

## Group Project Phase II

When addressing this elaboration phase in our development plan, we set out to flesh out the prototype design mock-up with actual functionality.

In this document, we provide class and sequence diagrams that offer a high-level view of how the app was built and its use-cases. We also give an overview of how these classes/components interact to make the visual prototype we submitted in Phase I functional.

**Tools used:** After completing the prototype in the Inception phase, our team agreed that creating a web app would be the ideal format for this project. This decision helped us narrow the scope for which tools to use to build the app. We decided to use JavaScript and the React.js library, since these are object-oriented and ideal for web-based collaborative projects employing an Agile framework such as UP. Last, since our whole team was comfortable using GitHub for version control, we decided to use it as a platform to collaborate. Here is the link to the repository we are creating our project in: <https://github.com/zayatMark/3220-group-project>

### Overview of classes (see diagrams below for a visual representation):

- *App*: the “root” of our app, orchestrates the other classes. Determines which main component (like *HomePage* or *MultiDataView*) should be displayed depending on what the user navigates to.
- *HomePage*: The first screen users see when visiting the site. Contains *HomeCarousel*, which showcases images and banners. Also contains *VerticalDataList* for listing recent datasets.
- *VerticalDataList*: Is responsible for instantiating a list of *DataItems* and rendering their information on screen using *VerticalDataListItem*s.
- *DataItem*: A class that encapsulates the data required to show within a single *VerticalDataList* element.
- *MultiDataView*: Users interact with this class when they start exploring datasets. It’s responsible for presenting data in a way that can easily be filtered according to parameters and checkboxes.
- *Classification*: this class is responsible for handling the actual logic of filtering the datasets based on the user’s desired criteria.
- *Overview*: This handles the site’s behaviour when the user selects a specific dataset to view more details. It combines *Image* and *Detail* to provide a more comprehensive view of the selected dataset.

- *Detail*: Within the Overview class, the Detail component can contain several collapsible Dropbox components that organize data and allow users to explore information in a structured way.
- *Navbar*: Available on all the site's pages. Allows users to access the other main pages of the web app.
- *LoginForm*: A page that will allow for users to sign in. Our web app will allow authorized users to register and access the data. This will add a great deal of functionality: one, it allows for users to save or access certain data sets more quickly, and two, it allows a hierarchy of users where certain users have access to more features than others (i.e. City staff or administrators).

### **Next iteration plan:**

During this phase, we agreed that our priority would be to create the main components that make up the web app. Now that we have a foundation with all the main components and pages routed together, our priority for the next iteration is beginning the work of properly integrating relevant data sets from the City of Windsor's website. We will allow for the relevant .csv file of the data to be downloaded and for other useful information, such as a table, to be viewed directly in the browser. Additionally, although the UI/UX elements have been developed, these still need to be refined to optimize our users' experience.

### **Collaboration overview:**

- Mark - Project management, diagrams
- Eli - Home page and corresponding classes, App component, page routing
- Rocio - Multiview page and corresponding classes
- Keerat - Log-in page and corresponding classes
- Lee - Overview and corresponding classes
- Moussa - Navbar and corresponding classes
- Miran - Dataset integration functionality