PROJECT Pandemic

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Is Hospital capacity that low in USA

How is Market reacting to Pandemic

?

What is sentiment around the world

When is curve flattening in US

Coding Approach & Languages used

Data

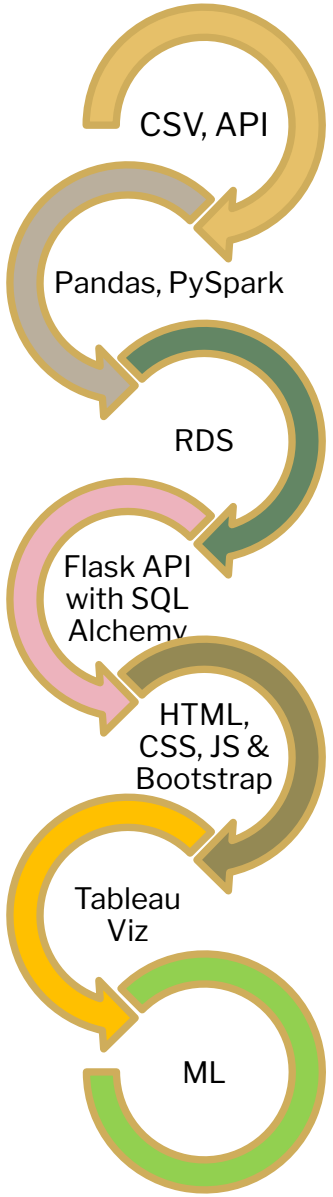
- Collected data from Kaggle and AWS for Epidemic
- Market data collected from “alphavantage.co”
- Completed data cleaning using Excel and Pandas & PySpark

API

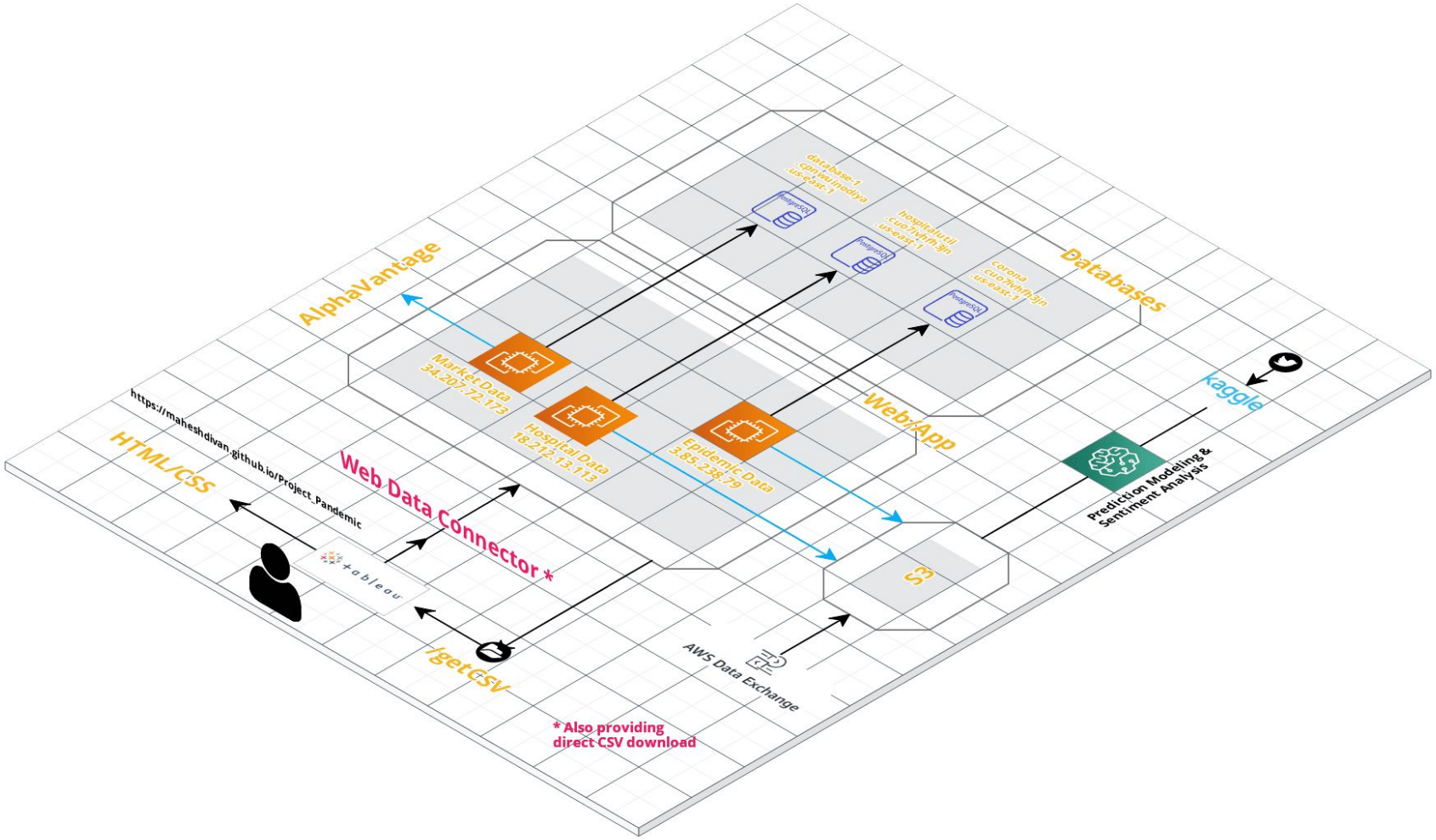
- Wrote an API for Pandemic, Hospital & Market Data
- API backend is AWS EC2 & AWS RDS DB

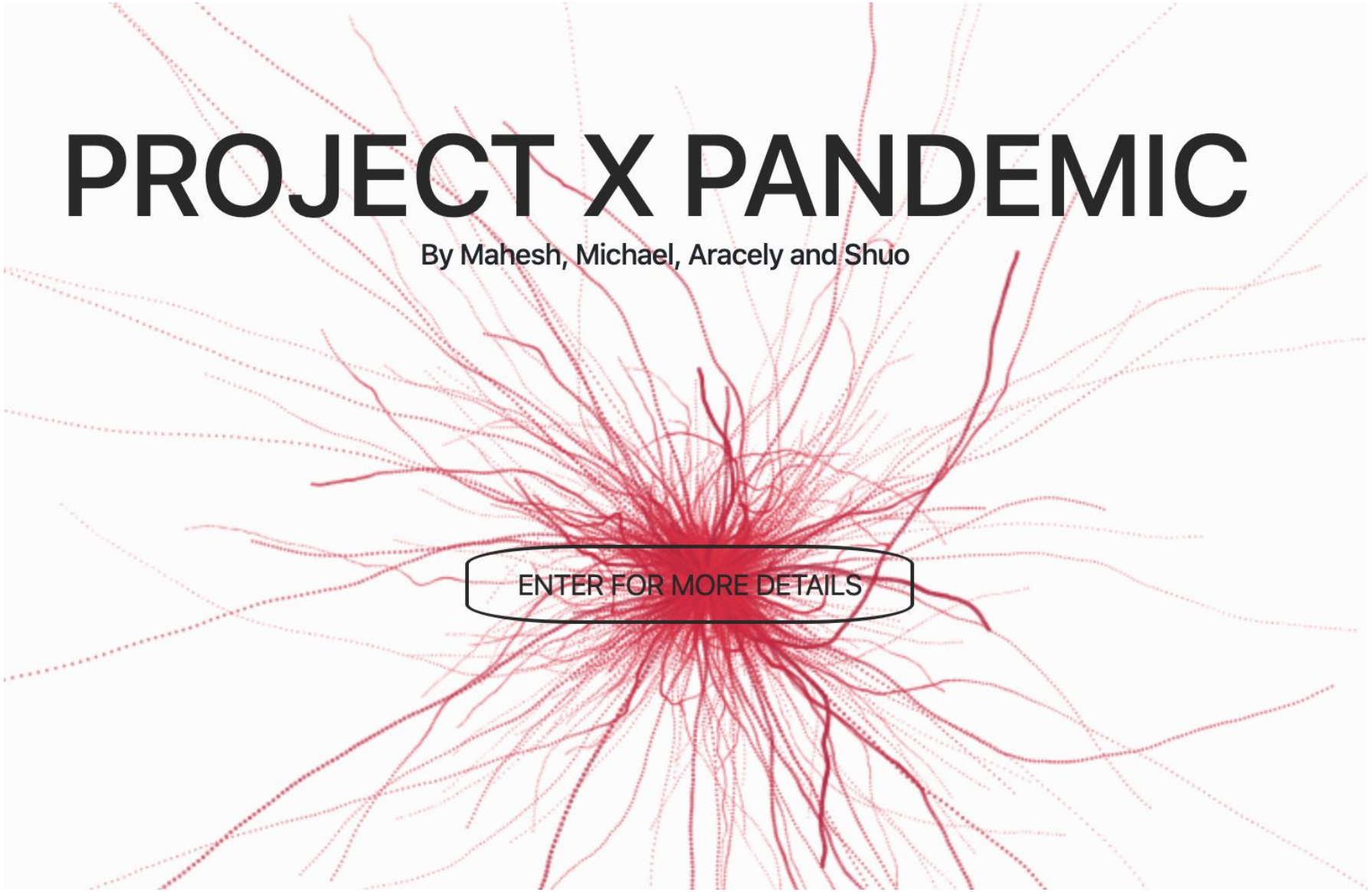
Visualizations & Predictions

- Visualize data using Tableau
- Predict US curve flattening using Sigmoid
- Twitter sentiment analysis using nltk, NB, Linear Model and SVM and selected one with 80%+ confidence



Application Architecture

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Final Observation

- Significant drop in the U.S. market at the start of the pandemic
- Hospital occupancy rates above average in the Northeast region
- Our prediction model proves how difficult is to predict when the “curve will flatten”
  - *Predicted a peak, between 30-40-days from first confirmed case*
- Even though we expect negative sentiment during a virus attack, we can see some positive sentiment as well (may be due to staying home), but overall sentiment is negative.