CS 6440 - Fall 2016

Team Radio Star

**Architecture & Implementation Plan**

**Summary**

* Application will be a web app, accessed via browser on mobile phone, tablet, or desktop computer. There will be no offline functionality.
* Application will consist of a device-scaled front end/UI, a RESTful data service, and a NoSQL database for storage.
* Application should be able to deploy in a container on any major cloud platform.
* Application should run correctly in recent versions of all the following browsers: Chrome (incl. mobile), Safari (incl. mobile), Firefox, IE 11, Edge.

**Technology Stack**

**Front End/UI**

* **React** for general UI framework
* **Bootstrap 4** for styling and UI components, device compatibility
* **Redux** (if we end up requiring a notion of state)
* **ES6** for writing code, **Babel** for browser targeting
* **SASS** for styling
* **Webpack** for bundling
* **Mocha** for unit testing

**Back End/REST API**

* **Node.js** for server-side code
* **Express.js** as a server side framework/router
* **Mocha** for unit testing
* **MongoDB** for storage

**Development Process**

* **Git** for source control
* **Github** for repository management
* **Zenhub** plugin for issue tracking

**Build/Deployment**

* **Docker** for containers
* **MS Azure** for hosting