**SER 594: SEMANTIC WEB PROJECT PROPOSAL**

**NEIGHBORHOOD SAFETY ANALYSER**

**Team Members & Roles:**

Prasanth Venugopal – Dataset1 ontology and RDF instance creation

Ejaz Saifudeen – Dataset2 ontology and RDF instance creation

Rajiv Prathapan – Dataset3 ontology and RDF instance creation

Sanjana Vasudevan – Dataset4 ontology and RDF instance creation

Everyone will take equal roles in UI Design, writing queries and testing of the application

**Project Description**

Generally, people tend to move to new cities and they must go about visiting different sites to know about the safety of the city in terms of fire, crimes, sanitation and natural calamities. This web application aims to be a one stop to know all that is needed to know about the safety of a neighborhood. Datasets are obtained from official US government sites and are linked in such a way that when a user queries for the safety of a neighborhood, all the relevant information is obtained.

**Literature Survey**

- https://www.crimereports.com/

-Uniform Crime Reporting https://ucr.fbi.gov/

-InciWeb: Incident Information System https://inciweb.nwcg.gov/

-Active Fire Mapping Program https://fsapps.nwcg.gov/

- National Fire Protection Association http://www.nfpa.org/news-and-research/fire-statistics-and-reports/fire-statistics/fires-in-the-us

- List of natural disasters in the United States https://en.wikipedia.org/wiki/List\_of\_natural\_disasters\_in\_the\_United\_States

- Datasets https://catalog.data.gov/dataset

-The international disasters database http://www.emdat.be/

**Project Plan**

8 th Oct 17 – Extract relevant data from datasets

15th Oct 17 – Develop semantic data model and ontology

25th Oct 17 – Generate RDF instances

4th Nov 17 – Upload RDF to triple stores

12th Nov 17 – Setup SparQL endpoint

25th Nov 17 – Develop semantic web app

27th Nov 17 – Testing and Documentation

**Data Sets & Sources**

Crimes committed in the US **-** <https://www.ucrdatatool.gov/>

Arson and Fire outbreak data - <https://www.usfa.fema.gov/data/nfirs/>

Natural hazards - <https://www.ngdc.noaa.gov/hazard/hazards.shtml>

Disease outbreak - <https://cloud.google.com/bigquery/public-data/usa-disease>