Code Quality Assurance Plan (D4)

Date: 11/5/2020

team name: Golden Geese
project name: NFC Website

Code Quality Assurance:

Software Description

The NFC website will provide visitors of the Madison County community towers easy access to more information relevant to the corresponding townships through the use of NFCtags. In addition, users will be able to listen to an audio playback of the information presented on the towers as well as the additional information on the website; thus,sight-impaired people will be able to enjoy the community towers as well. QR codes will be redundant mechanisms to support older devices incapable of NFC reading.

Roles and Responsibilities

The customer proxy maintains a link between the client and the group to provide consistent communication. The code quality assurance managers work to uphold the quality standards outlined in this document. The usability quality assurance manager upholds the standards outline in the following document, D5.

Requirements and Design Phase

As the requirements may change as the client sees possible designs for the application, these phases are combined and ongoing prior to the implementation phase. The bulk of these phases will be focused on fine tuning the look and feel of the application using weekly client feedback on interface prototypes. In addition, a database may need to be designed to store the audio clips. An abstract template to allow for future additions in the form of new entries relevant to the application will be designed as well to allow for simple editing.

Implementation Phase

The implementation phase will be based off of the information gathered from the previous requirements and design phases

Every week of development, the team will meet up together twice. Once with the client and once with just the team members. During the meetings with clients, we will use our time together to ensure functionality and intuitiveness of implemented systems. During our meetings with just the team, however, we will take the opportunity to examine one another's code and determine what fixes and changes we could implement. During these reviews, we will be looking for redundancies, as well as comparing it to our existing documents.

To begin our development process, we will be employing a use case document. This will allow us to begin to structure the hierarchy of the code we will be writing, as well as to ensure the ideological integrity of the project by beginning with a user-oriented perspective to development.

From this use case document, we will begin to extrapolate the paradigms necessary to implement our code. These will become a Design Class Document, which will detail the input and output of each class in an object-oriented way. Beginning with this high-level approach will allow us to build the code in an iterative, object oriented way, rather than building in hard-coded workarounds and inconsistent architecture.

Further, once we have the blueprint of our project created in the DCD, we can begin to create sequence diagrams for each use case. This will allow us to manage the lifecycle of each object in our code, as well as implement strategies like expert, control, and interface paradigms. This strategy will allow us to rapidly and consistently develop extensible, readable, and maintainable code while also breaking the development into sprints based upon use cases.