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Milestone 3

**Prototype link:**

Github: <https://github.com/cudilara/FantasyRun/tree/master>

Demo: <https://csci3002fantasyrun.weebly.com/demo.html>

**Design iteration - Improvements based on our initial user studies:**

- Wording for wearable - made one screen; improved wording; added a privacy note.
- Changed color scheme.
- Changed icons and put launching icon.
- Removing confusing image from scenario page.
- Make the interface less blocky - rearranged text from the middle to the left, according to the reading heat map.
- On My Info number keyboard vs. alphabet.
- On My Info explanation for how biometrics will be used.
- Map is moving.
- Added token system.

**User studies:**

**Task 1:** Choose Lord of the Rings Scenario and finish the run. Assume the app is used for running, but for this testing we will use a short walk.

*Reason:* We chose this task, because we need to see how users will use our app for running.

**Task 2:** Connect wearable wristband tracker to your device. Then choose Lord of the Rings run and use the app to do your run.

*Reason:* This task was chosen to see if the connection screen gives short and easy directions. We also want to see the reaction of people to our privacy information. Another reason for this task is to see how long it takes people to connect their wearable devices.

**Task 3:** Enter biometric data into the app.

*Reason:* This task allows us to see if users can easily put their biometric data and if any of our wording or directions are confusing to users.

**Questions for users once tasks are finished:**

- 1) What did you find confusing in task#?
- 2) What did you like about the app?
- 3) What did you not like about the app?
- 4) Did anything surprise you in this app? What? How was it surprising?
- 5) How do you feel about colors?
- 6) Did you understand where you are and how to get to the next place?
- 7) Was text large enough for you to read?

- 8) Do you have any concerns or questions about the privacy text on the Wearable option?  
 9) Is there any other feedback you could share?

#	Age	Gender	Academic Background	Setting	Observations	What did not like	What liked
1	37	M	Ms in CS	playground	In wearable did not read text, just pressed button; does not care about privacy. Really enjoyed running and imagining sounds.	On MyInfo cannot scroll down while typing answers, when submit, not sure if answers were saved - need better feedback. Grey-white button colors are clashing. At summary there is no follow up: "What am I supposed to do here?"	Great idea, would be fun to run with such an app.
2	10	M	Elementary School	playground	Confused at summary, bluetooth, and myinfo next steps. Did not associate MyInfo with Biometric data.	Cannot scroll in MyInfo when typing answers. Not sure how to translate height in feet to inches.	Would like to run around and see himself on the map with the monster chasing him.
3	36	M	MBA	street	Connected button on wearable was confusing - does it mean that my wearable is automatically connected? Submit on MyInfo doesn't do anything and it moves when pressed.	Start Run button means go to the running screen or actually starting run? Need more info there. I don't know how to attach wearable, need more info. How do I request for info to be deleted?	Like colors, like the calculations. Like the map!
4	33	F	High school	Martial arts studio	Connect fitbit completely threw off - have no idea how to do this. Scrolling on MyInfo confusing. Inches vs. feet threw off.	"I really need directions on how to connect the wearable. Would not google this." "I need to put my height in feet, not inches." Submit on MyInfo needs to tell a little more, like saved your info, now go for a run.	Colors are fine - not really caring about colors. Liked the privacy message, but don't care about privacy anyway. Like the idea a lot, but still would not run even with such an app.
5	41	F	Some college	Martial arts studio	Run screen was confusing - "what do I do?" Wearable screen confusing.	MyInfo needs to be in feet, not inches. Submit on MyInfo does not say what to do next.	Love heart rate statistics: "This is the only thing I would care about." Colors are fine, don't really care about that. Privacy message is nice to have, but don't care about privacy.
6	61	F	PhD in Literature	Living room	Last page of run was confusing as to what to do next. Wearable set up - assumed that button means that it will connect automatically. MyInfo does not scroll. Wrote height in feet and inches. Thought that MyInfo submit button did not work.	Need the app to tell exactly how to set up the wearable device. MyInfo submit button needs to give more feedback, saying that all the data were received correctly.	Heart rate would be very useful to know, especially during the run itself, so that person can adjust their running rate.

7	49	F	Master's degree	Home	When the wearable screen came up, thought that the wearable was already connected.	Make wearable screen more straightforward. After pausing run, button should be resume, not restart.	Like the idea of multiple fantasy themes a lot.
8	54	M	Master's degree	Home	Not sure what was happening on the running screen. Tried pausing the run, and the gif did not stop playing.	Most people know their height in feet and inches, not just inches. The app shouldn't require the user to do math to convert.	Good idea, would use it to start running more.
9	20	M	Some college	Kitchen	Confused at connecting the fitbit, not sure what to do next.	When you click on a tab, the icon for it greys out and it's difficult to see what it was. Come up with some other color to indicate what tab the user is currently on.	Liked the idea of audio feedback so you wouldn't need to keep looking at a wearable.
10	21	F	Some college	Kitchen	Got confused on what to do after submitting biometric data on MyInfo tab. "Did it go through or what?"	Not clear what to do next after you press submit on the MyInfo tab.	Liked the heart rate calculations, would be interested in learning more about them.

### User feedback themes:

#### 1) What did they like/not like about the prototype?

In general, people liked the idea of the app and its flow. The most problematic areas are last screens of each menu option: we consistently got a question "now what do I do?"

Most people did not care about colors or the aesthetic appearance. No one truly liked app's appearance.

Connecting the wearable device was the hardest task of this user study. Those people, who do not own a wearable tracker, have no idea even where to start with the process of connecting it. They expected that our app would walk them through that process step-by-step.

#### 2) What worked well? Why?

Users in this study really liked the idea of encouragement through their favorite stories. Some of them got really excited and started suggestions themes for such an app. They did not seem to be interested in a token system and said that the metrics in the summary page are more important to them.

#### 3) What did not work well? Why?

Generally, the flow worked well, except for the final screens. Users were really confused about what are they supposed to do at the end of each task. Connecting the wearable device did not work for most users.

#### 4) What were some of the limitations of your prototype?

This prototype did not have sounds and we asked the users to imagine the concept of various sounds associated with their speed or heart rate. We also did not implement speed or heart rate functions, so those users who actually ran in the study, imagined this functionality. The prototype does not have a finished aesthetic look: we put in colors and a general placement of items, but for the real product all of these items will need to be stylized and polished.

#### 5) What were some of the limitations of your user studies?

Most users knew testers, except for 4 people, who were strangers. Most people were excited about technology in general and apps like ours - they really wanted to encourage us and asked if we could actually make such a product. Being used at a prototype level, our users could not observe how the app works at different speeds or heart rates, neither could they hear sounds.

### **What we learnt:**

In general, this study was very useful, as we can clearly see what works and does not work for users. For example, on our previous iteration, some users said that the final screens of each flow were too wordy: they did not need to be told to go to the Run screen, as it was evident from the context. However, when we removed this direction, all users were confused about what to do after they are done setting the wearable or filling out their biometric information. All of them said that they needed some sentence telling them what to do next.

We also learnt what wording works or does not work for buttons. For example, "Connected" was not interpreted as a button to press, once someone connects their wearable. On the other hand "End Run" was perfect, as people did not have to think at all about what it meant.

Another aspect we learnt is that users don't care too much about tokens, colors, or privacy. They want something easy to get their run metrics, such as calories burnt and heart rate.

### **Individual contributions:**

- Garrett William Sippel: worked on the milestone document, programmed the back end of the app and some fragments, conducted user studies remotely together with Dilara, analyzed user feedback.
- Suchita Lulla: worked on the milestone document, created website, programmed the front end of the app and some fragments, conducted user studies, analyzed user feedback.
- Dilara Madinger: worked on the milestone document, programmed the back and front end of the app and some fragments, conducted user studies together with Garrett via Google Drive, analyzed user feedback.

### **Resources:**

<https://icons8.com>

<https://medium.com/@rjmarvin1/the-hobbit-lord-of-the-rings-marathon-to-end-all-marathons-a-binge-watching-guide-c44f61239c4>

<http://www.newhydeparkpodiatry.com/map-directions.php>

[https://www.elfdict.com/phrases/1-sindarin/56-how\\_to\\_thank\\_in\\_sindarin#!4546](https://www.elfdict.com/phrases/1-sindarin/56-how_to_thank_in_sindarin#!4546)

<http://www.themakeupgallery.info/fantasy/elf/rings/ringscb.htm>

<http://www.sunwaythegoodrun.com>