Sarah – Idea Generation

As we learned a bit about one another, it was interesting that we all migrated to North Carolina from varying locations. In addition, we have a few nature lovers and thought it would be interesting to explore what parks are in the Charlotte Metro area – what are their primary uses, how easy are they accessed, and what is the population near each of these parks.

Data was obtained through data.charlotte.gov, specifically the Parks file. To obtain the population, we identified a file from zipatlas.com, which included the population of the Charlotte Metro region by zip code. Regarding the population data – the most recent information on this site was from 2010. Although population grew by just over 20%, we opted to keep the data true to the source.

Beth will now talk about the database creation.

Beth – Database creation

We utilized Python/Pandas to pull in the 2 data sources, where we were able to merge the data into 1 dataframe through matching on zip code. There were a several fields that had no data or invaluable information, which were removed from our dataframe. As we were required to move this data into a database, all titles needed to be renamed before loading

We utilized Postgres to house our database. In the end our parks\_db included 3 tables. 1.) The parks table was created based upon the combination of parks information from Charlotte.gov and the zipatlas.com data as information within each record was closely related. 2.) The events table was used to capture key events obtained through web-scraping. And 3.) The zipcode-coord table was created based upon data obtained from the geoJson.

Within the database - the zipcode and parks tables can be connected by zipcode now that a look up for each coordinate was completed (use of <https://www.geocod.io/upload/>). This site was also used to lookup and pinpoint the coordinate location for each of the parks (by using address).

Luis will now talk about we connected to this database and discuss our landing page visual.

Luis – Flask connection /

Utilizing Flask, we were able to connect to the database to create our visuals. What you are seeing on the screen is our landing page. This interactive map shows the locations and different types of parks in the Charlotte metro area. As you will see we can zoom into any location – especially where more than one park was identified.

Lauren will now talk about the work she completed with designing the landing webpage.

Lauren – As you can we, we created a site where we included all of our visualizations somewhat like a dashboard.

Kurt will now talk about the final visualization.

Kurt – Median household income and park accessibility

At any point, the user can click on Charlotte Parks to bring them back to the main landing page.

Sarah will now talk about the bar chart

Lauren will now talk about the webscraping.

Thank you – are there any questions?

Short presentation:

Sarah – Idea generation

Beth – ETL

Luis – Flask connection

Lauren – HTML/web-page

Kurt – Leaflet/layer/overlays

Sarah – bar chart

Lauren – Webscraping