1. **Names of group members.**

   a. Timur Girgin

2. Application area is seismology.

   Research questions:

   1. Determine what fault line is the Earthquake part of

   2. Determine how much population is affected by the earthquake

3. What I want to do is to create an online interface with a map and a few graphs that will show earthquakes in the last 30 days using both R and PostGIS. I will then try to show the affected areas using a simple equation (found here). After having calculated the affected areas, I will determine using PostGIS functions how much population the earthquake will affect. I will also have try to determine which fault the Earthquake originated from (if from any).Earthquake data:

   http://earthquake.usgs.gov/earthquakes/feed/v1.0/

   Fault shapefile: http://earthquake.usgs.gov/hazards/qfaults/map/

   Global Administrative Areas shapefile: http://www.gadm.org/

   Population per counties census data:

   http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk

4. Creating an interactive map will give the possibility to visualize the data stored in a Postgres database, and using PostGIS I will be able to illustrate which areas are the most affected in the United States, which faults earthquakes are part of, and how much population is being affected by an Earthquake. The map will be accessible from a web browser.