Progress Report

- Increment 1 -
Group #4

1) Team Members

- Matthew Cegala, MLC22R, @mattprog/@mattprogfsu
- Amanda Orama, ao22h, @amandaorama
- Nicholas Holguin, NCH22A, @Nicholas87100
- Ashton Singpradith, AS23DI, @AshSingg
- Matthew Hummel, MBH22, @mhummel04

2) Project Title and Description

Smart Gym Tracker

Smart Gym Tracker is a web-based fitness tracking application that lets users log workouts, record biometric data, track milestones, and view trends. Smart Gym Tracker utilizes a React + Tailwind CSS frontend, C# backend, and a MySQL database to create a simple but powerful gym tracker app that allows users to simply enter their workout data and see trends.

3) Accomplishments and overall project status during this increment

Overall: Created lots of documentation and structure about how the class library will be set up. Also, a majority of the third-party dependencies were established and needed to allow our project to function. Currently on schedule with our proposed releases and believe we will continue to be able follow this schedule. There are no changes in our features and communication at this time.

Frontend: Created low/high fidelity prototypes, Implemented Workout (strength/cardio sets, reps) and Biometric Pages input forms with temporary placeholders, local storage, and history display. Admin Page placeholders, and API service files.

Backend: Created the foundational API service and also set up much of the setup to be able to communication between the systems.

Database: Created a schema, environments setup steps, and ERD diagram. Will be ready to send and receive communication from the backend.

Source Control: Setup base project on GitHub with master branch and Increment branches, with any added branches being merged with Increment 1 upon completion.

4) Challenges, changes in the plan and scope of the project and things that went wrong during this increment

Frontend: Organizing frontend components and splitting pages into reusable modules was initially challenging.

Backend: A challenge during this increment was making sure the API biometric endpoints functioned correctly for a reliable integration with the front-end. This challenge was dealt with by testing the endpoints in Swagger and making sure the expected results were returned. Another challenge was setting up the controllers in a way that would function nicely with the everyone else's code. One challenge on the side of the backend was making sure the API was set up correctly with both the calls from swagger, and planning for its integration into our custom designed objects.

Database: A challenge faced is how to get the database to easily be set up between environments. Since everything is being done locally and via GitHub, there have been some decisions over how to get the schema and everything to carry over between developers. The current directive is to have the schema and setup instructions in the GitHub repository for others to know how to "install" the database on their system to be used with the rest of the application.

5) Team Member Contribution for this increment

Matthew Cegala:

- Progress report – I wrote main parts to sections 6, 7, 8. I was also involved in writing and reviewing all sections.
- RD document – I created the designs for sections 4 and 5 which were the Use Case and Class Diagrams. I added and refined sections 1, 2, 3, and 7. I contributed to all parts in either the form of writing small sections of it or reviewing it for accuracy.
- IT document - I contributed to parts 1-2 with all database requirements.
- Source code – Created the class library section that will be utilized by all three systems to set up their structure. I also created the database schema, DDL, script and instructions that can be used to set up that on each machine. I also created the GitHub repository and have been maintaining the tickets, pull requests, and other administrative features to ensure proper documentation.
- Video/presentation - Designed the PowerPoint presentation and prepped information that was to be discussed. Also did most of the speech in the presentation, besides for the frontend demo.

Amanda Orama:

- Progress Report: Contributed to all sections regarding the front-end. Involved in reviewing sections and refining them. Started sections to make it easier to complete for the rest of the team.
- RD Document: I wrote section 1, contributed to sections 1, 2, 3, 6, 7
- IT Document: Filled out sections 1 and 2 needed for increment 1, 2 regarding frontend.
- Source Code: Implemented the frontend UI, including WorkoutPage components (WorkoutForm, CurrentSets, WorkoutHistory, etc) Biometric page with local storage/history and admin page for managing workout types, muscles, and exercises. Created drat service files ready for backend integration. GitHub issues/documentation and pull requests for frontend work. Reviewed teammates branches to ensure proper alignment with project structure and standards.
- Video: Presented demo for frontend

Ashton Singpradith

- Progress Report: I filled out my part of the back-end challenges (4) along with this section (5). I also reviewed the other sections completed by my fellow groupmates and appreciate the work they did on the majority of this report.
- RD Document: I did not have any contributions but did review the document and approved of everything written by my groupmates.
- IT Document: I did not have any contributions but again reviewed the document and approved of everything written by my groupmates.
- Source Code: Built the API backend for the biometrics and exercise biometrics endpoints. Created models for exercise and biometric data and used in-memory storage from user entries through the services: BiometricsService and ExerciseBiometricsService. Tested the GET and POST endpoints with Swagger in order to integrate with the front-end.
- Video: Did not contribute but reviewed the video and was happy with the outcome.

Nicholas Holguin

- Progress Report: Contributed to the accomplishments section and the challenges section of this document.
- RD Document: I reviewed the document and made corrections
- IT Document: Contributed to section 2 of the document and reviewed the completed document
- Source Code: I built the API code for user information and authentication endpoints. Created models for User and wrote controllers for registration and authentication. Submitted a pull request that was peer-reviewed and merged. Also reviewed and provided feedback on my teammates pull requests. Tested the endpoints with Swagger.
- Video: I didn't contribute to the video, but I reviewed it and was very impressed with how it turned out.

Matthew Hummel

- Progress Report: Added a note to the challenges section of this document.
- RD Document: Reviewed this document.
- IT Document: Reviewed this document.
- Source Code: Built the API Module code, got it working so we could open Swagger and pull in consistent results from the API.
- Video: Reviewed the video and approved.

6) Plans for the next increment

For the increment, we are planning on providing the following:

- Get the frontend, backend, and database communicating
- Users and Identity Management (IDM)
- Login Screen
    - Creates new user
    - Forgot my password
    - Populate user permissions and data upon login

- Admin login
    - Admin specific pages
    - User Management Page

7) Stakeholder Communication

Subject: Smart Gym Tracker Progress and Current Status

Dear Stakeholders,

This email is intended to provide a brief update on our Smart Gym Trackers progress and status. All current increment requirements and goals have been met, and our team is on track to continue meeting these release deliverables and dates outlined.

In this release we have provided you with the framework for our three main systems, our frontend, backend, and database systems. These frameworks will be the foundation for the app and are to be expanded upon in the future releases to ensure the core functionality of our application works seamlessly. We have also provided you with more refined documentation on our release plans, including what features will be provided and when.

For this release, we have created the main structure of the data and created documentation about how and where this works for our team to be able to work more efficiently in the future.

The front-end team has built the main screens for logging workouts, tracking biometrics, and managing workout types, muscles, and exercises. The pages are organized, working, and are prepared to connect with the system that stores the data.

The backend team has built the skeleton of the data it will send and receive, and it is being prepped for communication to get the basic functionality of our app working.

The database structure and libraries have been created, which in the next release will be utilized by our other systems to store the user data.

We have currently not encountered anything that should halt our releases, and we plan to keep this pace and meet these outlined delivery goals for future releases.

We hope this release has satisfied and exceeded your expectations. Please reach out with any questions you may have.

Best Regards,

Smart Gym Tracker Development Team

8) **Link to video**

https://youtu.be/8vRJD14jwpw