AI Fitness Trainer

*Progress Report #16*

# TL; DR

**On track (*Github:***[*AI-FitnessTrainer*](https://github.com/aminuabdusalam/AI-FitnessTrainer)*)***.** Continued build of webapp by **02/20.**

# Project Goals (Recap)

The goal of the project can be summarized as developing an **AI fitness trainer** embedded with **storage and recommender systems** and an **AI virtual mouse**.

The AI fitness trainer will help the user lose weight, gain muscle, and accomplish other fitness goals. In addition, it'd attempt to understand the client goals, develop a fitness routine, recommend a healthy eating plan, and ensure all exercises are performed correctly.

# Highlights

* Continued build of Webapp. [Added recorded video view et about app page by aminuabdusalam · Pull Request #9 · aminuabdusalam/AI-FitnessTrainer (github.com)](https://github.com/aminuabdusalam/AI-FitnessTrainer/pull/9)
  + Implemented an “About App” Page that gives background information about the app/project and the developer. Added a button that directs users to this page.

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* + Added additional capabilities to recording feature
    - After recording each session, the user can now see the recording loaded on their screen for immediate viewing/assessment of their performance.
    - Saved recorded video as an .avi for ease and then used ffmeg to convert .avi video to .mp4 since the GUI techstack (streamlit) mostly supports .mp4

A screenshot of a video game

Description automatically generated A screenshot of a video game

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The trainer is in the image at the top and the recording is the image under.

* + Ran into issue with saving recordings into the same file most likely because overwriting is not supported. Plan to fix this by deleting recordings after they have been accessed by the user.
  + Ran into issue of unsolicited video showing at the bottom of the “About App” page. Plan to fix this in the next sprint.
  + Couldn’t test app on with my own exercise (pushup, squat) videos and test the up-to-date app with webcam instead of uploaded video. Plan to complete the tests next sprint.

**Click Windows Media to Watch Demo:**

 A picture containing text, person, indoor

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# Lowlights

None

# Next Steps

* Continue Web app build.
  + Fix pending issues and testings from last sprint by **03/05.**
  + Develop a “report” page that showcases details about their fitness sessions at the end of each session including an option to send these details to their mail by **03/05**
  + Add authentication/login capabilities by **03/13**

# Timeline

This section lists the milestones of the project spread across two semesters (Fall 2022 and Spring 2023).

|  |  |  |  |
| --- | --- | --- | --- |
| **Trainer service build completed** | | 11/21 | Completed |
| **WINTER BREAK 2022** | | | |
| **Project Review** (Current status and Re-evaluation of Next Steps as Needed) | | 01/16 | Completed |
| **Implementation** | Complete FigJam design for the Web app | 01/22 | Completed |
| Build Web app with only one exercise type option | 01/22 | Completed |
| Augment website with multi pages to allow for selection of exercise choice | 02/05 | Completed |
| Implement “about developer and project” page including instructions on how to use product | 02/20 | **Completed** |
| Develop a “report” page that showcases details about their fitness sessions at the end of each session including an option to send these details to their mail | 03/05 |  |
| Add authentication/login capabilities | 03/13 |  |
| Complete Hand Tracking Build (Stretch Goals) | 03/13 |  |
| Complete AI Virtual Mouse Build (Stretch Goals) | 03/27 |  |
| **Quality Testing** (arrange project file and refs, test project) | | 04/3 |  |
| **Final Presentation Draft** | | 04/10 |  |
| Final Demo & Report | | 04/17 |  |