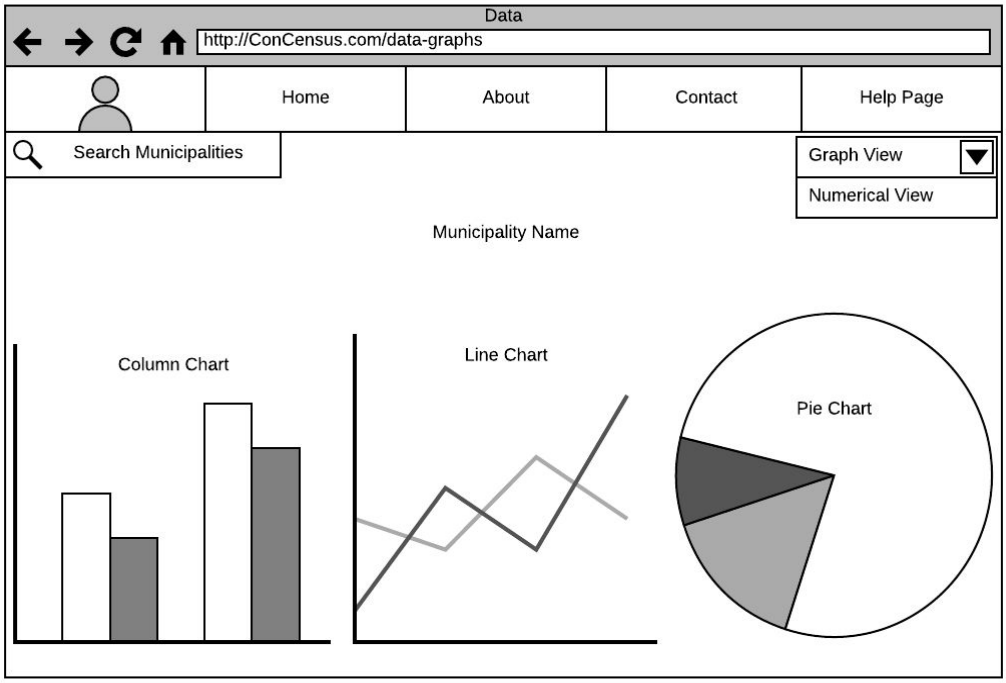
Sarem Shalforoosh
Lisa Walker
Calvin Kim
Danielle Pernice
Russell VanCleve
Teeghen Haer

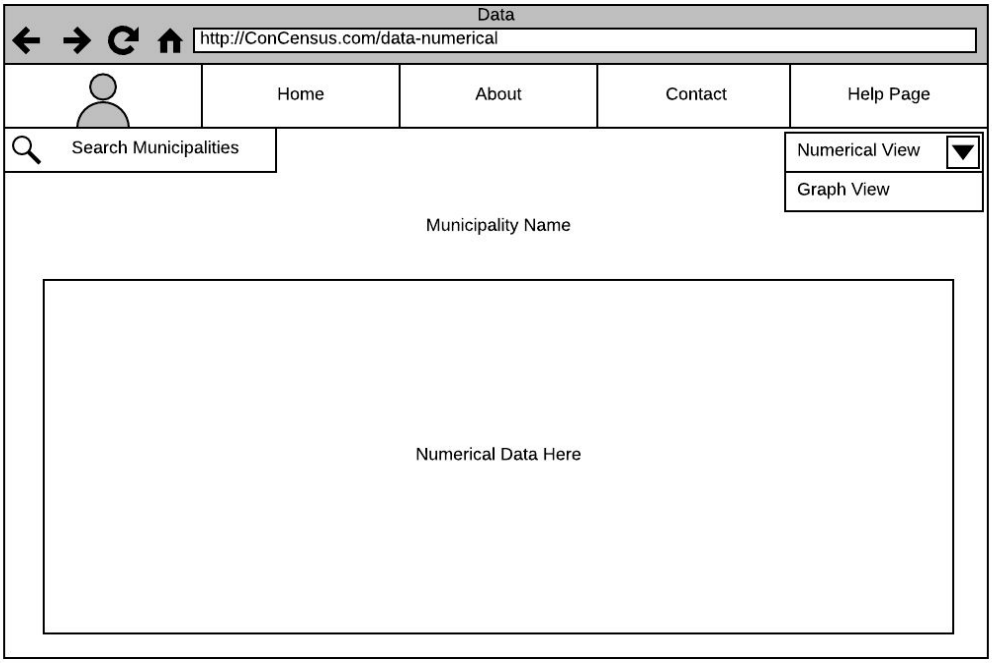
Iteration IV- Elaboration: Design

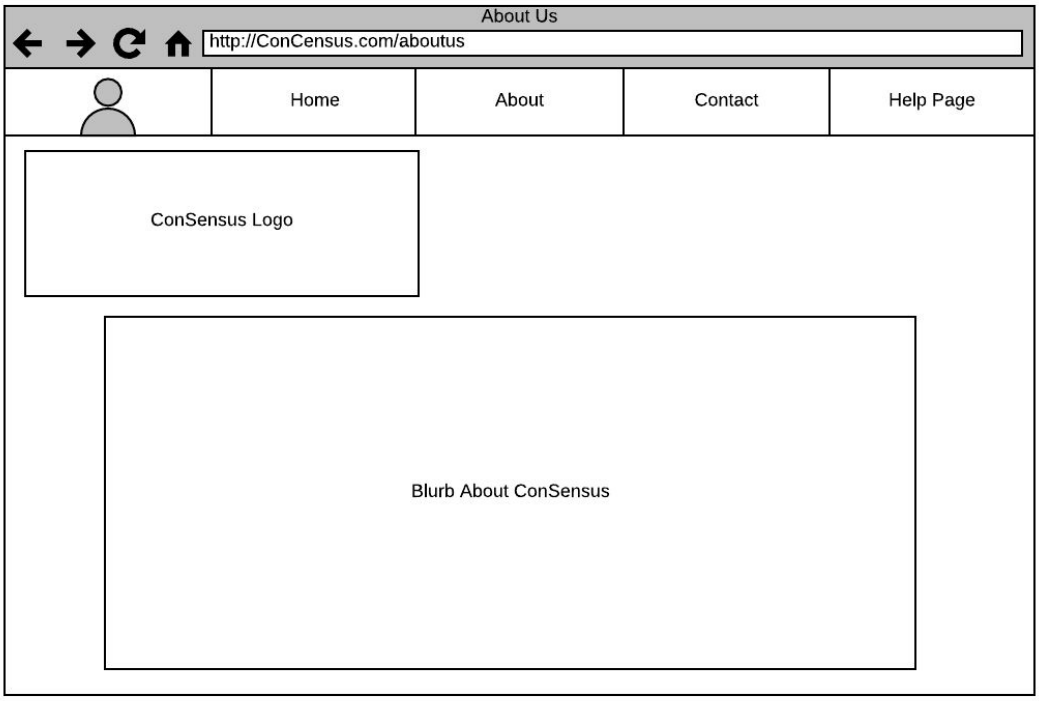
Innovation Class:

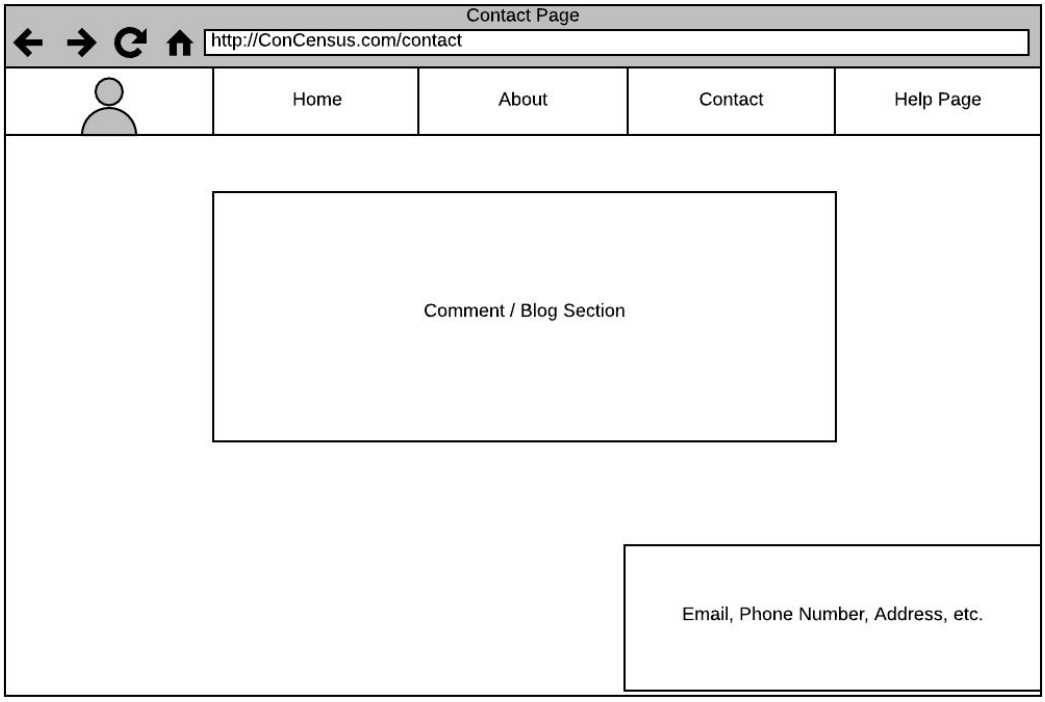
- Mockups of user interface showing the screens that user will see. Explain, with examples, how the system will satisfy the core principles of user interface design.

When deciding how to make the outline of the website we focused on a large fundamental characteristic that we deemed necessary for a successful website. This was being user friendly, which includes making the site easy to navigate, the data easy to read, and the layout of the pages simple, yet attractive. The homepage is a basic home page. It gives the user the ability to search a municipality and then they will be directed to a page that provides data for the given municipality. When viewing the data, graph view will be the default view for the Census Data, but you can choose numerical data by going to the upper right corner of the page and selecting Numerical View. We also included an about us page that will hold basic information about CoCensus, as well as a contact page that allows you to directly contact CoCensus with any questions.


Data
http://ConCensus.com/data-graphs
Home
About
Contact
Help Page
Search Municipalities
Graph View
Numerical View
Municipality Name
Column Chart
Line Chart
Pie Chart


Data
http://ConCensus.com/data-numerical
Home
About
Contact
Help Page
Search Municipalities
Numerical View
Graph View
Municipality Name
Numerical Data Here


About Us
http://ConCensus.com/aboutus
Home
About
Contact
Help Page
ConSensus Logo
Blurb About ConSensus


Contact Page
http://ConCensus.com/contact
Home
About
Contact
Help Page
Comment / Blog Section
Email, Phone Number, Address, etc.

- A discussion of the types of user testing that can be conducted on the project.
    - The first form of user testing that can be conducted is called “guerilla testing”. Once the web app is created we must be sure that the user face is easy to understand and navigate. In order to do this, we will travel to local coffee shops and bookstores where people tend to gather for extended periods of time and ask volunteers to take a look at the web app and try to navigate it for a few minutes then gather feedback on the convenience and comprehension of the web app. Questions could include: Did you find this easy to navigate? Do you understand the information presented? What was your favorite and least favorite data display figure and why?
    - Once we get feedback from the general public that most likely do not look at this kind of data on a daily basis, we will continue on to ask municipality officials to test the web app but they will be encouraged to do more that just look at the data. A random sample of municipality officials from a 30 mile radius will be split into 2 groups: the experimental group and the control group. The experimental group will be given our new web app with the updated data display figures while the control group will be given the existing data display figures. Both groups will be asked a series of decision making questions that relate to the data they will be presented and they will be timed in order to determine if one method or the other is more efficient. The results will determine if the new data display alters the decisions being made regarding census data or if the existing data display and our new data display does not differ significantly.
- A discussion of innovative ways to encourage public volunteers and future students, whether programmers or social innovators, to maintain, improve and grow the project.
    - Once put into effect, everyone will see how this project can add more value to their lives regardless of occupation or demographics. This site will help users to understand why the government makes decisions the way they do. Census data is used to reapportion seats in the U.S House of Representatives, publish redistricting data, determine funding from state government to local municipalities including: Medicaid, highway and construction planning, special education grants to states, and the national school lunch program. The data also goes into determining the need for public sectors such as roads, hospitals and schools, and determining the need for emergency response in case of a disaster (such as the COVID-19 national pandemic). Being able to visualize this data can help users to see the change in statistics overtime in their area
    - Many businesses will be able to use this data and be able to better understand the area and the people they are working with and hiring. This will be beneficial to potential business owners, who were once students, learning about making change in the world. With businesses being able to better view and interpret census data,

it'll make for easier decision making. Decisions such as business site location, determining a target market for a designated area, and identifying county and business demographics will enable businesses to expand their markets. Being able to better read and analyze this kind of information can be useful to anyone, and should be a motivation to continue contributing with feedback to help improve the site overtime, and help it to grow into a resource people will utilize.

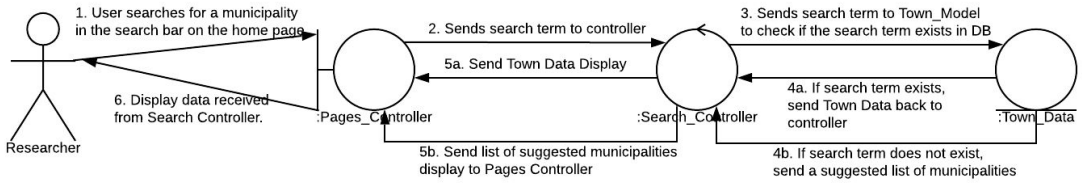
- Revised and deepened narrative documentation from prior steps, where applicable.
    - Not Applicable

Software Engineering Class:

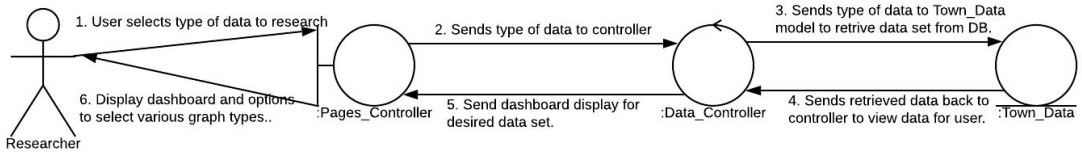
- Detailed Design Class Diagram

- System Sequence Diagram(s) or Collaboration Diagram(s)

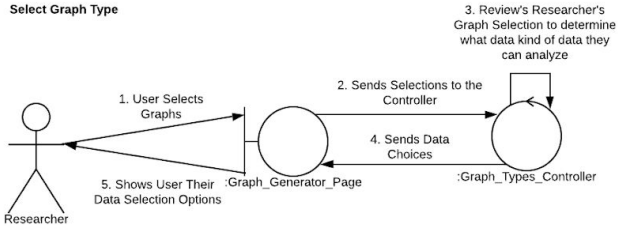
Search for Municipality



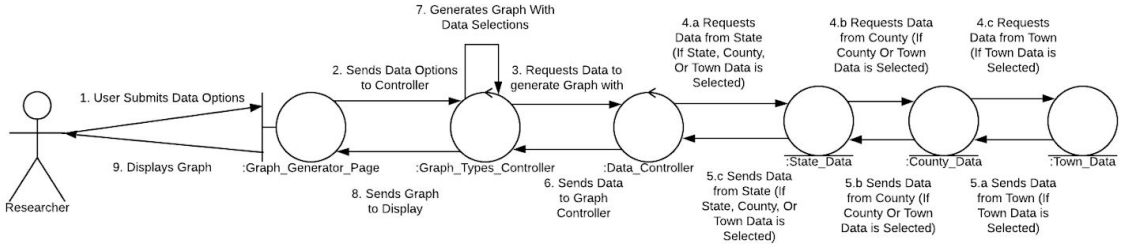
Select Data to View



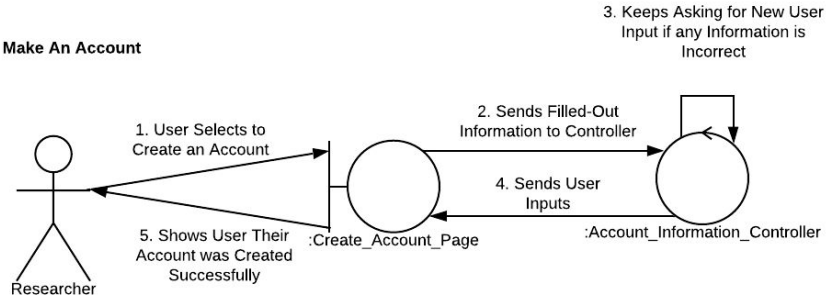
Select Graph Type



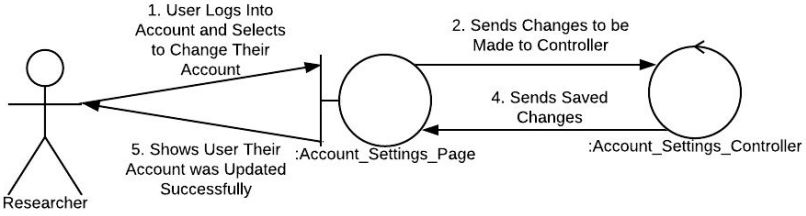
View Outputted Graph



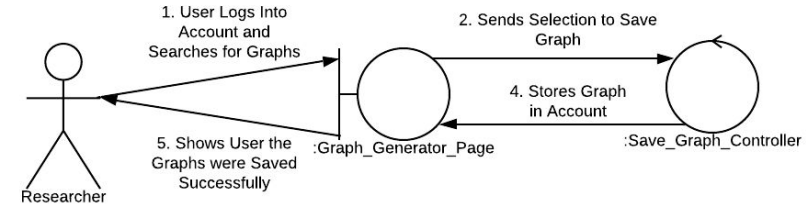
Make An Account



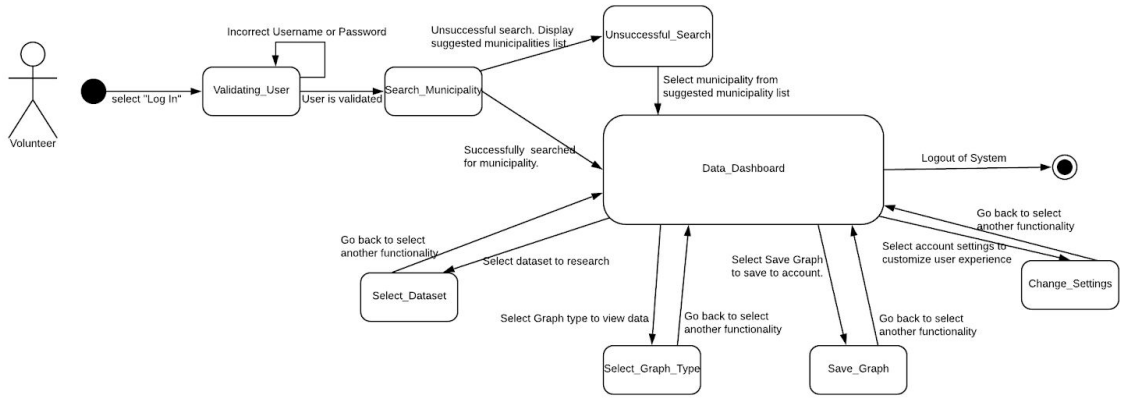
Change Account Settings



Save Graphs to Account



- Detailed Statecharts for each major functionality



- Detailed Test Case Design (TCD) that will be used to test the system in Iteration V. Refer to the Use Cases from Iteration III while developing the TCD, and ensure complete test coverage.

URL: http://csc415-s20-team11.hpc.tcnj.edu:3000/

Description: ConCensus is a data visualization website that produces data visualization based on census data for municipalities. We have the user interface setup, user authentication/registration set up, and the different data visualization examples set up.

Progress and known issues: So far we have the base template of our application running. The home screen works and all the tabs on the data presentation work. Also where it says “want to save your work” is the section that allows you to login and make an account. Everything else on the page is either nonfunctional or leads to an unknown page/an exception.

Green = Fully Implemented
Yellow = UI Implemented but non-functional
Red = Not Implemented at all

Functionality Tested	**Inputs**	**Expected Output**	**Actual Output**
Searching for a Municipality	User enters a municipality in the search bar on the home page	-If municipality found: List of different types of data for municipality is displayed -If municipality not found: List of suggested municipalities is displayed	
Selecting data to view	A specific piece of data is selected by the user to view	List of different graph types available for that data is displayed	
Selecting graph type	User selects a graph type to view	All selections made by user are displayed	
Viewing output graph	All selections are made by the user and they submit these data options	Displays the correct graph	
Making an account	User selects to make an account and fill out all the mandatory	Notification that account was created successfully	

	fields		
Changing account settings	User accesses account settings, changes anything they desire, and saves these changes	Notification that account settings were changed successfully	
Saving graphs to an account	User selects to save a graph that they searched for	Notification that graph was successfully saved to the user's account	