

Belly Button Biodiversity - interactive dashboard for a data set:

<http://robdunnlab.com/projects/belly-button-biodiversity/>

Step 1 - Use Plotly.js to build interactive charts

- * Create a PIE chart that uses data from your samples route (`/samples/<sample>`) to display the top 10 samples.
 - * Use ``sample_values`` as the values for the PIE chart
 - * Use ``otu_ids`` as the labels for the pie chart
 - * Use ``otu_labels`` as the hovertext for the chart
- ![[PIE Chart]](Images/pie_chart.png)
- * Create a Bubble Chart that uses data from your samples route (`/samples/<sample>`) to display each sample.
 - * Use ``otu_ids`` for the x values
 - * Use ``sample_values`` for the y values
 - * Use ``sample_values`` for the marker size
 - * Use ``otu_ids`` for the marker colors
 - * Use ``otu_labels`` for the text values
- ![[Bubble Chart]](Images/bubble_chart.png)
- * Display the sample metadata from the route ``/metadata/<sample>``
- * Display each key/value pair from metadata JSON object somewhere on the page
- * Update all of the plots any time that a new sample is selected.
- * UNIQUE, ORIGINAL layout you like for your dashboard. An example
- * Place your name in the upper right-hand corner of the window to sign your masterpiece!

Step 2 - Heroku — Deploy your Flask app to Heroku.

- * CAN use the provided sqlite file for the database. Ask prof/TAs for help!

Advanced Challenge Assignment (Optional) — very advanced.

- * Adapt the Gauge Chart from <https://plot.ly/javascript/gauge-charts/> to plot the Weekly Washing Frequency obtained from the route ``/wfreq/<sample>``
- * (Modify the example gauge code to account for values ranging from 0 - 9.)
- * Update the chart whenever a new sample is selected

Flask API - Use Flask API starter code to serve the data for your plots.

- * Test your routes by visiting each one in the browser.

Hints

- * Don't forget to ``pip install -r requirements.txt`` before you start your server.
- * Use ``console.log`` inside JavaScript code to see data at each step.
- * Refer to the [\[Plotly.js Documentation\]\(https://plot.ly/javascript/\)](https://plot.ly/javascript/) on plots.