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Progress Report

Natural Disasters and its effect in Housing Pricing in USA

In this project I am using two different datasets to do the analysis, the first one is the FEMA dataset which has all information we need about the disasters, like date of declaring, state, county name and some other information. I downloaded the FEMA data form “kaggle.com” in CSV format, the file has data since 1953, but in this project, I am going to use only the data from 2007-2017. The second dataset I am using is the Housing pricing dataset which has all the information we need about house pricing for each county in the USA per month since 1996, I also have the data in CSV format form Zillow website.

Before start working with the data, I need to join these two files together so I will have all the information I need in one place, and after that, I can do some data formatting and cleansing. To achieve that I loaded both files to MySQL DB to be easy for me to explore the data and do some data profiling and data dictionary for both files and. The FEMA dataset has a record count of 46186 after deleted all years not included in this project, I come up with 14138 records. For the Housing price data, I added one column to the data (Region) and assign correspondent states to each region (NW, NW, SW, SE) this will give more insight when it comes to the analysis. After the cleansing of the two datasets, I join them (left outer join) using state and county names, and I end up with one table has 14138 records.

The next step is to start to build the web interface template using HTML and CSS/JS and create different charts and visualization to represent the analysis, starting with high-level map of the US to see how the disaster data distributed among US states, and give the ability to drill down to see more  information on the county level. I am still didn't decides how will implement hat but most probably I will be using Tableau as it has more flexibility with mapping and drill-down functionality.