* Problem: Are there demographic indicators which predict future quantity and types of crime by neighborhood in Portland Oregon? Since extensive census demographic data is not collected with the same frequency as crime report data, are there demographic indicators involving diversity of race and household makeup by neighborhood which suggest trends in crime in the City of Portland Oregon?
* Client: City officials could use such data to support city planning and possibly. Moreover, if such indicators exist then unexpected crime data between the collection of broad census data could signal demographic changes.
* Data: The 2010 census data for the city of Portland given by neighborhood can be found at <https://www.portlandoregon.gov/civic/56897> while 2015 crime data by neighborhoods can be found at <https://www.portlandoregon.gov/police/71978> . Census data is downloadable as Excel spreadsheets while crime data is downloadable as text. Due to formatting, conversion into CSV seems to provide the easiest means of getting data a form which is easiest for processing.
* Analysis: Data must be preprocessed by extracting data/neighborhood tables for both data sets and merged into a single data set based neighborhoods. Crime data per neighborhood will be aggregated so that neighborhood crime rates violent crime rates may be compared with neighborhood proportions by age, race, and household types which include number of adults/children per home and home owned or rented status. As crime locations(lat./long.) are given, various features may be visualized geographically to look for clusters.
* Deliverables: The project will contain processed and preprocessed data as a CSV, a report with visualizations, findings, and conclusions as well as a slide deck for presentation.