**Visualization Technologies Final Project**

Goal:

Show the distribution of refugees around the world in a choropleth map. Once the user selects a country of origin (for example, Syria), they can visualize the distribution of refugees from that nationality in countries around the world in a map.

Visualization

**Choropleth**

1. Import UNHCR data using d3.csv

* Parse data (select and rename columns)
* Create a lookup table in which the names of the country of residence can be connected to the name of the country in the geojson file

1. Import GeoJSON data using d3.json
2. Drawing the map

* Select and define a projection for the map
* Use the path generator in the projection to generate the geometry for each path element
* Append a path for each geoJSON feature, give it a class of .country and the corresponding geometry
* Adjust the size of the map to the screen

1. Tooltip

* Create a tooltip for each time we hover over a country
* What information should be in the tooltip (country name, number of refugees from selected country living there, what else?)
* Unselect country when mouseleaves

1. User interaction

* Enable the user to select a country beforehand so that that selection filters the data we have - HOW?

1. Choropleth Scale

* Find min and max values to set up the domain for the color scale
* Set up color scale
* Show choropleth map only when selection is made

**Sankey Diagram**

[**https://github.com/d3/d3-sankey**](https://github.com/d3/d3-sankey)

[**http://bl.ocks.org/d3noob/c9b90689c1438f57d649**](http://bl.ocks.org/d3noob/c9b90689c1438f57d649)

1. **Parsing the data**

**Nodes - countries**

**Links – source: country origin / target: country residence**

**Return {**

**}**

**General info on Sankey Diagrams:** [**http://www.sankey-diagrams.com/**](http://www.sankey-diagrams.com/)

**D3.sankey reference:** [**https://github.com/d3/d3-sankey**](https://github.com/d3/d3-sankey)

**Code for Sankey Diagram:** [**http://bl.ocks.org/d3noob/c2637e28b79fb3bfea13**](http://bl.ocks.org/d3noob/c2637e28b79fb3bfea13)

**Text explaining it: <https://leanpub.com/D3-Tips-and-Tricks/read#leanpub-auto-how-d3js-sankey-diagrams-want-their-data-formatted>**

**D3 book:** [**https://leanpub.com/D3-Tips-and-Tricks**](https://leanpub.com/D3-Tips-and-Tricks)