IAT 355

Project Proposal

Phase II

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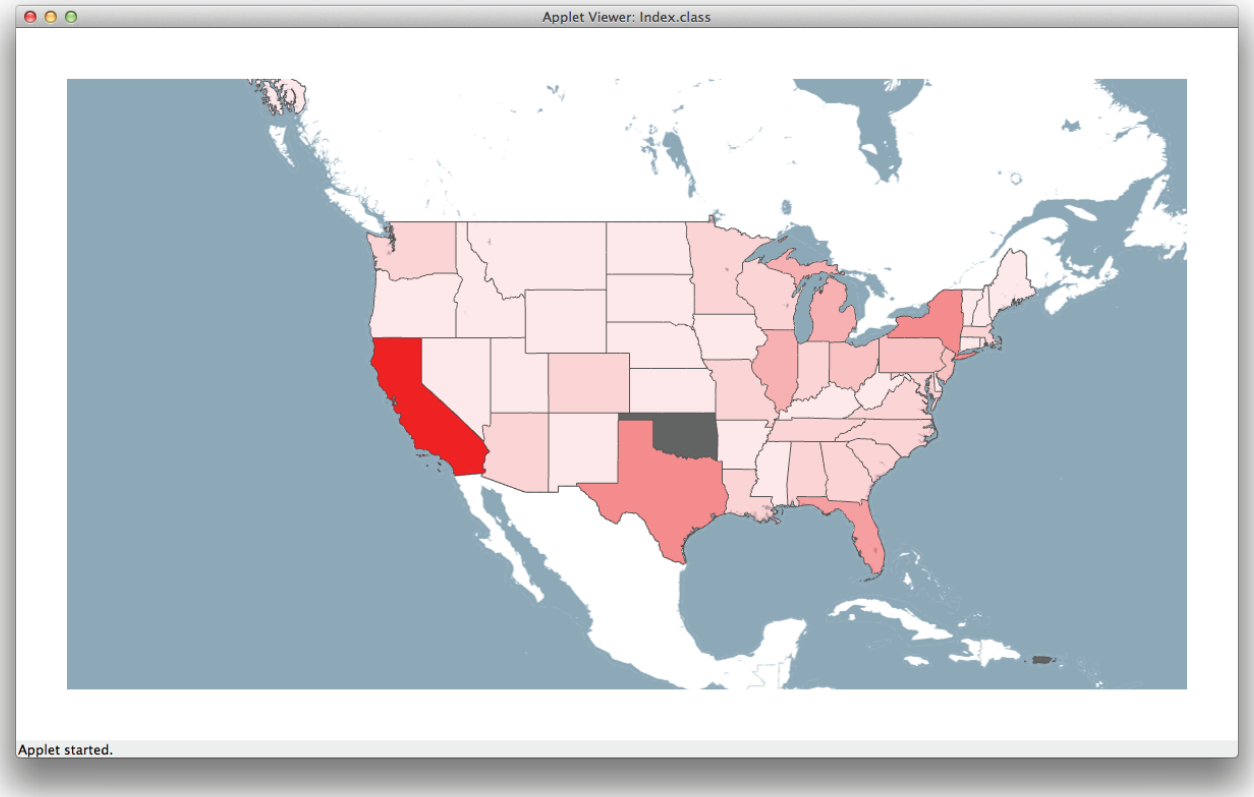
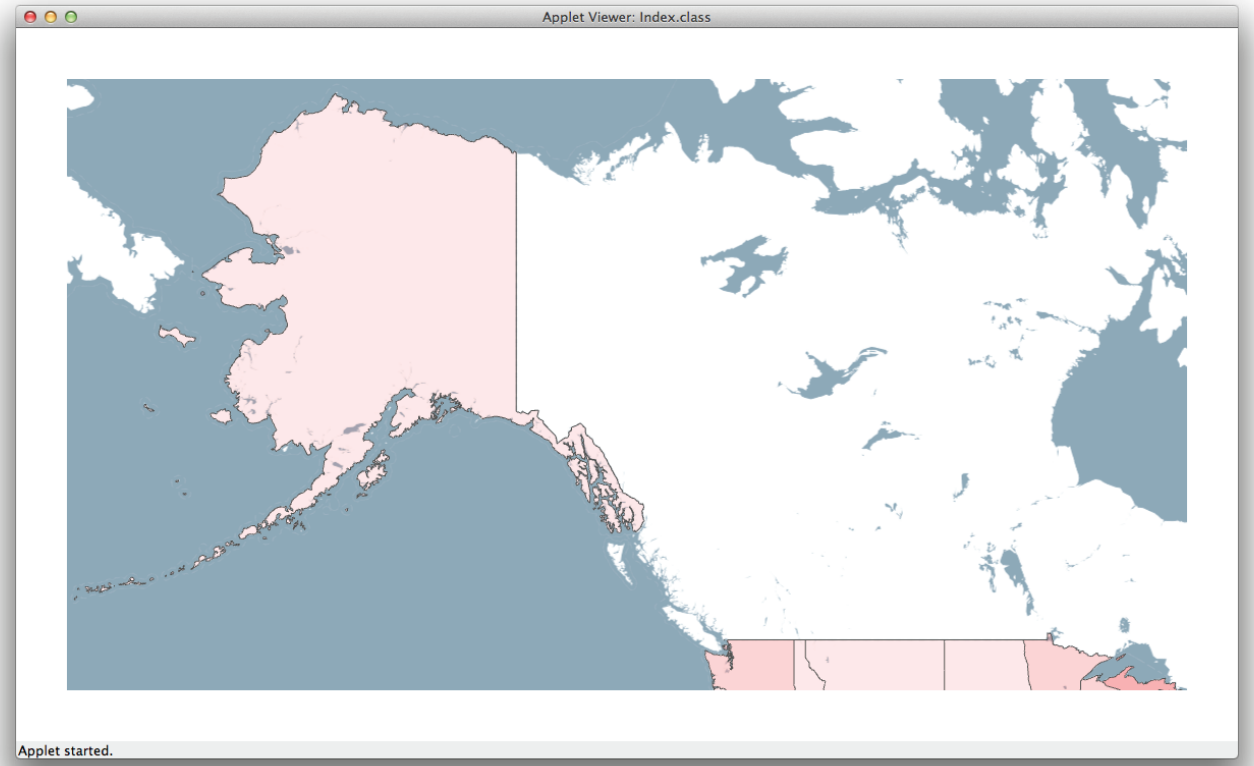
Project Goal

Our program aims to show the presence of a link between the climate and crime rates in each state of the USA across a span of multiple years.

Current Visualization

Our program currently draws a map of the of the USA and colors each state according to the total crime committed in them as dictated by the data file. The map supports panning and zooming.





Data Files

Our program reads data from csv and JSON files. The two main csv files contain the climate data of each state and the crime data of each state respectively. The crime data consists of type of crime, subtype, the year it was committed in and the total count of that crime type. The JSON files are used by the external library Unfolding to identify and mark the various states.

Data File Samples

Climate

State	F	C	Rank
Alabama	62.8	17.1	7
Alaska	26.6	-3	50
Arizona	60.3	15.7	10
Arkansas	60.4	15.8	9
California	59.4	15.2	12
Colorado	45.1	7.3	39

Climate

State	Crime Type	Crime	Year	Count
Alabama	Violent Crime	Murder and nonnegligent Manslaughter	1960	406
Alabama	Violent Crime	Murder and nonnegligent Manslaughter	1961	427
Alabama	Violent Crime	Murder and nonnegligent Manslaughter	1962	316
Alabama	Violent Crime	Murder and nonnegligent Manslaughter	1963	340
Alabama	Violent Crime	Murder and nonnegligent Manslaughter	1964	316
Alabama	Violent Crime	Murder and nonnegligent Manslaughter	1965	395

Program Description

Our program consists of three main classes - Crime, Climate and Index. Other than drawing the map, Index reads the data files and the other two classes help create arrays of objects which contain the year, crime rates, types and climates for each state. The program uses Processing Libraries and another external library named Unfolding to create the visualization in the form of an applet. The shapes of the each state are read from GeoJSON files and their colors are based on ranges set in the total crime count.

Goals for Phase 3

We plan on improving the color coding of the states and add more interaction and filtering functions. We also plan on visualizing the climate data alongside the crime data and implementing a second node based view which visualizes the types of crime in more detail in each state.