

GAIN App

Design Exercise completed by Kevin Cloutier

Github

<https://github.com/theartwebreathe/GAIN-optym>

Packaged App (contains .exe)

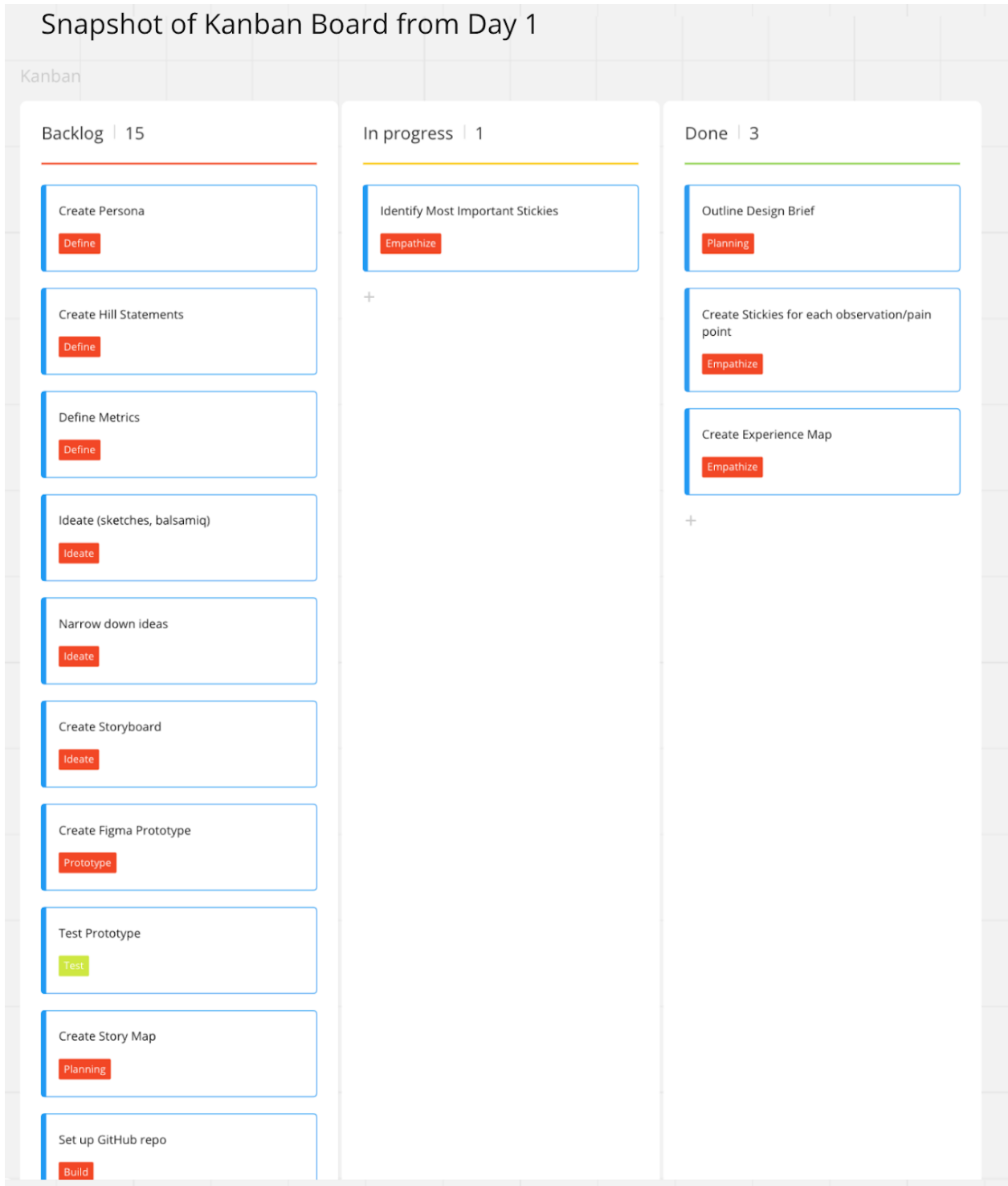
<https://github.com/theartwebreathe/GAIN-optym/releases/download/1.0/GainApp.zip>

Design Process

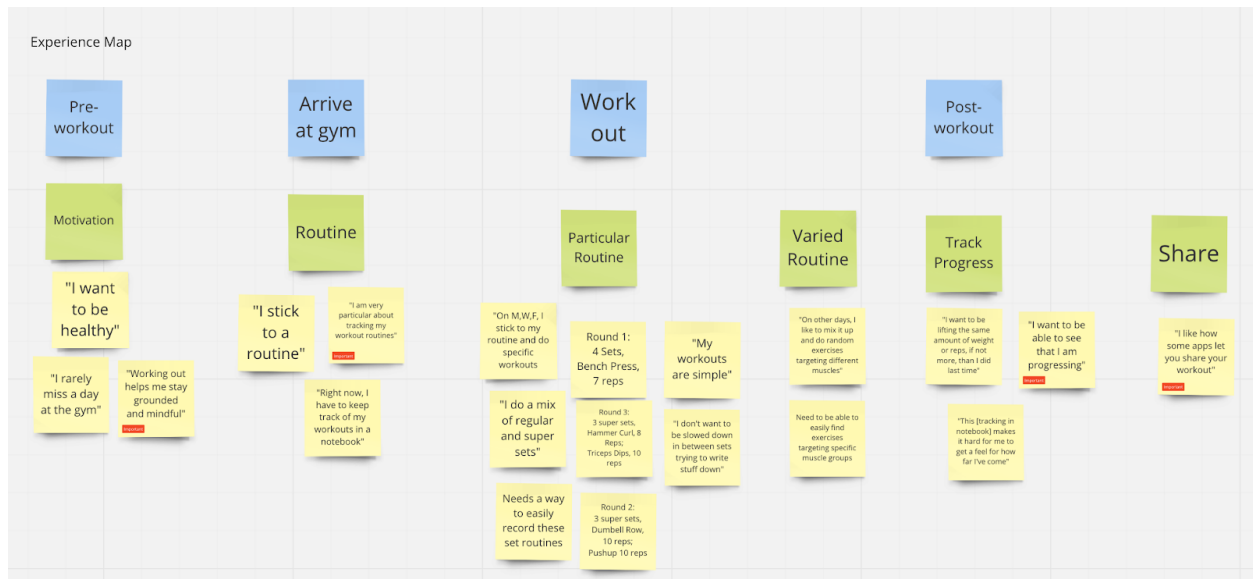
I utilized a tool called [Miro](#) to organize my thoughts as I went through the design process. My first step was to create a rough outline of my plan for designing and building the app:

Rough Plan	
1. Go through design brief, highlight/underline key points, make notes	
2. Empathize:	
a. Create stickys for each observation/pain point in the brief	
b. Create an Experience Map based on those observations	
c. Identify the most important stickies	
3. Define the problem	
a. Create persona (this is pretty much spelled out in the brief)	
b. Create "Hill Statements" (IBM Design Thinking method)	
i. Invert the pain points	
c. Define metrics (how will we know if we solve the user problem?)	
4. Ideate	
a. Quick sketches, Balsamiq LoFi mockups	
b. Narrow down to the best ideas	
c. Create a storyboard showing how Johnny would use the app	
5. Prototype	
a. Create a prototype in Figma (MedFi)	
6. Test the prototype (ideally recruit a few people to try it)	
a. If testing reveals problems or improvements to be made, iterate	
b. Use metrics - did we solve the problem?	
7. Create Story Map	
8. Build	
a. Set up GitHub repo	
b. In Visual Studio, create a new project	
c. Pull in MaterialInXAML library	
d. Set up simple MVVM	
e. Build based on prototype	
9. Test the XAML prototype	

Then, based on that outline, I set up a Kanban board so I could track my way through the process:



Next, I went through the design prompt document and underlined key words/phrases that spoke to the user's needs. I then used that information to build an Experience Map:

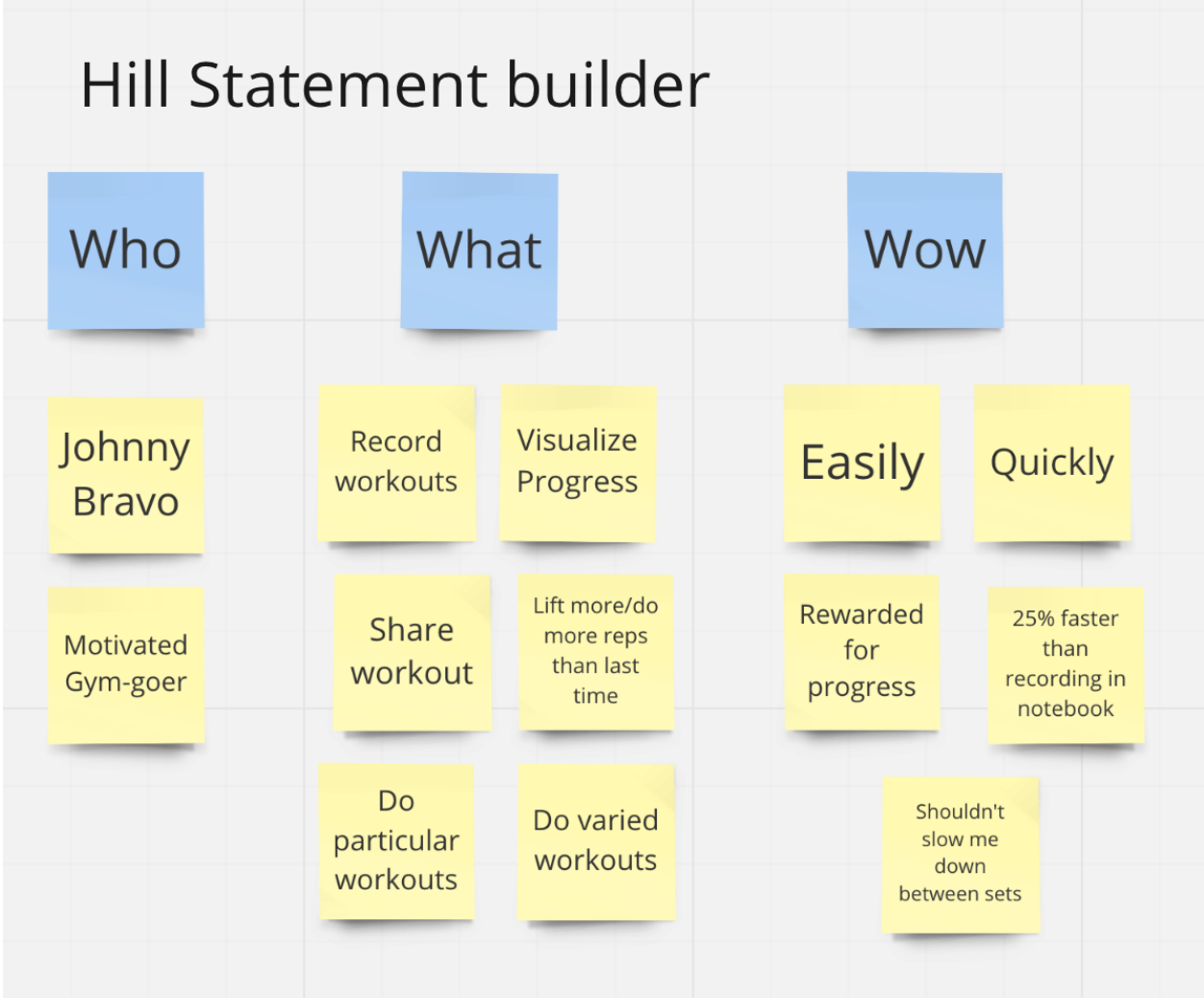


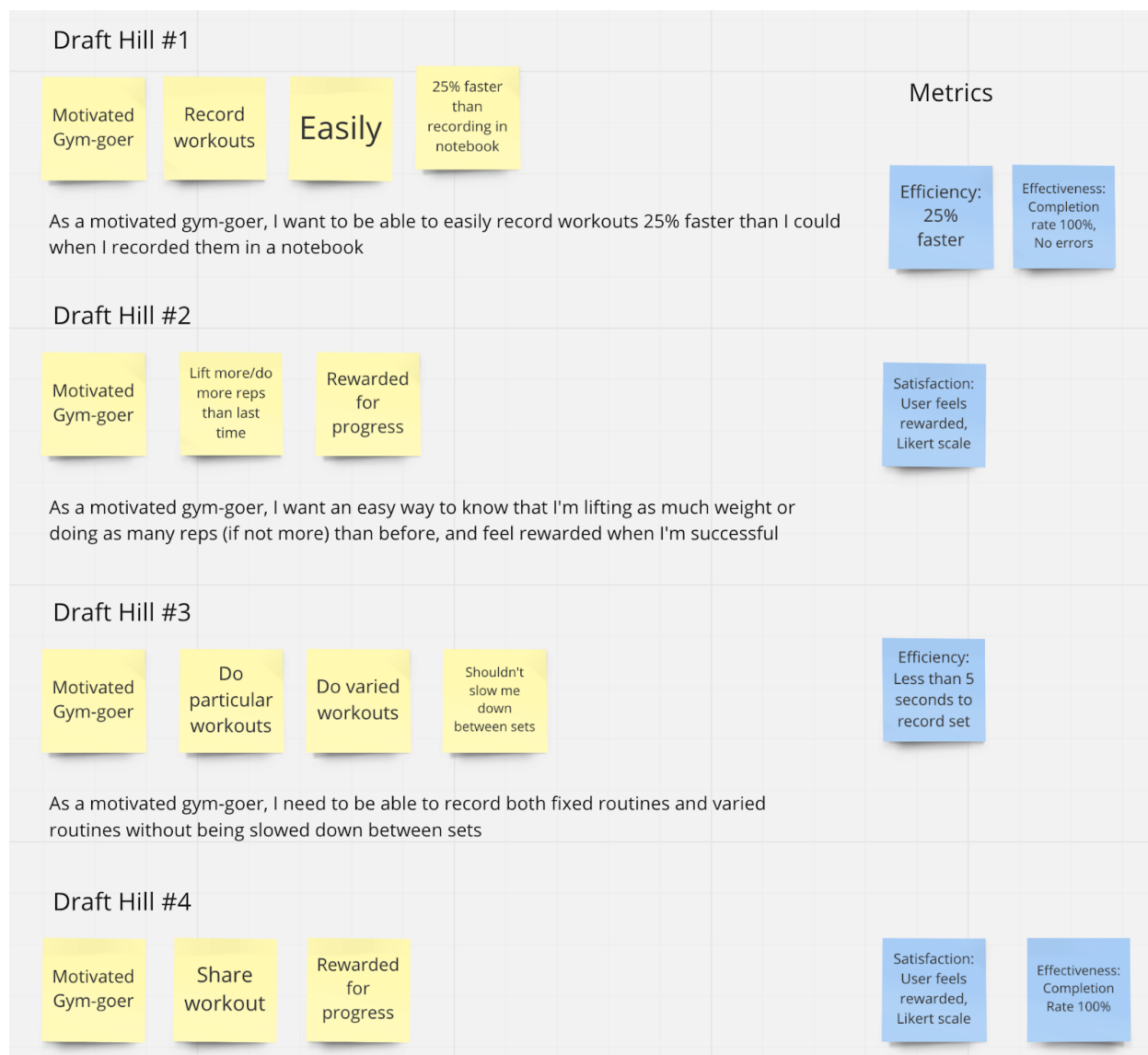
This map shows the user's journey and their thoughts, feelings, and pain points throughout that journey. I converted the information from the design prompt to quotes, and added a few of my own by extrapolating from what was there to help complete the map. I added red tags to the stickies I felt were the most important.

Next, I put together a persona based on the design prompt:



After that, I began creating some Hill Statements (see [IBM Design Thinking: Hill Statements](#)). Essentially, these are a specific form of Problem Statement that follows the format Who, What, and Wow.





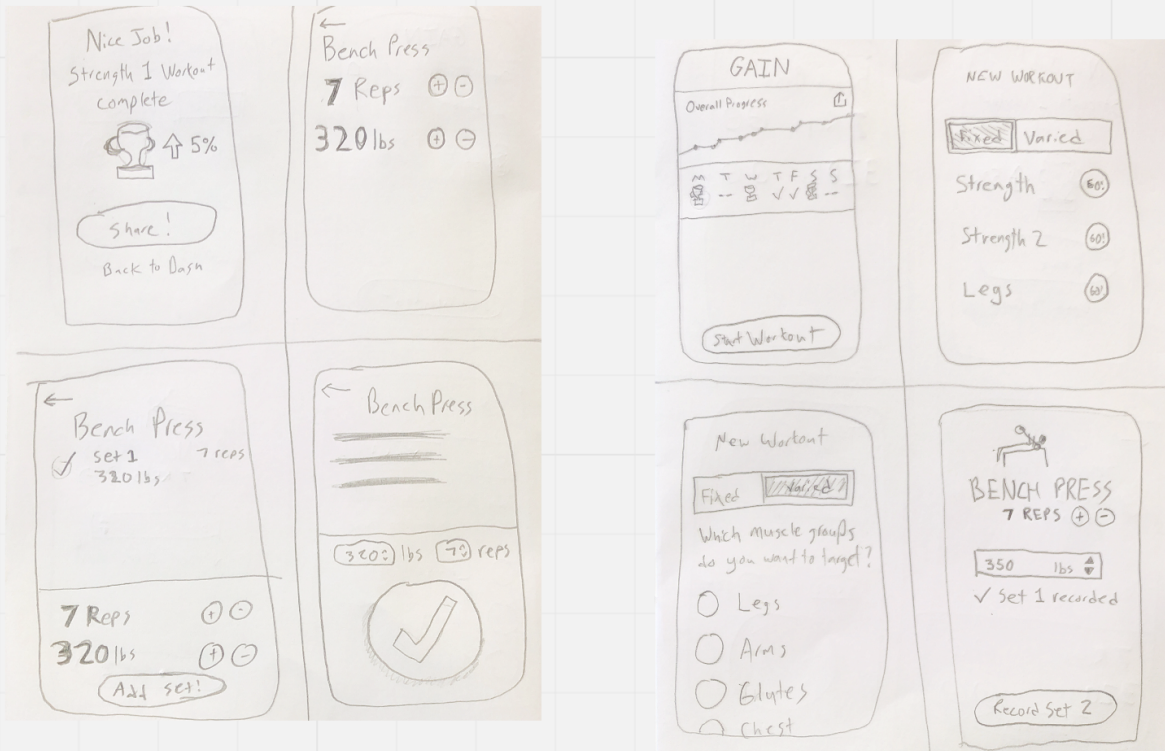
After coming up with the Draft Hill Statements, I came up with metrics for each of them, then combined them into a single problem statement:

Problem Statement (from combining hills)

As a motivated gym-goer, I want to be able to easily and quickly record routine and varied workouts, visualize and track my progress, and share my results on social media.

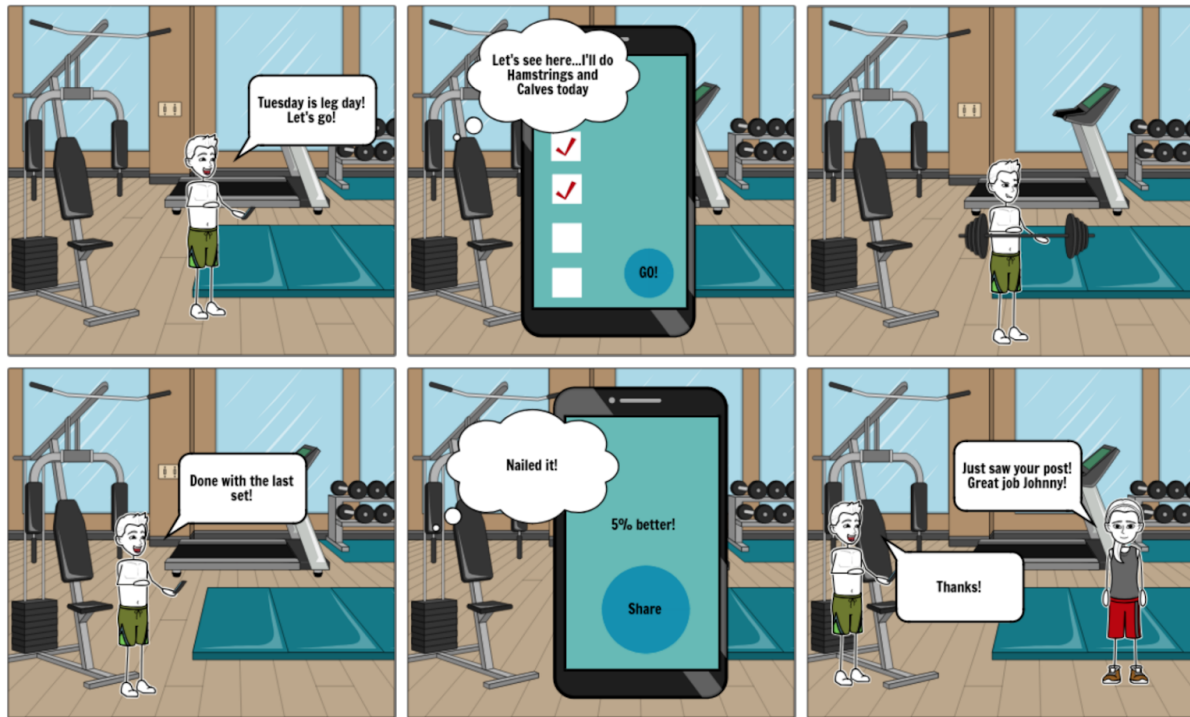
Next, I entered the ideation phase. I started by doing some very rough sketches:

Initial Sketches



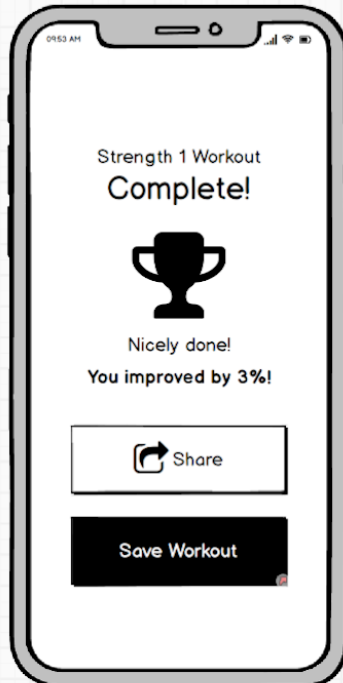
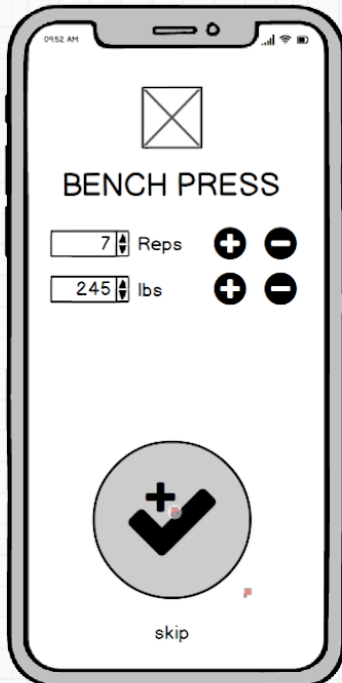
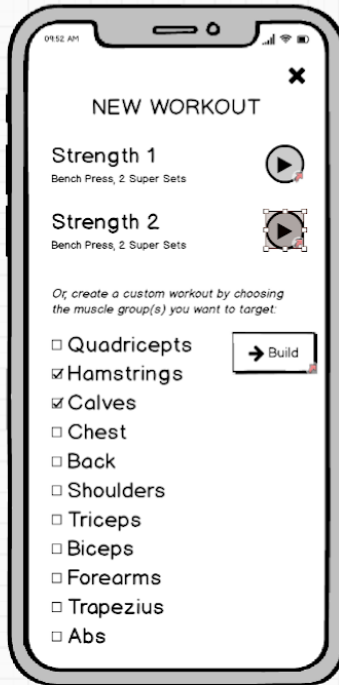
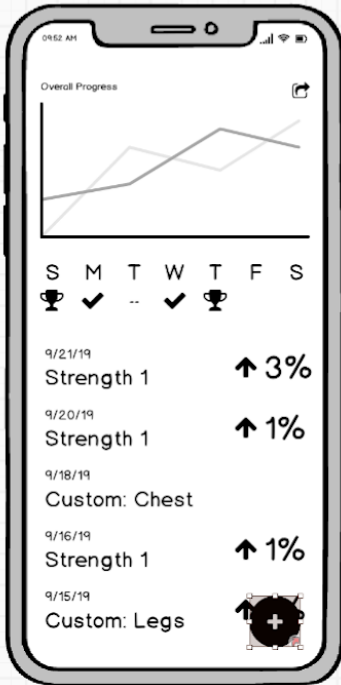
I then created a storyboard showing the user going through the process. (I did not spend a lot of time on this, so it's not very fleshed out):

Storyboard



From there I did some LoFi prototyping in Balsamiq:

LoFi prototype



Next, I wrote a script for a Usability Test to test the LoFi prototype:

Usability test script

You are an avid, motivated gym goer. You used to record your workouts in a notebook, but you are looking for an app that makes it easy for you to record your workouts, track your progress, and share the results.

Keep in mind - YOU are not being tested, the prototype is being tested. Feel free to voice your thought process as you navigate the prototype.

Any questions?

1. Observe the app home screen.
 - a. What do you like/dislike? Anything confusing? Anything missing?
 - b. On a scale of 1 - 5, how do you feel about this screen
 - i. 1 (strongly dislike), 3 (neutral), 5 (very much like)
 - c. How would you share your overall progress to social media?
2. Ok, now you want to start a workout. How would you do this?
3. Now you want to do one of your routine workouts. Choose a workout
 - a. Observe this screen
 - b. What do you like/dislike? Anything confusing? Anything missing?
 - c. On a scale of 1 - 5, how do you feel about this screen
 - i. 1 (strongly dislike), 3 (neutral), 5 (very much like)
 - d. How would you increase the number of reps
4. Ok, you've just completed your first set. You have 2 more to go. What do you do next?
5. Continue marking that you're completed the sets until the round is done
6. Observe the "Completed" screen
 - a. What do you like/dislike? Anything confusing? Anything missing?
 - b. On a scale of 1 - 5, how do you feel about this screen
 - i. 1 (strongly dislike), 3 (neutral), 5 (very much like)
7. Ok, how would you move on to the next round?
8. Complete the sets like you did before
9. Ok you've completed all of the rounds. What do you do next?
10. Now we're on the "Workout Completed" screen.
 - a. What do you like/dislike? Anything confusing? Anything missing?
 - b. On a scale of 1 - 5, how do you feel about this screen
 - i. 1 (strongly dislike), 3 (neutral), 5 (very much like)
11. How would you rate this overall workflow on a scale of 1 - 5
 - a. 1 (strongly dislike), 3 (neutral), 5 (very much like)
12. Anything you would add?
13. Would you use this app?

I then recruited a not-so-representative user (my wife) to go through the test:

<https://www.youtube.com/watch?v=YzyN3fbzMO>

Test results		
1. App home screen		
a. "I like that it looks very clean, organized, and simple"		
b. 4 on Likert scale		
2. Found the button to start workout right away		
3. Found the start routine button without error		
4. Understood how to increase reps/weight		
5. Got confused when asked about how to move on to the next set. May have been due to my wording (and due to the fact that she isn't really a representative user)		
6. After clarification, she found the button		
7. Round completion screen		
a. "I like how simple it looks"		
b. "Tells me what i need to know"		
c. 5 on Likert scale		
8. Found Finish Workout button		
9. Workout completed screen		
a. 5 on Likert scale		
10. Found Save workout		
11. Overall impression		
a. She would use this app...if she worked out!		

If I had used a more representative user, I probably would have gotten more feedback/discovered more problems with the design. The biggest thing I learned was that my button for recording a set was not intuitive, despite its large size.

Next I moved on to Figma to do some higher fidelity mockups:

<https://www.figma.com/file/w0AjV1839AOUdBAXiwwIY5/GAIN-App?node-id=0%3A1>

<https://www.figma.com/proto/w0AjV1839AOUdBAXiwwIY5/GAIN-App?node-id=1%3A2&viewport=87%2C314%2C0.25147300958633423&scaling=scale-down>

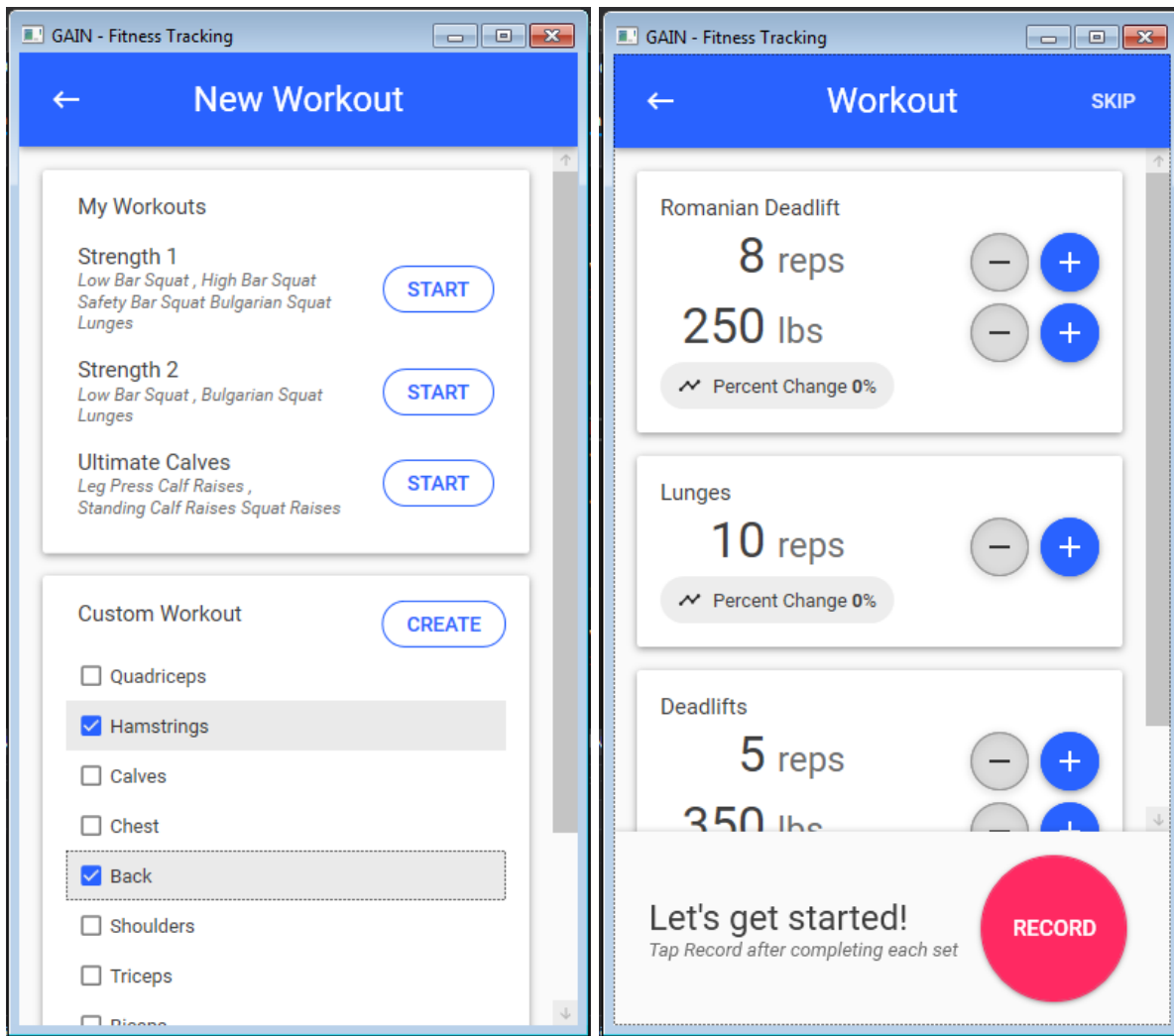
After Figma, I created a Story Map, which shows a rough plan for how user stories could be created, and which features are MVP vs just nice to have.



After that, it was finally time to write some code. After setting up the Github repo, I created a new WPF project in Visual Studio.

The commits page on the Github repo gives a good picture of my steps in coding the app: <https://github.com/theartwebreathe/GAIN-optym/commits/master>

As I built the app in WPF, I made some improvements to the design based on how it felt to actually see and use the app. For instance, I added title bars in a few of the views, and made the Record Set button much smaller to better accommodate supersets.



That about wraps it up! I enjoyed the exercise as it was a good way to really go through the whole Design Thinking process from start to finish. Additionally, I became much more familiar with the MaterialDesignInXAML library, and really brushed up on my overall WPF/XAML/C# abilities.