

Final Project: Overview & App Context

https://www.figma.com/team_invite/redeem/hxeeCXMPM8JtW2w4jf9kXO

Working Title:



Introduction:

This app is a fitness improvement app designed to help you get the best workout even if you're a beginner or experienced in the gym, our app provides an accurate range of workouts tailored to your goals and fitness level. The app will tell you the best workouts to do based on the muscle groups that you want to improve. With easy-to-follow video tutorials and a recommended amount of sets and reps, you will be able to maximize your workout sessions. By plugging in your weight and date, the user will be able to track their weight and access their daily changes.

Stakeholder Population:

- Users
- Gyms
- Independent investors (shareholders)
- Fitness Influences (for the videos)
- Sports Therapist (To recommend workouts)
- Programmers of App

Features:

- Ability to keep track of potential workout plans throughout a designated time period (day, week, month, year).
- See the difficulty level of workouts that beginners can do.
- Instructional videos within the app that show the proper way to complete workouts.
- Descriptions of recommended sets and repetitions for the user to follow.
- Interactive graph to log progress after workouts.
- Find workouts that can be easily done at home without going to the gym.

Market Comparison and App Rationale:

There are a variety of products, services, or specified apps that will work to offer some of the very same features that we intend to put into Train. Apps like Nutrition Coach, MyFitnessPal, and Yuka provide their users with a significant amount of options for nutritional control and they cater more towards the health of the user and looks at calorie counting and meal plans. However, not as much of their efforts are put in providing the user with workouts and recommendations on how to complete them. Looking at that, we decided that it is imperative that we adapt features to make some aspects of our app as unique as possible in the areas that these existing apps may be lacking in. For instance, our app moved away from the nutritional goals and instead looked at the fitness goals by providing a diverse library that caters to all fitness levels and interests. From beginner-friendly routines to advanced challenges, we ensure that every user finds something suitable and engaging. In addition, no matter the age group, most growing adults would benefit from the development of this app and its potential features. Choosing a well balanced exercise routine can be difficult, as there are rarely any guidelines that fit everyone in the general population. By streamlining this process and making it easier within one app, we hope to be able to offer a service that helps many people.

Scope:

For our app we plan to give the users a variety of workouts that are aimed to benefit them during their workout and fitness journey. We aim to give direction to those who are looking to get into working out, but aren't sure on where to start. There will also be guidance for those who already know the basics but want to mix things up. We will start with the signing up of the user where the user will be given the prompt to type their name, gender, and age. The age is only there to make sure the user isn't too young, but age will be a requirement in order to continue to use the app. Then the user will set up a username and password to use. When the user first looks for their workout, the user will be able to filter through the library of workouts with the choices of what region of the body they want to workout. From there on they will choose what level of difficulty they

want their exercise to be along with if you are at home or at a gym. Users will also be given the option to use the built-in weight tracker that gives the user a visual helper to see how they have been doing during their fitness journey. The app will give access to specialized workouts that focus on select areas of the body that people would like to work on as well as suggestions for other areas that could lead to bettering their fitness know-how. This app is going to be available to any user over the age of 16 for the purpose of allowing for people to get into a healthy habit while they are young. To prevent any unhealthy nutritional habits that could form for teenagers, we will block the nutritional tools for anyone under the age of 18. We also believe that introducing videos that involve workout and warm up techniques is beneficial to the user so we will provide a sample video that will be linked to each type of warmup. This will allow for users to prevent injury if the workout is done incorrectly. The user will also have a weight tracker that shows their progress over their time using the app.

Now for things that our app will not be looking to do as it concerns its use as a fitness app. Our primary goal as a fitness app is to help direct the users to a healthy life and make the user feel that they are benefiting from using our app. Learning how to perform workouts correctly and with efficiency is one of our main goals in developing the app. The Idea of providing a weight tracking graph is to help encourage the user as they see the line go down over time. We wont need to display many Ads except the ones after videos, and we won't be implementing and tracking user info outside of the app. We will also not release any of our users information as the data they provide is a very personal part of their identity.

Getting data and integrating with other systems:

The app will bring in data that is from trends, knowledgeable sources or from a curated library.

The app can find trends that are being populated throughout the internet and recommend them to the library to introduce a few or many new types of exercise. The Devs would then have to implement a new exercise in the library and fill out all required info on that exercise.

Through knowledgeable sources, the app would curate exercises into the library and label them with the needed information to the extent that it is able to. The devs would then first confirm the new exercise and decide if it is to be added or blocked from further processing. If the new exercise does pass, the devs just like before would fill in the rest of the needed information like video, difficulty and location.

The last way we would gather data is from a self curated library that we would put together as we update the app. We would probably start off with this type of gathering method and move on once we have a sufficient starting amount.

For connecting with other systems, we would likely connect it to any known consistently updating list of new and old exercises that is publicly available so that we would be some of the first to have the new exercise ready for our users. For Future development, we would make it possible to share health data from fitness watches and other monitoring data similar to how we are able to track weight.

User Types:

Our intended audience is the people that are either taking their first steps into getting into fitness and those who already have a good idea about what they want to do. For beginners, our app serves as an easy library and instructor that provides a structured workout plan, easy-to-follow exercises, and informative videos to promote healthy and quality exercise. With clear instructions and gradual progression, beginners can navigate their workouts with ease and avoid feeling confusion. On the other hand, advanced users will have a feeling of never knowing, “What should I do today?” as they can easily find any workout that fits their routine.

For example, Sarah recently decided to prioritize her health and wellness but feels overwhelmed by the idea of starting a fitness routine. She is looking for guidance, structure, and motivation to help her get started and stay consistent. Her main goal is to establish healthy exercise habits and gradually improve her fitness level. Our app will help her to understand her current level of fitness know-how and can filter out the types of workouts that wouldn't fit her routine. She can then watch instructional videos in order to get her form right and not hurt herself. She can also keep track of her weight if she

desires. Once she gets more used to her fitness routine and she wants to implement more advanced exercises, our app will then show her some new exercises that she may like.

Regardless of the end goal, there is an emphasis on our app being beginner friendly, as we have attempted to implement things in a way that allows personal growth for the individual. Users can start with any amount of experience in exercising or lifting weights. There is also no ultimate requirement for weight, height, or general body builds. As long as they come with a desire to better themselves, our app will be beneficial to all who intend on utilizing it.

Tasks by User Type:

Dev / Admin Status:

- Access to user data (User Consent)
- Data manipulation
- Add/Delete from Library

Other Dev / Admin Task:

User Assistance:

- Ability to assist users if they need help (e.g., password reset, change username).

Library Update:

- Has the ability to add/delete workouts and their information
- Change Videos for workouts as needed

App Security:

- Make sure users data is safe
- Ensuring that the videos are appropriate

Testing / Quality Assurance:

- Conduct thorough testing to identify and fix bugs, ensure functionality, and maintain app performance.

Progress Tracking:

- Implement a tracking mechanism to record user weight loss.

Backend Development:

- Set up and maintain the server infrastructure to handle user accounts, data storage, and app functionality.

User Status:

- Types of exercises to focus on based on specified goals and user measurement.

- Access to a wide variety of workouts.
- Ability to use the built in weight tracker.

Other User Task:

User Onboarding:

- Connect the account using email or social media login.
- Set up a profile with basic information such as age, gender, name, username and password.

Goal Setting / Personalization:

- Set specific fitness goals such as weight loss, muscle gain, or overall fitness improvement (on their own but implemented through the app).
- Choose preferred workout types (strength training, cardio, yoga) and frequency (daily, weekly).
- Filter any specific preferences or limitations (gym needed, difficulty level, with others).

Workout Selection:

- Browse the workout library based on your goals and preferences.
- Select individual workouts or filter workouts that are tailored to your fitness level and goals.

Workout Execution:

- Follow along with video tutorials and step-by-step instructions for each exercise.
- Track your progress during workouts using a built-in weight tracker.

Progress Tracking / Analysis:

- Input and track daily nutrition intake to complement your workout efforts.
- Record weight regularly to monitor progress.

Integration / Accessibility:

- Access the app on multiple devices (smartphones, tablets) for flexibility and convenience.



Home:




Search/Filter:

TRAIN

Search...



Upper Body


☐ BICEPS


☐ CHEST


☐ TRICEPS


☐ SHOULDERS

☐ Show More

Lower Body

CORE


BACK

Difficulty

☐ Easy


☐ Medium

☐ Hard

Spotter


☐ YES


☐ NO


Location


☐ Gym

☐ Home

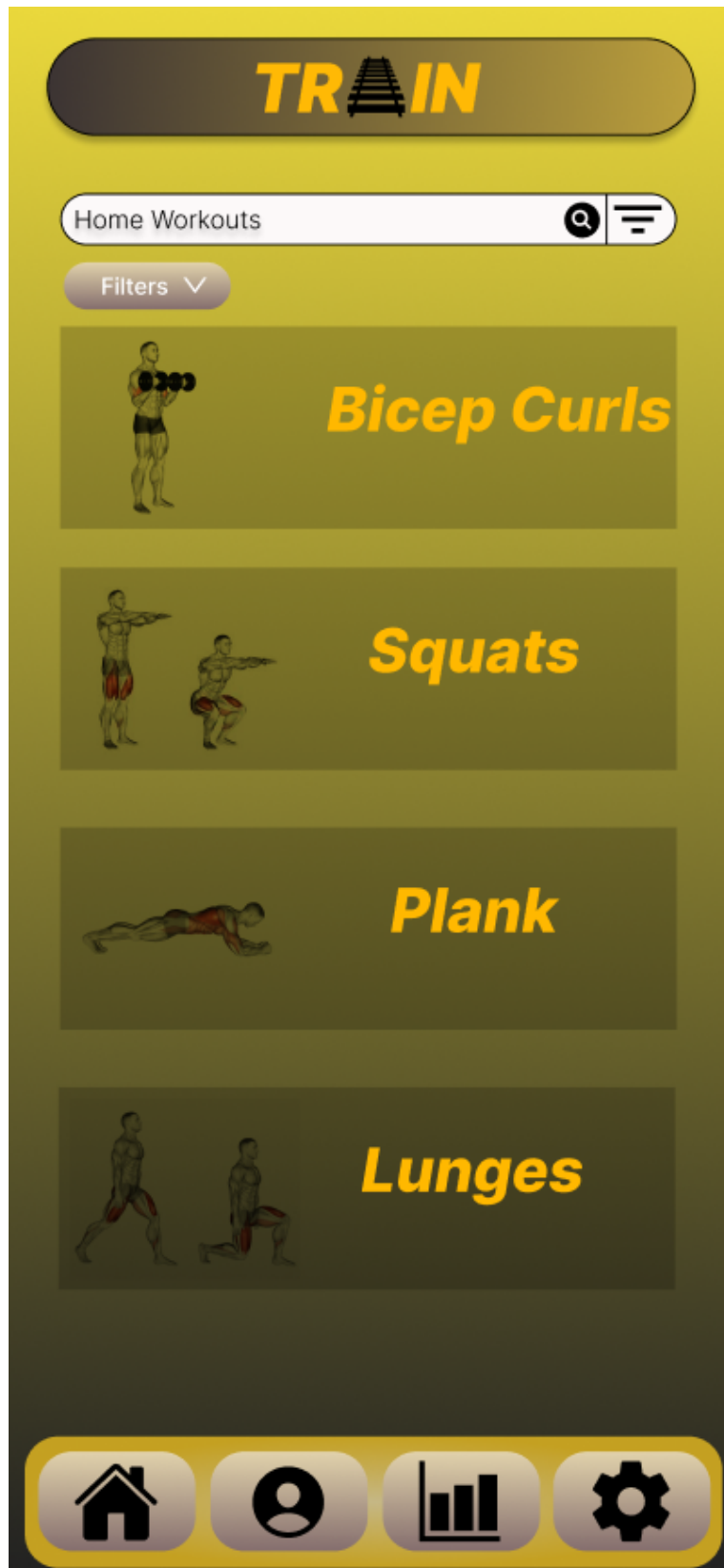




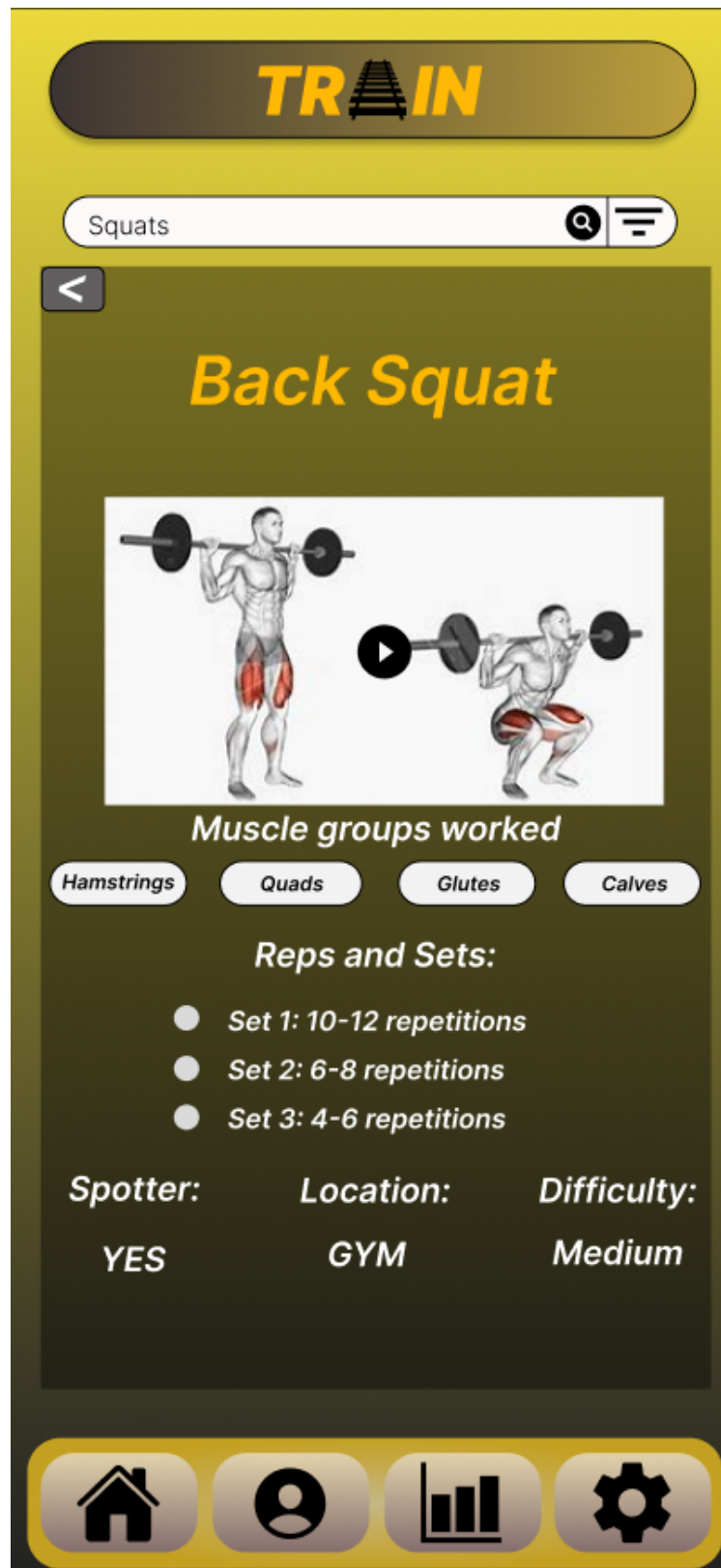




Search Result:



Exercise Information:



Profile Page:

TRAIN



Upload

First Name: Richard

Last Name: Green

Username: Richard235

Password: BigRich47392

User ID: 84729365

Gender: Male



Weight Loss Tracker:

TRAIN

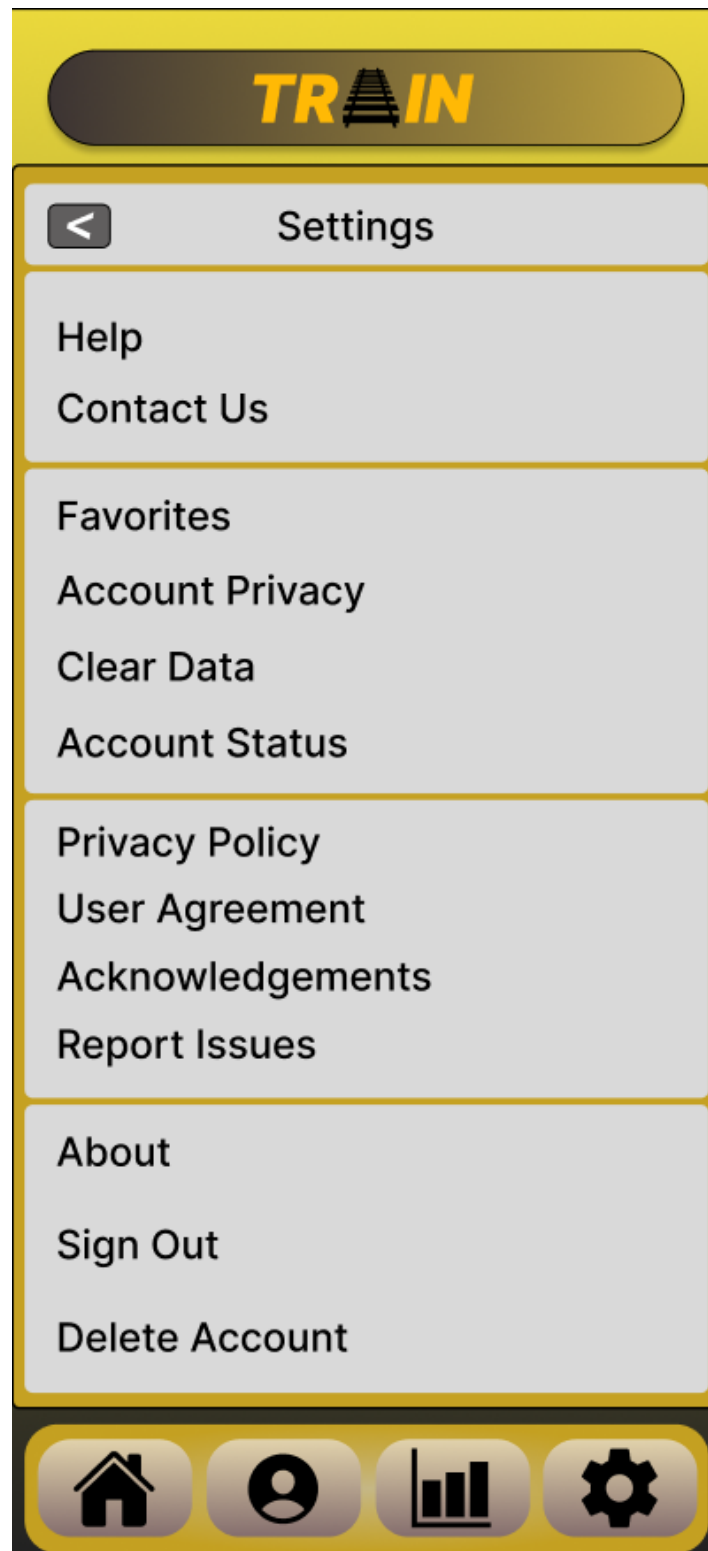


Day :

Weight :



Settings:



Metadata Schema:

Item Type 1: Exercises Information

Name of Property	Description of property	Example Value
Exercise name	The official, full name of the workout	Bicep Curl
Reps & Sets	The amount of Sets and corresponding reps to do during workout.	1 Set: 10-12 Repetitions
Video	Video of the workout	.mp3
Body Area	The assigned area that the exercise pertains too	Core, Upper Body, Lower Body, and Back
Muscle Group Worked	The targeted muscles that get worked	Chest, Biceps, Shoulder, Hamstring, Glutes
Difficulty	Shows user how difficult the workout is to beginners	Easy, Medium, Hard
Spotter	Sees if the user has a spotter or not	Yes, No
Location	Sees if User is working out at Home or a GYM	Home, Gym

Item Type 2: User

Name of Property	Description of property	Example Value
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First Name	The First Name of the User	Richard
Last Name	The last name of the User	Green
Gender	The gender of the user	Male
User ID	The assigned number ID of the user	84729365
User Picture	Shows picture of their choosing using upload button	.jpg
Username	Given name that the user provides	Richard235
Password	The code that the user uses to login	BigRich47392

Item Type 3: Weight Tracker

Name of Property	Description of property	Example Value
User	The user that the data is tracking	Richard235
Weight	The weight that the user types in	165 lb

Date	The date that the user is logging the weight for	Wednesday
Weigh-in	Shows your weight progression on a line graph	Weight + date

Exercises Information Properties:

Property Name		Exercise Name
Item Type		Exercise Information
How will this property be encoded? Select ONE of these three rows to fill out:	Data Type	<i>String</i>
	Controlled Vocabulary	X
	Embedded Object	X
Mandatory property? (yes/no)		Yes
Sorting property? (yes/no)		Yes
Filtering property? (yes/no)		Yes

Property Name		Reps & Sets
Item Type		Exercise Information
How will this property be encoded? Select ONE of these three rows to fill out:	Data Type	<i>String</i>
	Controlled Vocabulary	X
	Embedded Object	X
Mandatory property? (yes/no)		Yes

Sorting property? (yes/no)	No
Filtering property? (yes/no)	No

Property Name		Video
Item Type		Exercise Information
How will this property be encoded? Select ONE of these three rows to fill out:	Data Type	X
	Controlled Vocabulary	X
	Embedded Object	MP4
Mandatory property? (yes/no)		Yes
Sorting property? (yes/no)		No
Filtering property? (yes/no)		No

Property Name		Body Area
Item Type		Exercise Information
How will this property be encoded? Select ONE of these three rows to fill out:	Data Type	X
	Controlled Vocabulary	Core, Upper Body, Lower Body, and Back
	Embedded Object	X
Mandatory property? (yes/no)		Yes
Sorting property? (yes/no)		Yes
Filtering property? (yes/no)		Yes

Property Name		Muscle Groups Worked
Item Type		Exercise Information
How will this property be encoded? Select ONE of these three rows to fill out:	Data Type	X
	Controlled Vocabulary	<i>Hamstrings</i> <i>Pectorals</i> <i>Lats</i> <i>Rhomboid</i> <i>Trapezius</i> <i>Teres Muscle</i> <i>Erector spinae</i> <i>Biceps</i> <i>Triceps</i> <i>Deltoids</i> <i>Obliques</i> <i>Hamstrings</i> <i>Gluteals</i> <i>Abductor</i> <i>Adductor</i> <i>Glutes</i> <i>Quads</i> <i>Calves</i>
	Embedded Object	X
Mandatory property? (yes/no)		Yes
Sorting property? (yes/no)		Yes
Filtering property? (yes/no)		Yes

Property Name		Difficulty
Item Type		Exercise Information
How will this property be encoded? Select ONE of these three rows to fill out:	Data Type	X
	Controlled Vocabulary	<i>Easy</i> <i>Medium</i>

		<i>Hard</i>
	Embedded Object	<i>X</i>
Mandatory property? (yes/no)		Yes/No
Sorting property? (yes/no)		Yes
Filtering property? (yes/no)		Yes

Property Name		Spotter
Item Type		Exercise Information
How will this property be encoded? Select ONE of these three rows to fill out:	Data Type	<i>X</i>
	Controlled Vocabulary	<i>YES</i> <i>NO</i>
	Embedded Object	<i>X</i>
Mandatory property? (yes/no)		Yes/No
Sorting property? (yes/no)		Yes
Filtering property? (yes/no)		Yes

Property Name		Location
Item Type		Exercise Information
How will this property be encoded? Select ONE of these three rows to fill out:	Data Type	<i>X</i>
	Controlled Vocabulary	<i>Home</i> <i>Gym</i>
	Embedded Object	<i>X</i>

Mandatory property? (yes/no)	Yes/No
Sorting property? (yes/no)	Yes
Filtering property? (yes/no)	Yes

User Properties:

Property Name		First Name
Item Type		User
How will this property be encoded? Select ONE of these three rows to fill out:	Data Type	<i>String</i>
	Controlled Vocabulary	X
	Embedded Object	X
Mandatory property? (yes/no)		Yes
Sorting property? (yes/no)		No
Filtering property? (yes/no)		No

Property Name		Last Name
Item Type		User
How will this property be encoded? Select ONE of these three rows to fill out:	Data Type	<i>String</i>
	Controlled Vocabulary	X
	Embedded Object	X
Mandatory property? (yes/no)		Yes
Sorting property? (yes/no)		No

Filtering property? (yes/no)	No
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Property Name		Gender
Item Type		User
How will this property be encoded? Select ONE of these three rows to fill out:	Data Type	X
	Controlled Vocabulary	<i>Select</i> <i>Male</i> <i>Female</i> <i>Other / Rather Not Say</i>
	Embedded Object	X
Mandatory property? (yes/no)		No
Sorting property? (yes/no)		No
Filtering property? (yes/no)		No

Property Name		User ID
Item Type		User
How will this property be encoded? Select ONE of these three rows to fill out:	Data Type	<i>String</i>
	Controlled Vocabulary	X
	Embedded Object	X
Mandatory property? (yes/no)		Yes
Sorting property? (yes/no)		No

Filtering property? (yes/no)	No
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Property Name		User Picture
Item Type		User
How will this property be encoded? Select ONE of these three rows to fill out:	Data Type	X
	Controlled Vocabulary	X
	Embedded Object	JPG
Mandatory property? (yes/no)		No
Sorting property? (yes/no)		No
Filtering property? (yes/no)		No

Property Name		Username
Item Type		User
How will this property be encoded? Select ONE of these three rows to fill out:	Data Type	String
	Controlled Vocabulary	X
	Embedded Object	X
Mandatory property? (yes/no)		Yes
Sorting property? (yes/no)		No
Filtering property? (yes/no)		No

Property Name	Password
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Item Type		User
How will this property be encoded? Select ONE of these three rows to fill out:	Data Type	<i>String</i>
	Controlled Vocabulary	X
	Embedded Object	X
Mandatory property? (yes/no)		Yes
Sorting property? (yes/no)		No
Filtering property? (yes/no)		No

Weight Tracker Properties:

Property Name		Weight-In
Item Type		Weight Tracker
How will this property be encoded? Select ONE of these three rows to fill out:	Data Type	<i>Integer</i>
	Controlled Vocabulary	X
	Embedded Object	X
Mandatory property? (yes/no)		Yes
Sorting property? (yes/no)		No
Filtering property? (yes/no)		No

Property Name		Day
Item Type		Weight Tracker
How will this property be encoded? Select ONE of	Data Type	<i>Date</i>
	Controlled Vocabulary	X

these three rows to fill out:	Embedded Object	X
Mandatory property? (yes/no)		Yes
Sorting property? (yes/no)		No
Filtering property? (yes/no)		No

Property Name		Weight
Item Type		Weight Tracker
How will this property be encoded? Select ONE of these three rows to fill out:	Data Type	<i>String</i>
	Controlled Vocabulary	X
	Embedded Object	X
Mandatory property? (yes/no)		Yes
Sorting property? (yes/no)		No
Filtering property? (yes/no)		No

Property Name		User
Item Type		Weight Tracker
How will this property be encoded? Select ONE of these three rows to fill out:	Data Type	<i>string</i>
	Controlled Vocabulary	X
	Embedded Object	X
Mandatory property? (yes/no)		Yes
Sorting property? (yes/no)		No

Filtering property? (yes/no)	No
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Metadata Records:

Exercises:

Exercise Name	Reps & Sets	Video	Body Area	Muscle Group Worked	Difficulty	Spotter	Location
Bicep Curl	4 Set: 8-10 Repetitions	https://www.youtube.com/watch?v=Nkl8WnH6tDU	Upper Body	Biceps, Chest, Shoulders	2	No	Home or Gym
Squats	3 Sets: 10-12 Repetitions	https://www.youtube.com/watch?v=aPYCiuiB4PA	Lower Body	Quadriceps, Glutes, Hamstrings, Adductor, Hip Flexors, Calves	1	No	Home or Gym
Plank	3-5 Sets: 10-15 Seconds	https://www.youtube.com/watch?v=pSHjTRCQxIw	Core	Transverse abdominis, Rectus abdominis, Oblique muscles, Shoulders, Chest	1	No	Home or Gym
Lunges	3-4 Sets: 15-20 Repetitions	https://www.youtube.com/watch?v=wwwXEx	Lower Body	Quadriceps, Gluteus Maximus, Adductor	1	No	Home or Gym

		-pQ		Magnus, Calves, Hamstrin gs Hips			
Sit-Ups	2-3 Sets: 15-20 Repetitio ns	https://w ww.youtu be.com/w atch?v=1f bU_MkV7 NE	Core	Rectus Abdomini s, Obliques, Transver sus Abdomini s	1	No	Home or Gym

User:

First Name	Last Name	Gender	User ID	User Picture	Username	Password
Carl	Weathers	Male	234057706	Carl_Weat hers.jpg	CWeathers 2019	238ryfs3!@
Richard	Green	Male	84729365	Richard_Gr een.jpg	Richard235	BigRich473 92
Tammie	Hall	Female	443672319	Tammie_H all.jpg	HallingtonT	THallPrice Row3

Weight Tracker:

User	Weight	Date	Weigh-in
Richard235	165 lb	Wednesday	200 lb + 5/4/24
CWeathers2019	145 lb	Tuesday	180 lb + 5/8/24
HallingtonT	120 lb	Saturday	150 lb + 5/12/24