

A one page guide to the CS621 project

Planning your “Geospatial Story” project

Step 1: Think about your idea. Choose your idea so that it is something that you are interested in. Remember, keep the idea simple – you have limited time to complete the project. Try to focus on spatial or geographical data.

Step 2: Search and gather data – use any available source to find data: OpenStreetMap, Open Data websites, ChatGPT, Google, international data exchange networks, and so on. Remember, you can create your own data (have a look at the How To videos to see how to do this with QGIS or GeoJSON.io). You are allowed to use simulated or generated data. The veracity of the data will not be checked. Remember, a small sample of data is fine. Don’t be concerned about accessing very large volumes of geospatial data.

Step 3: Select the data you need – begin data preparation and data cleaning. This is an important stage. This is where you need to import the data into PostGIS. The most likely way you will do this is via the PostgreSQL Dump File method. Try to practice this with other datasets. When the data is in the database, you can always DROP columns from the dataset if you do not need them. Remember, you won’t need to analyse a very large spatial area or very large amount of data.

Step 4: Formulate your SQL queries – a very important part of the CS621 project is that you have written your own SQL queries. Work carefully on your queries – make sure you save your SQL queries in a file as backup.

Step 5: Run your queries, do your analysis, draw maps – can you draw some conclusions or have you any outcomes? For every story, there should be an outcome or a result. Your project is almost finished now. Take some time to look at your queries and your output – are you happy with the outcomes? Is there a good “story” in this project?

Step 6: Prepare for the screencast – think of the story you want to tell. Look at the sample screencast. The best approach is to plan for the screencast. Don’t try to do the screencast without some planning. Think about this as a mini-lecture.

- What is your story about?
- What data did you acquire?
- What questions did you answer?
- What queries did you write?
- What are your conclusions or your observations?

Step 7: Create your screencast using the software of your choice. Make sure that the screencast is produced in MP4 format. You should also ensure that the screencast is between 5 minutes (min) and 7 minutes (max) long.