

Software Development Capstone Topic Approval Form

The purpose of this document is to help you clearly explain your capstone topic, project scope, and timeline. Identify each of these areas so that you will have a complete and realistic overview of your project. Your course mentor cannot sign off on your project topic without this information.

Note: You must fill out and submit this form. Space beneath each number will expand as needed.

Any cost associated with development of application will be the responsibility of the student.

INFORM MENTOR OF:

Potential use of human subjects: N

Potential use of proprietary company information: N

ANALYSIS:

1. Project topic AND description: Christie's Companions – a web application for managing a small dog breeding business.
2. Project purpose/goals: The Customer, Christie's Companions is a small dog breeder that specializes in breeding support animals. Currently, the Customer manages records (pedigree, age, vaccinations, etc) of each animal on paper. This has become quite cumbersome. Furthermore, the Customer wishes to create a website to market the animals that can also serve as a catalog. The project seeks to provide a solution to these needs by implementing a web application with a public facing display of data maintained by a content management system.

DESIGN and DEVELOPMENT:

1. Application Type: Web
2. Programming/development language(s) that you will use: Ruby, Javascript
3. Operating System(s)/Platform(s) that you will use: Ubuntu 18.04.3 LTS, Rails, Hyperstack
4. Database Management System you will use: PostgreSQL 10.11
5. Estimated number of hours for:
 - i. Planning and Design: 8
 - ii. Development: 80
 - iii. Documentation: 16
 - iv. Total: 104
6. Projected completion date: 12/20/2019

IMPLEMENTATION and EVALUATION:

1. Describe how you will approach the execution of your project:
 - i) The Developer will meet with the Customer to define the full scope and create user stories. The Developer will create interface mockups from the user stories to be reviewed by the Customer on the second meeting. Iterate until final design is approved by the Customer.
 - ii) After design is approved by the Customer, the Developer will divide the user stories into GitHub issues and plan a schedule for implementing each user story before the deadline.
 - iii) Then, the Developer will begin development. This will start with setting up a GitHub repository, scaffolding a web application using Ruby on Rails, and setting up a staging environment on Amazon Web Services.

- iv) Then, the Developer will act according to the schedule developed in (ii), meeting with the Customer to ensure that all functionality for the scheduled user stories are being met.
- v) After initial development is complete, the Customer will do user acceptance testing. If defects are found, the Developer will address them, iterating this process until user acceptance testing is complete to the Customer's satisfaction.
- vi) The application will be deployed to production and domain names will be pointed.
- vii) Support for the application begins, to include fixing of security vulnerabilities (both to the environment and the application itself) and bugs, as well as maintaining periodic backups.

Out of scope:

- Search Engine Optimization
- Entry of paper records into the system
- E-commerce, handling of payments

STUDENT SIGNATURE

Michael Irick 11/16/19

By signing and submitting this form you acknowledge any cost associated with development and execution of the application will be the responsibility of the student.

COURSE MENTOR'S NAME: Joe Barnhart



COURSE MENTOR APPROVAL DATE: November 16, 2019

Project Compliance with IRB Y/N: Y