Oregon State University
College of Engineering

CS Capstone Final Progress Report

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BLAMO

Prepared for

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Abstract

This document is an encapsulation of the entire fall term of the senior project capstone class. It highlights the initial problem presented to the capstone team and our approach to meticulously deliver an appropriate solution.Furthermore, it illustrates where we currently are after the first semester of work is done, where our current projections are heading into the new year, and first iteration of design work pertaining to our application. Concluding this document is an internal retrospective of all aspects of our project development.Each major assignment represents a quarter of the term. Our work used these assignments as the backbone of our reflection on the development cycle.

Contents

1 Goals and Purposes

The purpose of our project is to design, produce, and hand-off an application that allows our client and his team to log information on boreholes. This application suits the purpose of maintaining data integrity and automating some of the processes that Matt and his team must go through when logging borehole data. Our goal is to devise an application that makes the borehole logging process simple and easy, while providing an interface that is coherent, concise, and reliable. The BLAMO: Borehole Logging Application will be a series of forums and text entry fields allowing users to fill out as they would by hand in the field. Typically, a user would need to take those hand written records and manually input the content into proprietary software in order to get the desired output. With our application, the user will have an immediate option to export the completed document as a PDF or CSV that is identical to the already in use proprietary software. Lastly, the application will be interfaced with the associate graduate students work to pipeline the completed data appropriately.

2 Current Standing

Currently, the project is in the design phase. We have developed a few prototypes to emulate how the application will look on mobile devices such as phones and tablets. Upon feed back from the client we will further refine the design of the application. There have been some complications as to which platform the development will take place on (weather it be a tablet, or smartphone) and the version of android we develop for will vary the style of the application. Currently, we have prototypes implemented for both platforms, and plans include building our application with both platforms in mind. We have attached the prototypes below to give an overview of what we have visualized the application looking like.

At the end of this term we will have our preliminary design choices laid out given our mock ups and continued discussions and iterations of the design. Through continued meetings we have come to the agreement and decisions on several different methods we will be using in order to achieve all project deliverables. With this in mind, our team has agreed to continue work on our project over winter break. This will include organizing all of our project documentation into our github repository, creating tasks on our Kanban board, and continuously iterating through our design choices while creating a starting foundation for our application. These decisions will be reviewed by team members thoroughly to adhere to requirements and main usability principles we have outlined previously.

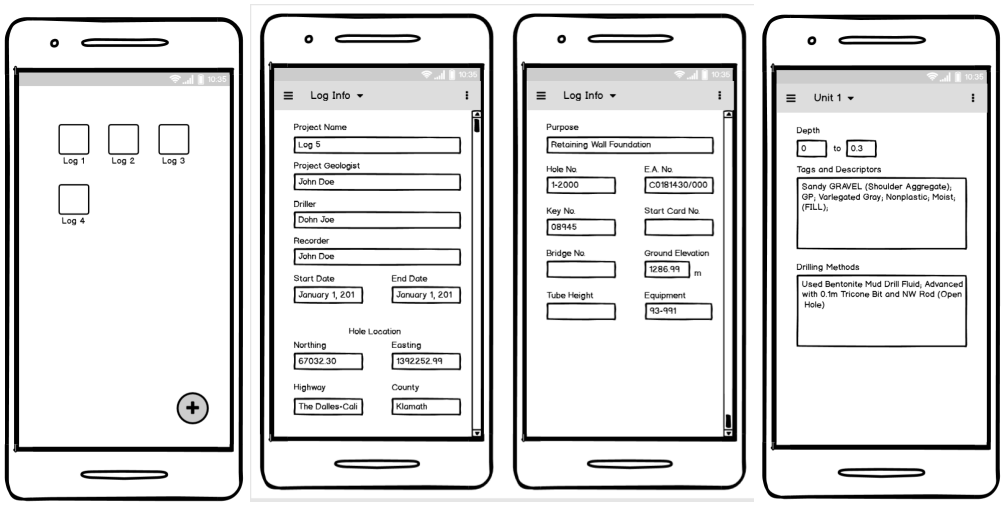

Fig. 1. Mobile Smart Phone Prototypes Showing the home screen, and many different frames of the document creation process. Made by James Trotter

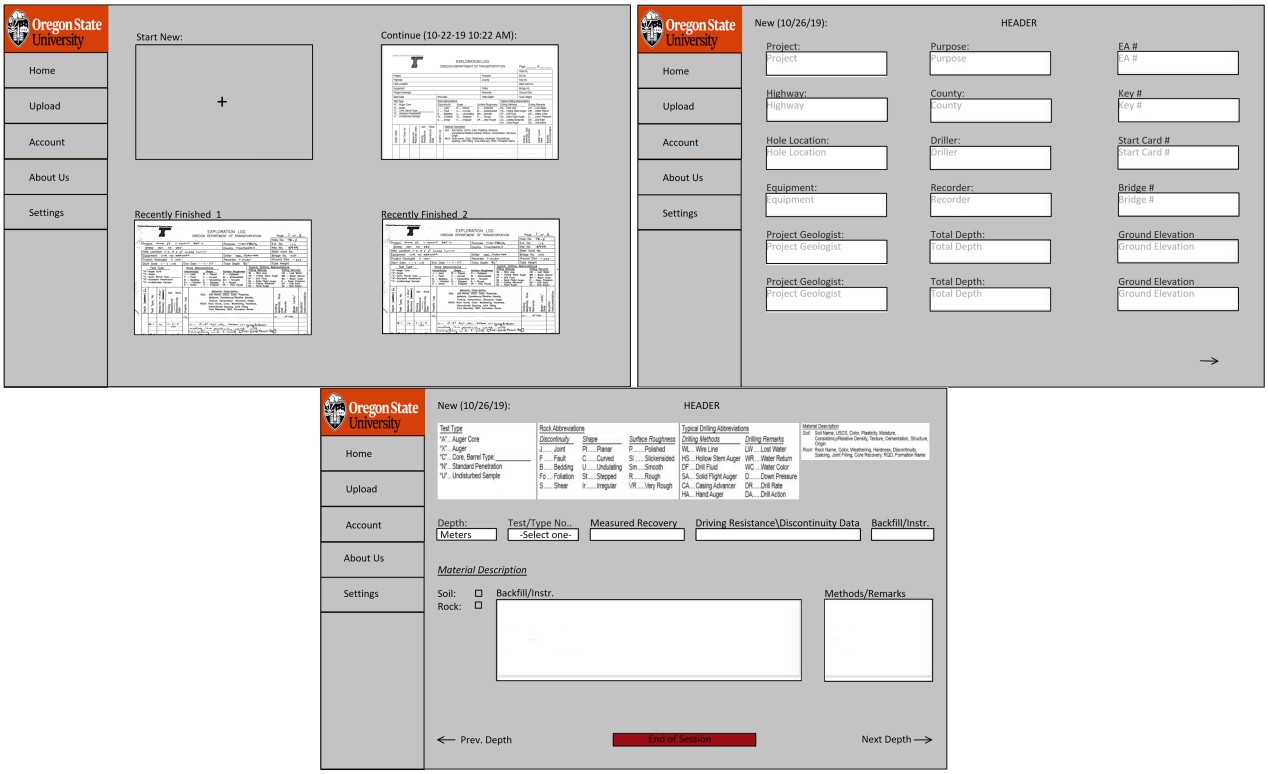

Fig. 2. Mobile Tablet Prototypes Showing the home screen, and many different frames of the document creation process. Made by Sean Spink

3 RETROSPECTIVE

Section	Positives	Deltas	Actions
Problem Statement	We were able to explore the project space and generate some good ideas for moving forward.	Working together allowed us to compile our ideas, and shape a new vision for the project.	Developed our problem statements individually, then as a group.
Requirements Document	Gave us a clearer understanding of the needs of the client. Gave us a starting point to build our design for the application around.	Changed some of the plans to better fit the schedule of the class	Review the Gantt-chart at the start of next term to further refine the schedule and adapt the timeframe
Tech Review	We learned about the technology involved in our project and discussed implementation restrictions with client	Changed presumed programming language and UI framework.	Our team will use Dart and Flutter
Design Document	Detail oriented meetings with client and associates to further refine our design choices and made concrete decisions for critical aspects of the project that were questions in previous weeks.	Review and alteration of our previous documents for formatting and feedback given by our client and peers.	Met with graduate students, finalized plan for integration with gis project.
Progress Report	Learned how to utilize LaTeX.Finalized initial design decisions and client additions after most recent meeting. Reviewed and agreed on choices regarding organization moving forward.	Keep a consistent formatting for all of our documentation.	We have a template now that will help us to keep consistent formatting in future documentation. Finalized design decisions as a baseline for starting implementation.