

After Action Review Report

Humane Transport

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Team Members:

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A summary of your project or event

Canadian livestock transporters are required to follow rules and regulations specified by the Canadian Food Inspection Agency (CFIA) before, during, and after animal transport. The current process requires paper manifests to be created and maintained by transporters to ensure that all animals and their data are collected for business, market, and tracing purposes; it is not well suited to transporters who may not have access to materials while on the road. Humane Transport is a mobile application which provides transporters with a paper-free way to collect and provide all CFIA required data while meeting the requirements of the Health of Animals Regulations Part XII, Humane transport of animals (sections 136-155), and providing access to interpretive guidance documentation to assist understanding.

What went well and why?

Successes.

Meetings with stakeholders (members of the CFIA) really helped this project to be successful, in particular we received information about how the current process was painful, we learned the requirements of the application to fix the problem(s); we learned of and were able to use the CFIA's information site which described animal transportation, the process, rules, and regulations.

The moment we chose Google services as our framework, it set us up for total success. Google's Firestore and Flutter are very well documented and accessible, especially compared with frameworks like Kotlin Multiplatform Mobile and similar platforms that would have had a longer learning curve and less success rate in production.

How we managed this project with Agile Scrum went really well especially with how well the team members get along with one another and evolved to fill out their roles in the team. Weekly Scrum meetings helped us stay on track and identify pain points that needed more attention on an almost weekly basis. We, as a team evolved to become passionate about the project, giving us a collective goal to work towards.

Our choice to take time in the beginning stages of the project to experiment with the framework and expected tasks really helped us to have a clearer idea of the production code in the end.

How to ensure success in the future.

To ensure success, well structured planning is required. As a team we agreed we should spend the time to design and experiment with what we wanted to do before programming anything. The earlier we start coding, it becomes more likely that changes will need to happen and that will slow us down. This mindset really made us successful, not just this project but in other ones too.

The team should participate in all Scrum ceremonies: including the creation of work tasks. It's important for every team member to have experience with creating individual volumes of work so that they are able to make good estimates for themselves and for others.

What can be improved and how?

What can be improved.

Unfortunately due to worldwide circumstances, user testing with real animal transporters was consistently delayed and ultimately never occurred during this project. The user testing is invaluable to this project and should have occurred, even with a small group of transporters. We were further limited by not having any sort of immediate family or friends who were transporters that we could have contacted for testing and feedback purposes.

The application has a respectable start on unit and integration tests. We need more tests for asynchronous behaviour and system (or app) experiences, such as when internet connection becomes unavailable. Though our main programming language and framework are single threaded, more work can be done for application error handling in asynchronous cases.

Recommendations.

Future developers of this application should make it their first priority to test the application as-is with a small team of transporters. This will guide how the next round of development should go and reduce bias towards a particular experience or feature.

The application could be evolved further to store images of compromised animals for the contingency plan. Even further evolution would be the recording of video and audio instead of a written form, using digital signatures and modification prevention.

In the future we should add a digital certificate of submission (proof) from the database for when animal transport records are submitted as complete, so that no argument can be made whether or not the record was completed by a certain time.

Our automated application system tests should be implemented by future developers. The system tests could be evolved more before implementation using feedback from user testing with transporters.