

Milestone 1 Group 16

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1. Develop an initial idea, and determine the technologies you wish to standardize on as a group. Amazon Web Services should be used for hosting your database and deploying your application.

Initial idea:

We will create an informational website for a user interested in the past, present, and future state of the Zika virus around the world. We want to have an interactive D3 heat map with highlighting that displays the number of cases of Zika in a particular country or US state. When clicking on the country/state, the user will be presented with a small pop-up with the demographics of the virus such as the CDC travel alert level, total number of cases, number of cases per month, speed of spread etc. We want to overlay climate change temperature data to predict how far the Zika will spread in the future with increasing temperature.

Technologies:

NoSQL – MongoDB – for pictures, videos, links and other nontabular data, query data live through Wikipedia

MySQL

Meanstack to communicate between NoSQL and MySQL

Node.js

JavaScript – make actual website

Python to put data in usable format

Amazon Web Services - hosting database and deploying application

2. Provide 6-10 questions (in English) that someone might want to ask about the domain of your intended application.

What is the current state of Zika in the world? In country X?

What is the estimate spread of Zika now and in the future?

I want to go to X country, is Zika there and what is the travel alert?

What is the rate of spread of Zika in country X?

How many predicted cases will be in the future in Country X or Region X that has rate of spread X?

What is the predicted spread of Zika in the future?

How do Zika cases compare in rural and urban areas?

How do Zika cases compare in coastal vs non coastal cases? – Heat maps of different

How do cases compare between countries?

3. Setup Subversion/Git to share source code and starter data files.

Private Github setup.

4. Timeline

Week of Feb 13

Collect data

Exploratory data analysis

Learn MeanStack, NoSQL/MongoDB, Node.js

Week of Feb 20

2nd group meeting

Design user interface

Get data into usable format

Design schema

Week of Feb 27

Design schema

Design user interface

Week of Mar 6

Design schema

Design user interface

Set up website

Week of Mar 13

March 16- Turn in Milestone 2

Put data into SQL and NoSQL

Set up website

Week of Mar 20

Put data into SQL and NoSQL

Set up website

Week of Mar 27

March 28 – Turn in Milestone 3

Week of April 3

April 6 – Milestone 4 – FIRST DEMO

Week of April 10

Any adjustments + advanced features

Week of April 17

Week of April 24

April 27 – 28 – FINAL DEMO

5. Division of responsibilities

Collect data – Frankie

Exploratory data analysis - All

Learn MeanStack, MongoDB, Node.js - All

Design user interface – Frankie

Get data into usable format - Will

Write SQL and NoSQL queries - Lanqing

Design schema - Xilei

Put data into SQL and NoSQL - Will

Set up website – Xilei, Lanqing