Naval Biodiversity

Overview:

In this project, we used Plotly.js and JavaScript data visualization library, to create an interactive data visualization for a website, where we can visualize the types of bacteria that colonize the gastrointestinal track of the study participants. This visualization will allow the users to parse the Naval Biodiversity data through an interactive website.

Resources:

* Data Source: samples.json
* Software: Visual Studio
* HTML code: index.html
* JavaScript code: charts.js
* Style .css code: style.css

Results:

Javascript and HTML were used to retrieve data from the starter code folder; specifically the JSON file. Objects and arrays were created to retrieve the necessary data from the JSON file. The result was an interactive webpage that allows the user to parse through the data using a dropdown menu.

* For each ID we have created:
* A panel that shows demographic information such as ID, ethnicity, gender, age, location, bbtype and wfreq.
* A horizontal bar chart to display the top 10 bacterial species (OTUs).
* A bubble chart that displays Bacteria cultures per sample.
* A gauge chart to display the weekly washing frequency's value (wfreq).
* Finally, we have used HTML and Bootstrap to customize the webpage by:
* Adding an image to jumbotron.
* Add background color to the webpage.
* Using a custom font with contrast for the colors.
* Adding user instructions on the top of the page.
* We must note that when the dashboard is first opened in a browser, ID 940’s data is displayed in the dashboard, and the three charts displays data related to ID 940 (See Fig.1)

Summary:

We've built an interactive dashboard to explore the Naval Biodiversity data which catalogs the microbes that colonize the human navel. It is recommended that once this is out of testing to make it into a mobile application and web-page mobile responsive.