Queen Mary
University of London

ECS781P: Cloud Computing
Lab Instructions for Week 10

Data Visualization

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Data Visualization

One of the pieces that a data-related app needs is data visualization. We will use a convenient package to introduce data visualization to our `Flask`-based app, called `bokeh`. Data visualization and user-interaction is typically done using javascript (and its powerful packages like `D3, visual.ly`, etc.). Bokeh is a wrapper that provides a Python API. Under the hood, it converts our python codes to javascript codes.

1. Make sure you understand the difference between server-side and client side scripting. Which one is javascript used for?
2. Download the template and python files from QMPLUS. These codes are borrowed from the following repository:
   https://github.com/bokeh/bokeh/tree/master/examples/embed/simple.
3. Put each in the appropriate directory in your app (htmls go under template, all views files go into your app package folder.)
4. Edit the files such that the page is served from the following sub-route: `/visualization`.
5. Don't forget to `import` the `simple` in your app, either by editing `__init__.py`
6. Edit the `setup.py` file in your root directory to tell openshift to use the appropriate packages.
7. Activate your virtual environment and pip install the appropriate packages (`bokeh` most notably.)
8. Test the app locally and if it works, test it also on the cloud.
9. Show the running app to a lab supervisor before leaving.