receives recommendations from the app to perform certain tasks based on performance.
Outputs: Exercises or rest days to improve performance.

Requirement number: 11   Use Case number: 11
Introduction: User has the option to provide feedback on a particular exercise.
Inputs: User feedback
Requirements Description: User provides their feedback regarding how they feel about the exercise's content
Outputs: A message appreciating the user's feedback.

Requirement number: 12   Use Case number: 12
Introduction: The FitX app provides a gamified fitness experience with achievements.
Inputs: User's fitness data, activity tracking, and achievement criteria.

Requirements Description: The app must accurately track user activities, award achievements based on predefined criteria, and allow users to optionally share their achievements on social media.

Outputs: Users can view, earn, and share their fitness achievements, enhancing motivation and engagement in their fitness journey.
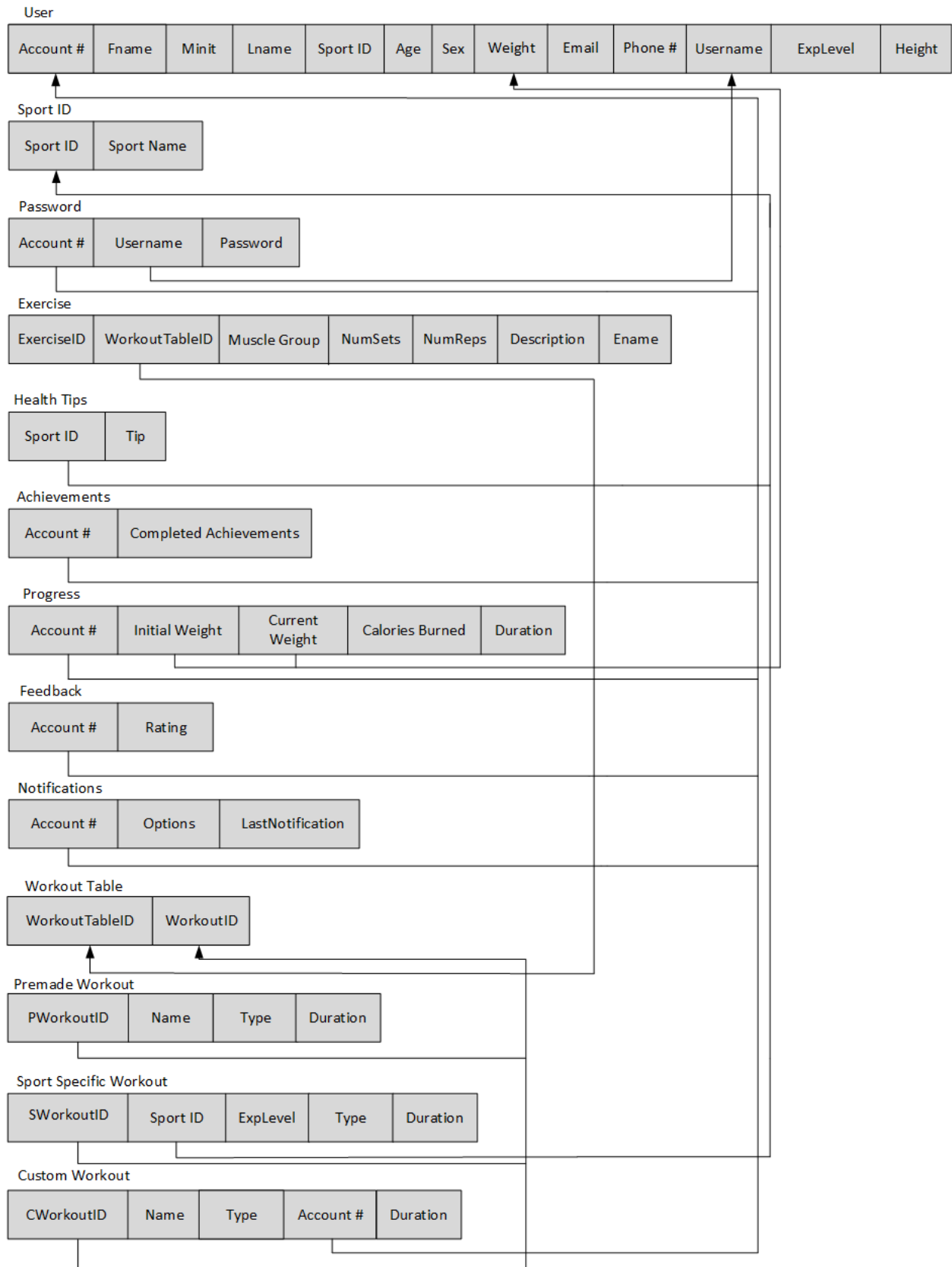
Database Specification

Parent Tables:

- User: Account # (PK) - int, FName - char, Minit - Char, LName - char, Sport ID - int, Age - int, Sex - char, Weight - int, Email - vchar, Phone # - int, Height - int, ExpLevel - char, username - vhar

- Sport ID: Sport ID (PK) - int, Sport Name - char

- Sport Specific Workout: SWorkout ID (PK) - vchar, Type - char, Sport ID (FK) - int, ExpLevel - char, Duration -int

- Premade Workout: PWorkout ID (PK) - vchar, Type - char, Name - char, Duration-int

- Custom Workout: CWorkout ID (PK) - vchar, Account # (FK) - int, Type - char, Name - char, Duration - int

- Exercise: Exercise ID (PK) - int, Workout Table ID (FK) - int, Muscle group - char, NumSets - int, NumReps - int, Description - char, EName - char

- Workout Table:Workout Table ID (PK) - int, Workout ID- vhar
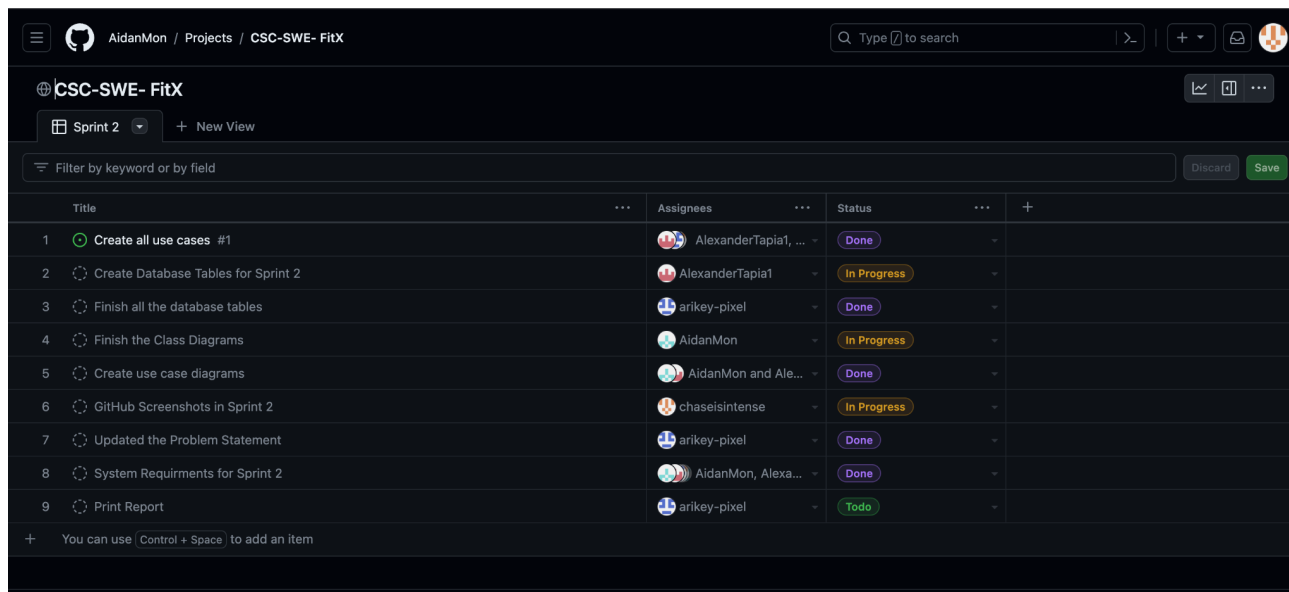
Child Tables:

- Password: Account # (FK) - int, User name - char, Users Password - vchar

- HealthTips: Sport ID (FK) - int, Tip - vchar

- Achievements: Account # (FK) - int, Completed Achievements - char

- Progress: Account # (FK) - Int, Initial weight - int, Current weight - int, Calories burned - int, WorkoutDuration - int

- Feedback: Account # (FK) - int, Rating - int

- Notifications: Account # (FK) - int, Options - char, LastNotification - Date

User

Account #	Fname	Minit	Lname	Sport ID	Age	Sex	Weight	Email	Phone #	Username	ExpLevel	Height

Sport ID

Sport ID	Sport Name

Password

Account #	Username	Password

Exercise

ExerciseID	WorkoutTableID	Muscle Group	NumSets	NumReps	Description	Ename

Health Tips

Sport ID	Tip

Achievements

Account #	Completed Achievements

Progress

Account #	Initial Weight	Current Weight	Calories Burned	Duration

Feedback

Account #	Rating

Notifications

Account #	Options	LastNotification

Workout Table

WorkoutTableID	WorkoutID

Premade Workout

PWorkoutID	Name	Type	Duration

Sport Specific Workout

SWorkoutID	Sport ID	ExpLevel	Type	Duration

Custom Workout

CWorkoutID	Name	Type	Account #	Duration

Github Screenshots

Github Link: https://github.com/AidanMon/CSC-SWE-FitX

Screenshot of the FitX Project Page: