

Scientist Meeting and Interview

Team Name: Sheep Wormers

Scientists Names: Janae Foss

<https://cs4760.csl.mtu.edu/2024/assignments/cs4760-assignments/project/project-assignment-3-scientist-pre-interview-notes-1/>

Date: 1/16/2024

Time: 5 pm EST

Duration: 30 minutes

Location: Zoom

Attendees

- Ryan - Product Owner
- Brendan Fuhrman
- Leiya Rybicki
- Sidney Gillig
- Jacob Smith
- Ben Fosdick
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Discussions

Pre-Planned questions:

1. Please tell us about your app idea?
 - a. Look if there is an animal in the system but if there isn't allow the user to add that new ID
 - b. Be able to record FAMACHA score and fecal matter score (if applicable)
 - c. Be able to put how much the sheep weighs for medical dosage
 - d. Be able to see previous records and button to add new records

- e. Be able to record what the decision is when checking the sheep
2. Who are the users of your app?
- a. The primary users of the app are sheep farmers and their helping hands.
Thus, the app may be installed on each of their phones and those working that day will be using their device.
3. When or where will the app be used?
- a. The app will be used during regular checks performed “in the field.”
Checks are done while funneling the sheep through the working chute where they are individually inspected and may be treated. Therefore the app must be easily used in this environment.
 - b. The first point of interaction is entering the sheep ear tag # by hand.
 - i. RFID is possible by attaching a USB keyboard-emulation reader
 - ii. A future project could support the phone radio hardware directly
4. What information or content does the app show the user?
- a. While in the chute, the app should display the information of the previous entry for that particular sheep or display that there was no previous entry.
 - i. Previous entries should be cached before going offline
 - ii. "no previous entry" should be distinguished from "no cache found"
 - b. Nice to have: database export suitable for industry-wide statistical analysis
 - i. Irrelevant or personalized columns must be excluded
 - c. Units: English units (By default), switch to metric (optional feature)
 - d. Could display scoring reference card (potential copyright violation)
 - i. Users would need to provide their own photos

- ii. Beware of device color calibration issues
 - iii. A future project might use computer vision instead of the card
- 5. Do you have any documents such as flyers, forms, or spreadsheets that you can share with us?
 - a. We were provided with an Excel document with a basic overview of what she is looking for. This can be found [here](#).
- 6. What data should the app collect?
 - a. sheep
 - i. string identifier (required)
 - ii. name
 - iii. date of birth (required)
 - iv. sex (required)
 - v. breed name
 - vi. date of death
 - vii. cause of death
 - b. exam
 - i. string identifier (required from sheep)
 - ii. date (required)
 - iii. sheep weight
 - iv. FAMACHA score (required)
 - v. fecal egg count
 - vi. treatment id (optional from treatment)
 - vii. comments

- c. treatment
 - i. id (required)
 - ii. name (required)
 - d. pregnancy (may be out of scope)
 - i. ewe string identifier (required from sheep)
 - ii. ram string identifier (required from sheep)
 - iii. date exposed
 - iv. date removed
 - v. date bred
 - e. Apart from this, Janae has experience with EPIC and their medical records system which allows for records to be kept of practically all that one could possibly want.
7. What devices would you like the app to be compatible with?
- a. smartphone form factor, possibly mounted tablet
8. Have you tried a different app or method for tracking this data? What aspects did you particularly like or dislike?
- a. No other apps have been used. The only other method of data collection has been a simple spreadsheet keeping track of a small amount of data regarding what was administered to which sheep. If there was nothing administered, nothing was recorded.
9. What can we assume the users will know/not know regarding the app?
- a. Assume they know the details of worming. The app does not need to provide any additional information or on-the-job training.
10. How would you like your app styled?
- a. The most important thing is ease of use. The app needs to be user friendly such that it can be used while out working with the sheep. Also, many farmers are more elderly so keeping things big and minimal is valuable.

Additional Questions not planned/topics of discussion:

1. Janae provided these links after the meeting:
 - a. <https://extension.umd.edu/resource/when-should-i-deworm-my-sheepgoats/>
 - b. <https://www.sheep101.info/201/parasite.html>
 - c. <https://www.wormx.info/>
 - d. If you want to learn more about sheep in general:
 - i. <https://www.sheep101.info/index.html>