Background and context

We are planning to build a country metrics (GDP, population, etc) predictor. We plan on building a machine learning algorithm that can generate future metrics using training data from 1956 - 2017. Our chosen metrics will be weighted into one easy to understand coefficient which we will attempt to forecast. We also plan to display this data for all countries in a GUI (maybe website?) that is also interactive. Users will have the ability to manipulate the weights of the metrics they value more (ex. high population is important, thus more weight). The GUI will display the according coefficient depending on the inputted weights of the user.

The program will have two components the machine learning aspect and the GUI/website aspect. The machine learning model will be responsible for using prior data to generate future data. The GUI will be responsible for displaying the outputs. The interactive user interface make changes to the model, which will then change the displayed metrics.

Key questions

We want to ask questions regarding two areas of discussion:

Risk identification and mitigation:

1. Where do you think our biggest challenges with lie in our proposed project scope?
2. We've identified that we will need a large amount of data for this project, and we are planning to use data provided by The World Bank. However, we would appreciate other sources of data if reviewers know of better resources for us.

Software architecture discussion:

1. One GUI method we have used is pyGame. Other than pyGame, what other methods would you recommend we try in creating an interactive user interface?
2. What other interactivity other than sliders would you like to see?
3. For those with understanding of ML, what types of algorithms would you recommend we look into (beyond linear regression)?

Agenda for technical review session

0 - 3: Explain background and context
3 - 5: Risk identification
5 - 8: Risk mitigation
8 - 12: Machine Learning portion
12 - 16: GUI portion

Miscellaneous

Link to questiona: https://goo.gl/forms/FQgAcxwn3EbHYbxt2

Presentation:
https://docs.google.com/presentation/d/1TcFuYu1QyD7LWLkVo2l1esX80eYeJ9UgclG5H6CrP3w/edit?usp=sharing