UCSD Data Science Bootcamp Project 2 Visualization Proposal, 3/25/20

2020 COVID-19 Pandemic Data Visualization

Team Members:

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Assignment

1. Your visualization must include a Python Flask–powered RESTful API, HTML/CSS, JavaScript, and at least one database (SQL, MongoDB, SQLite, etc.).
2. Your project should fall into one of the below four tracks:
   * A custom “creative” D3.js project (i.e., a nonstandard graph or chart)
   * A combination of web scraping and Leaflet or Plotly
   * A dashboard page with multiple charts that update from the same data
   * A “thick” server that performs multiple manipulations on data in a database prior to visualization (**must be approved**)
3. Your project should include at least one JS library that we did not cover.
4. Your project must be powered by a data set with at least 100 records.
5. Your project must include some level of user-driven interaction (e.g., menus, dropdowns, textboxes).
6. Your final visualization should ideally include at least three views.

Project Objective

* Visualize current COVID-19 outbreak timeseries data, at the country, state and county level (if possible) to understand the spread of the pandemic.

Project Description/Outline

* The user will see a web dashboard with multiple views and a selector. (See below.)
  + A Racing animated horizo
  + A screenshot of a cell phone

    Description automatically generated

Research Questions to Answer

* How do AirBnB rental rates correlate with local income levels.

Rough Breakdown of Tasks

* Pull down the three data sets into a Jupyter Notebook.
* Join them together.
* Put the joined results into our Postgres DB.
* Do some simple data exploration to convince ourselves that it is usable.
* Build a report.