

Team 6: Evan Yang, Eura Shin, Matthew Phelan, Trent Woods
 CS 499-001 Fall 2019
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Word Count:

Evan: 0

Eura: 0

Matthew: 269

Trent: 444

(Note: We did not include words for user stories/acceptance criteria.)

1. Size Estimate:

Product Backlog

User Story	Acceptance Criteria	Type	Status	Story Points
As a death scene investigator, I need to be able to work on the investigation form offline and sync when online so that I can gather data wherever I need it, regardless of internet connection.	<ul style="list-style-type: none"> - The application is fully functional when there is no connection is available. - User should be able to view and work with current death scene form and have the data cached on the device until a connection is available. - When a connection is available, the cached data is imported into the database. 	Requirement	Not Started	2
As a death scene investigator, I need autocomplete on the app so that I can quickly fill out the form without having to type long toxicology terms.	<ul style="list-style-type: none"> - The application can recognize common toxicology terms as the user types and displays a list of closely matching terms for the user to select to fill out a specific field. - This feature will be implemented for the fields under the Toxicology section of the form. 	Improvement	Started	3
As a death scene investigator, I need three levels of login security clearance so that access to sensitive data can be limited to cleared individuals.	<ul style="list-style-type: none"> - The application should show or hide certain information based on the security clearance of the individual. - The application should also restrict edit permissions for all forms depending on whether a third party or a death scene investigator is accessing the data. - Death scene investigators should be allowed to access, edit, and view forms that they have created, whereas a third party such as a district attorney can only view forms that they have requested access to. 	Requirement	Not Started	5

As a death scene investigator, I need the Android and iPhone versions of the application to be identical so that there are no discrepancies in the collection of legal evidence.	<ul style="list-style-type: none"> - The functionality and aesthetics of the application are identical on both versions. - Both applications should use the same method and format when interfacing with the backend server. 	Requirement	Not Started	5
As a death scene investigator, I need to have access to previous versions of the forms that I have submitted in case a mistake is made in its collection or revision.	<ul style="list-style-type: none"> - Forms that have been submitted can be edited and resubmitted, if need be. - The user should only be able to access and edit forms that they have submitted in the past. - The backend database will update the data accordingly. 	Requirement	Started	3
As a death scene investigator, I need to be able to upload pictures of the death scene and attach them to the corresponding form that I will be filling out for the death scene.	<ul style="list-style-type: none"> - Both versions of the app (iOS and Android) will be able to successfully access the camera of the device. - The camera functionality of the application should be able to capture images from the death scene and attach images to the form. - The application should be able to upload the images corresponding to a specific form to the database. 	Improvement	Not Started	2
As a death scene investigator, I need to ensure that all communication and connections between the mobile application and the database server is secure and that all data being transmitted is encrypted.	<ul style="list-style-type: none"> - Industry-leading security standards will be implemented to ensure all sensitive data is protected. Security is built into the application rather than being an afterthought. - All data transmitted between the mobile application and the database should be encrypted. This can be done with a mutual authentication scheme, where SSL certificates are exchanged between the application and the database server to ensure that the application is only interfacing with a trusted server (prevents man in the middle attacks). 	Requirement	Started	6
As a death scene investigator, I need the application to be easily accessible and usable on different devices of the same platform (iPhones and iPads on iOS, for example).	<ul style="list-style-type: none"> - The format and functionality of the app will be the same regardless of screen size, device specs, etc. - The application should be able to scale to the appropriate screen size and ensure that all sections and elements of the death scene investigation form are included and are clearly visible on all devices. 	Improvement	Not Started	3

2. Risk List:

1. Some functions and UI elements in the iOS app may be too difficult to recreate in the Android app.

Mitigation: Ensure each function and UI element in the iOS app can be recreated in Android before we begin developing the Android app. This will prevent an onslaught of incompatibility issues once we finish the Android app. We will do our best to have at least a baseline understanding of Android development before we begin our work on the app. This will allow us to gain more insight to what is and is not possible before we get started.

2. We could experience delays in the publishing of the iOS app in the App store. We have heard that it sometimes takes awhile to publish, and the process sometimes isn't that user friendly.

Mitigation: We will research the steps necessary in order to publish in the App store. We will be proactive and ensure that as soon as we're able to publish, we begin the process. If necessary, we can be in direct contact with Apple in ensuring that our app meets their standards.

3. The Android app itself will take too long to recreate and won't be finished by the end of the semester.

Mitigation: We will plan our time well and ensure that if we're finished with the development of the iOS app and are simply waiting for it to be published, we begin work on the Android app. We will split the tasks up logically to ensure we are making good use of all 4 group member's time.

4. The encryption of data and other security features will be difficult to implement.

Mitigation: Security in this application is paramount. We might have to research libraries in order to help us with encryption, secure transmission of data, etc. It is important that we get it right before it gets published and starts being used in practice. We will take the necessary time required, and contact the necessary people in order to ensure we're developing a responsible and secure application.

5. Our timeline estimations for milestones are inaccurate and we get behind schedule.

Mitigation: We have weekly meetings where we discuss our current progress and provide feedback on what we have accomplished. This way, if we notice we are behind schedule, we can increase our output to make up for any delays.

6. Our number of requirements steadily increases until it is not feasible to complete all within the semester.

Mitigation: We held a lengthy first team meeting to go over questions for our customer and made sure we asked everything we could in our first meeting with her. We will regularly interact with Dr. Brown to avoid many new requirements appearing at once. Some new requirements will likely appear, but we have the most important ones in writing already.

3. Schedule:

- We are implementing a shared Google Drive to use as a hub for all team documents. This also comes with a shared Google calendar that we'll use in order to communicate deadlines and other important dates relevant to our project. These dates and deadlines will be viewable by everybody in the team. A rough outline of our calendar is as follows:
 - 11 Oct - Back-end database is finished. Communication between the app and server is beginning to happen. Autocomplete and other functionality improvements have been implemented on the front end
 - 18 Oct - Testing of the iOS app has been implemented. Communication between the app and server is safe and secure. We begin to start the process of publishing to the App store.
 - 25 Oct - Work begins on the Android application. We discuss how we want to split up the tasks.
 - 8 Nov - General front end interface of the Android application is complete.
 - 29 Nov - Connection between the database and application is safe and secure. Testing is complete. We begin the process of publishing to the Android app store.
- This schedule will also include the dates of important team assignments we must submit.
- The dates are obviously subject to change. This schedule is likely a best-case scenario.

4. Github

- Link to developer blog: <https://github.com/evanfyang/death-scene-investigation/wiki>