Summary of Hours and Justification

Hours Summary

Forrest Brown

Fall Semester Hours Summary

1. September 4th, 2023: Team meeting (1 hour)
2. September 6th, 2023: Team meeting (1 hour)
3. September 13th, 2023: Team meeting (.5 hours)
4. September 17th, 2023: Team meeting (.5 hours)
5. September 22nd, 2023: Team meeting (2 hours)
6. October 1st, 2023: Team meeting (.5 hours)
7. October 8th, 2023: Team meeting (.5 hours)
8. October 9th, 2023: Workout data research (3.5 hours)
9. October 19th, 2023: Team meeting (.5 hours)
10. October 23rd, 2023: MoCap research (3 hours)
11. October 26th, 2023: Team meeting (.5 hours)
12. November 1st, 2023: Python and C++ integration with flutter research (2.5 hours); OpenCV research (2.5 hours)
13. November 5th, 2023: Mobile app development boot camp (6 hours)
14. December 1st, 2023: Team meeting (.5 hours)

Spring Semester Hours Summary

1. January 20th, 2024: Team meeting (.5 hour)
2. February 9th, 2024: Team meeting (.5 hour)
3. February 16th, 2024: Team meeting (.5 hour)
4. February 19th, 2024: Team meeting (.5 hour)
5. March 1st, 2024: Team meeting (1 hour)
6. March 4th, 2024: Flutter installation, setup, troubleshooting (3 hours)
7. March 6th, 2024: Flutter and dart research / bootcamp (4 hours)
8. March 11th, 2024: Calendar skeleton implementation (6 hours)
9. March 18th, 2024: Team meeting (.5 hour)
10. March 20th, 2024: Calendar data passing (6 hours)
11. March 24th, 2024: Calendar data passing continued (4 hours)
12. March 25th, 2024: Team meeting (.5 hour)
13. March 29th, 2024: Predictive reps setup (5 hours)
14. April 2nd, 2024: Predictive reps logic (5 hours)

15. April 5th, 2024: Predictive reps logic debugging (5 hours)
16. April 6th, 2024: User settings edits for accessible data (3 hours); user settings implementation with selective reps (3 hours)
17. April 7th, 2024: Team meeting (.5 hour); predictive reps additional robustness (6 hours)
18. April 8th, 2024: Team meeting (.5 hour); entry page autofill based on workout type (8 hours); entry page auto clear (3 hours)

Total Hours Summary

The total amount of hours spent on the senior design project was 91 hours. The vast majority of these hours were spent in development, but a lot of time was also delegated to meetings with the team and our sponsors, and researching the tools, libraries, and methods we used (or were considering using.

Evan DiFilippo

Fall Semester Hours Summary

1. August 25th, 2023: Creating professional biography (1.5 hours)
2. September 4th, 2023: Team meeting (1 hour)
3. September 6th, 2023: Team meeting (1 hour)
4. September 8th, 2023: Conducting market/competitor research (3 hours)
5. September 9th, 2023: Continue conducting market/competitor research (3 hours)
6. September 13th, 2023: Team meeting (.5 hours)
7. September 14th, 2023: Creating initial design diagrams (Assignment #4) for team to review (2 hours)
8. September 15th, 2023: Polishing design diagrams before team meeting (1 hour)
9. September 16th, 2023: Researching different languages and determine which is best for our project (4 hour)
10. September 17th, 2023: Team meeting (.5 hours)
11. September 18th, 2023: Creating initial task list (Assignment #5) for team to review
12. September 22nd, 2023: Team meeting (2 hours)
13. September 30th, 2023: Creating initial milestones, timelines, and effort matrix (Assignment #6) for team to review (4 hours)
14. October 1st, 2023: Team meeting (.5 hours)
15. October 6th, 2023: Worked on my assigned part of the project constraints essay (Assignment #7) for team to review (1 hour)
16. October 8th, 2023: Team meeting (.5 hours)
17. October 10th, 2023: Research predictive overload and possible ways to predict it (5 hours)
18. October 16th, 2023: Created initial Powerpoint slides for the Fall Design Presentation (Assignment #8) for the team to review (3 hours)
19. October 17th, 2023: Created initial Powerpoint slides for the Fall Design Presentation for the team to review (2 hours)

20. October 19th, 2023: Team meeting (.5 hours)
21. October 20th, 2023: Recorded my portion of the Powerpoint slides (.5 hours)
22. October 26th, 2023: Team meeting (.5 hours)
23. October 28th, 2023: Peer reviewed other project within the spreadsheet (1 hour)
24. October 30th, 2023: Flutter environment setup and troubleshooting (3 hours)
25. November 2nd, 2023: Learning the concepts of Flutter (2 hours)
26. November 3rd, 2023: Continue to learn the concepts of Flutter (3 hours)
27. November 10th, 2023: Research different AI models for computer vision (5 hours)
28. November 15th, 2023: Research implementation of database with Flutter (5 hours)
29. November 23th, 2023: Updated the final design report to contain all the required information (Assignment #10) for team to review (4 hours)
30. December 1st, 2023: Team meeting (.5 hours)
31. December 1st, 2023: Updating the design report to be more detailed (3 hours)
32. December 2nd, 2023: Updating the design report to be more detailed (4 hours)

The hours spent on the senior design project during the fall semester were at least 67.5 hours. The value is determined strictly from the time I explicitly tracked my hours; thus, the hours are an underestimation of the total time spent on the project in the fall semester.

Spring Semester Hours Summary

1. January 19th, 2024: Creating initial test plan (Assignment #1) for the team to review (3 hours)
2. January 20th, 2024: Team meeting (.5 hour)
3. February 1st, 2024: Develop a test Flutter application (6 hours)
4. February 2nd, 2024: Create initial login page and sign up page (4 hours)
5. February 3rd, 2024: Connect the database to the login page and sign up page (5 hours)
6. February 4th, 2024: Create initial home page and charts page (6 hours)
7. February 5th, 2024: Create initial history page and setting page (4 hours)
8. February 6th, 2024: Connect all other pages to the database (5 hours)
9. February 8th, 2024: Creating initial user docs (Assignment #2) for the team to review (2 hours)
10. February 9th, 2024: Team meeting (.5 hour)
11. February 12th, 2024: Start working with different pose detection software (5 hours)
12. February 15th, 2024: Creating initial presentation slidedeck (Assignment #3) for the team to review (3 hours)
13. February 16th, 2024: Team meeting (.5 hour)
14. February 19th, 2024: Team meeting (.5 hour)
15. February 23th, 2024: Creating the initial auto track page (5 hours)
16. February 26th, 2024: Team meeting (1 hour)
17. February 29th, 2024: Creating initial Expo poster (Assignment #4) for the team to review (2 hours)
18. March 1st, 2024: Team meeting (1 hour)
19. March 3rd, 2024: Updating the UI for home page, charts page, and history page (5 hours)
20. March 4th, 2024: Allowing the view history page to edit and delete entries (6 hours)

21. March 7th, 2024: Adding dialog with information prefilled with current history information on the view history page when editing (6 hours)
22. March 10th, 2024: Create initial computer vision tracking for curls in the auto track page (7 hours)
23. March 12, 2024: Add ability for auto track page to track squats (4 hours)
24. March 18th, 2024: Team meeting (.5 hour)
25. March 19th, 2024: Created presentation for project (Assignment #5) and update the spreadsheet (4 hours)
26. March 25th, 2024: Team meeting (.5 hour)
27. April 1st, 2024: Work on allowing the application color to be changed from the settings (6 hours)
28. April 3rd, 2024: Cleanup and refine the user interface for the home page and chart page (3 hours)
29. April 5th, 2024: Create the expected values on the chart page (3 hours)
30. April 6th, 2024: Cleanup date time values to be easily convert from the user interface in to the database and vice versa (4 hours)
31. April 7th, 2024: Creating a more efficient way to move information through page on the application (6 hours)
32. April 7th, 2024: Team meeting (.5 hour)
33. April 8th, 2024: Clearing up and refining all elements of the project for the Expo (9 hours)
34. April 8th, 2024: Team meeting (.5 hour)

The hours spent on the senior design project during the spring semester were at least 119 hours. The value is determined strictly from the time I explicitly tracked my hours; thus, the hours are an underestimation of the total time spent on the project in the spring semester.

Total Hours Summary

The total hours spent on the senior design project was at least 186.5. Again, The value is determined strictly from the time I explicitly tracked my hours; thus, the hours are an underestimation of the total time spent on the project.

JP Burger

Fall Semester Hours Summary

1. September 4th, 2023: Team meeting (1 hour)
2. September 6th, 2023: Team meeting (1 hour)
3. September 13th, 2023: Team meeting (.5 hours)
4. September 17th, 2023: Team meeting (.5 hours)
5. September 22nd, 2023: Team meeting (2 hours)
6. October 1st, 2023: Team meeting (.5 hours)
7. October 8th, 2023: Team meeting (.5 hours)
8. October 19th, 2023: Team meeting (.5 hours)

9. October 26th, 2023: Team meeting (.5 hours)
10. December 1st, 2023: Team meeting (.5 hours)
11. October 1-31, 2023: Research other workout applications' UI design (5 hours)
12. November 1-30, 2023: Flutter tutorials (15 hours)
13. November 1-30, 2023: Research templates for Flutter applications (15 hours)
14. December 1-15, 2023: Create user interface mockups (5 hours)

The amount of hours spent on the senior design project during the fall semester was 47.5 hours.

Spring Semester Hours Summary

1. January 20th, 2024: Team meeting (.5 hour)
2. February 9th, 2024: Team meeting (.5 hour)
3. February 16th, 2024: Team meeting (.5 hour)
4. February 19th, 2024: Team meeting (.5 hour)
5. February 26th, 2024: Team meeting (1 hour)
6. March 18th, 2024: Team meeting (.5 hour)
7. January 1-31, 2024: Develop user interface (15 hours)
8. February 1-29, 2024: Develop user interface (15 hours)
9. March 1-31, 2024: Refine user interface (10 hours)
10. April 1-8, 2024: Apply finishing touches (5 hours)

The amount of hours spent on the senior design project during the spring semester was 48.5 hours.

Total Hours Summary

The total amount of hours spent on the senior design project was 96 hours.

Meeting Notes

Fall Semester

- September 4th, 2023

  - Getting to know each team member

  - Events of meeting:

    - Discussed each other's backgrounds

    - Reviewed each other's professional biographies (Assignment #1)

    - Created Project description (Group part of Assignment #2)

- September 6th, 2023

    - Discuss and work on Assignment #3

    - Events of meeting:

        - Reviewed each other's individual capstone assessment

        - Created the team contract

- September 13th, 2023

    - Initial contact with Kinetic Vision

    - Events of meeting:

        - Introductions

        - Discussed Project Ideas

        - Discussed expectations from Kinetic Vision

- September 17th, 2023

    - Discuss and work on Assignment #4

    - Events of meeting:

        - Discussed the details of the project

        - Finish the design diagrams

- September 22nd, 2023 (Kinetic Vision Meeting)

    - Meeting with Kinetic Vision to further discuss project details

    - Events of Meeting:

        - Affiliations:

            - Existing tools on the market lack desired features.

            - Current tools require a lot of manual data entry.

            - Lack of visualization tools/features to look at past data.

- Data entry issues:
  - Can't measure supersets - curls, and then immediately triceps
  - Drop Sets - reducing weight at end of sets
- RepCount:
  - Notes section next to movement
  - Normal, top half, bottom half
- Aspiration:
  - Reduce the data entry burden on the user
- Metrics:
  - Weight and rep count - of equipment/activity (e.g. dumb bells)
- New idea:
  - Metrics on the the human - key measurements to understand effectiveness/progress workout
  - Auto extract key human metrics from cell phone images
- Constraint/challenge:
  - User experience of setting up a tracking device/tool in a public vs. home environment
- Idea:
  - Can we do something where we measure the quality of the exercise/activity with simple metrics?
- Idea:
  - Feature for goals and planning.
  - Projections/predictions for hitting goals - long periods of time

- And also micro timeline suggestions to reach those goal

- Trying to set the correct expectations in terms of goals and current setting

■ Constraint/challenge:

- We are not experts fitness, want to avoid suggesting things that may not be valid/accurate

■ Perfect scenario/world:

- Screen facing user - front facing camera

- Hit track for current activity

- App tracks activity through the entire duration of the activity - e.g. all 3 sets.

- Note: Don't limit the number of reps that can be tracked

- Finish exercise and all data is auto logged

■ Constraint/challenge: (with computer vision)

- May be challenging to auto log the weight being used for activity, but much easier to log the reps

■ Idea:

- Tempo: during the activity - faster or slower during exercise

■ Consumer research:

- Ask users what features that would like to see out of a fitness app

- Riley: could help out with survey design

- Want to make sure we are biasing the application to our own desires

- - - ■ Right size this:

    - Development lifecycle - poc, prototype, mvp

    - What does success look like for senior project

- September 22nd, 2023 (Team Meeting)

  - Discuss and work on Assignment #5

  - Events of meeting:

    - Discussed what everyone's roles should be

    - Finished the task list for the project

- October 1st, 2023

  - Discuss and work on Assignment #6

  - Events of meeting:

    - Discussed what everyone's milestones are for the project

    - Discussed what everyone's expected timeline is for the project

    - Discussed the effort that each task would take

    - Finished the milestones, timeline, and effort matrix for the project

- October 8th, 2023

  - Discuss and work on Assignment #7

  - Events of meeting:

    - Discussed what constraints would affect our project

    - Finished the project constraint essay

- October 19th, 2023

  - Discuss and work on Assignments #8 and #9

  - Events of meeting:

- ■ Discussed what to include on our PowerPoint slideshow

- ■ Discussed who would be presenting what

- ■ Finish the PowerPoint slideshow

- ■ Presented the slideshow in a video presentation

- ● October 26th, 2023

  - ○ Discuss and work on Assignment #10

  - ○ Events of meeting:

    - ■ Discussed what needs updating from previous assignments

    - ■ Gathered and presented the budget information for the project

    - ■ Gathered and presented the meeting notes of the project

    - ■ Updated the GitHub repository

- ● December 1st, 2023 (Kinetic Vision Meeting)

  - ○ Meeting with Kinetic Vision to have an advisor evaluation

  - ○ Events of meeting:

    - ■ Have advisor evaluation of the fall design report

    - ■ Gather suggestions to improve fall design report

Spring Semester

- ● January 20th, 2024

  - ○ Discuss and work on Assignment #1

  - ○ Events of meeting:

    - ■ Discussed what tests we want in the project

    - ■ Finished the test plan documentation

- February 9th, 2024

  - Discuss and work on Assignment #2

  - Events of meeting:

    - Discussed how we want the user to interact with the application

    - Finished the user documentation

- February 16th, 2024

  - Discuss and look over Assignment #3

  - Events of meeting:

    - Discussed the slideshow contents

    - Finished the slideshow

- February 19th, 2024

  - Discuss the current progress of the project

  - Events of meeting:

    - Checked the current progress according to our plan

    - Determined what elements of the projects needed additional resources

- February 26th, 2024

  - Discuss our additional research on AI models

  - Events of meeting:

    - Compared different AI models

    - Went over coding standards

    - Went over coding environment

- March 1st, 2024

- ○ Discuss and look over Assignment #4 and further discuss of coding standards and environment

  ○ Events of meeting:

    - ■ Discussed the poster contents

    - ■ Finished the poster

    - ■ Went over coding standards

    - ■ Went over coding environment

- March 18th, 2024

  - ○ Discuss the current progress of the project

  - ○ Events of meeting:

    - ■ Discussed about what everyone has done

    - ■ Discussed what everyone plans to do

    - ■ Ensured that the project was still on pace

- March 25th, 2024 (Kinetic Vision Meeting)

  - ○ Meeting with Kinetic Vision to discuss our progress

  - ○ Events of meeting:

    - ■ Discuss our current progress

    - ■ Perform a small demonstration of the application

    - ■ Gather information what we should prioritize

- April 7th, 2024

  - ○ Meeting to work on application

  - ○ Events of meeting:

    - ■ Discuss our current progress

- - ■ Clarification on what we wanted

- ● April 8th, 2024

    - ○ Meeting to prepare for the Expo

    - ○ Events of meeting:

        - ■ Determine everything that should be shown at Expo

        - ■ Prepare presentation material