COVID-19 ANALYSIS FOR SOUTH CAROLINA STATE
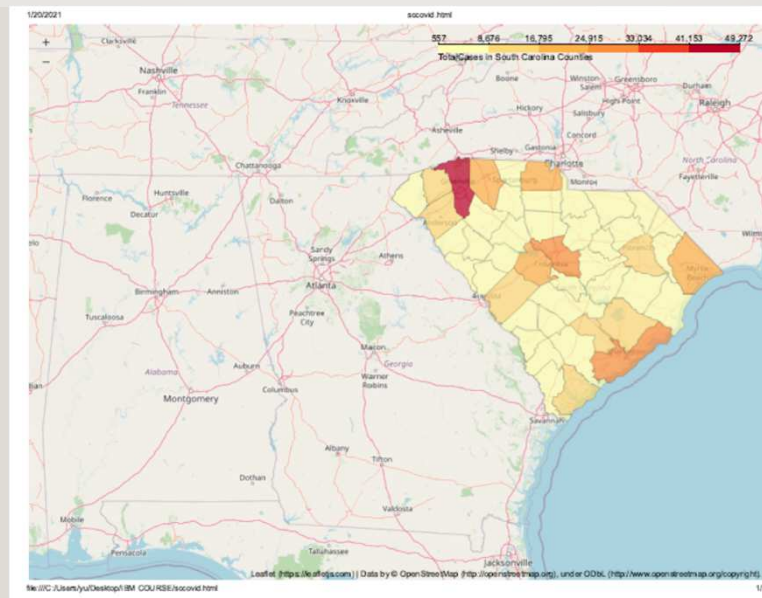
KEVIN YU

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BACKGROUND

- COVID-19 pandemic caused many illness and deaths of human. In the US, the situation is still very bad since the spread is not under control so far. Every state is fighting hard for the COVID-19 including the tracking and actively testing.

- In this project, we will follow the active cases daily and total cases for the South Carolina state. The data will be viewed through choropleth map to show the **hotspots** in the state. Then we will recommend the closest the clinic for the **testing**.

- This project will give the local community (our audience) visual information for the current Covid status. Also, this program can be scaled to small local area or other local communities based on the dataset.
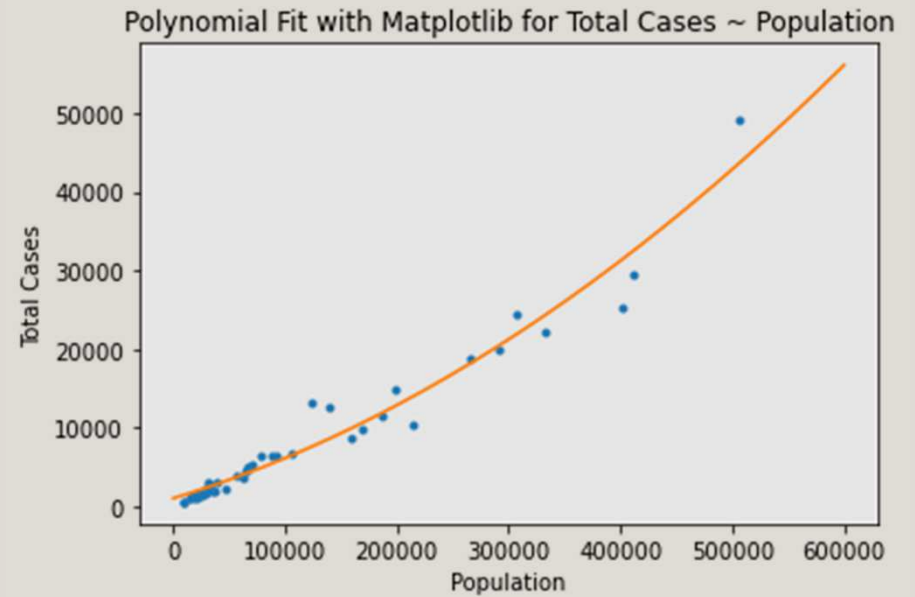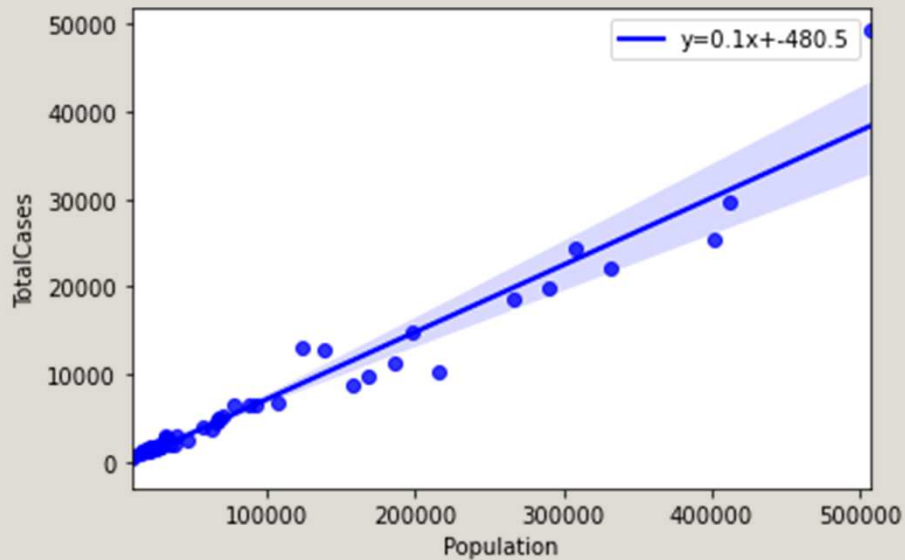
METHODOLOGY

- Exploratory data analysis was conducted to understand the COVID case distribution in the states. The **folium map with choropleth** to visualize the COVID **hotspot**, which is quick and direct way to show the audience. Then **linear regression** analysis was conducted to understand the relationship between total cases and the population. **Polynomial regression** was further tested to check which is a better fitting for the data.

- After the data analysis, **Foursquare API** was utilized for searching the COVID test places around hotspot area. The locations are displayed on the Folium map to help people find the closest places.
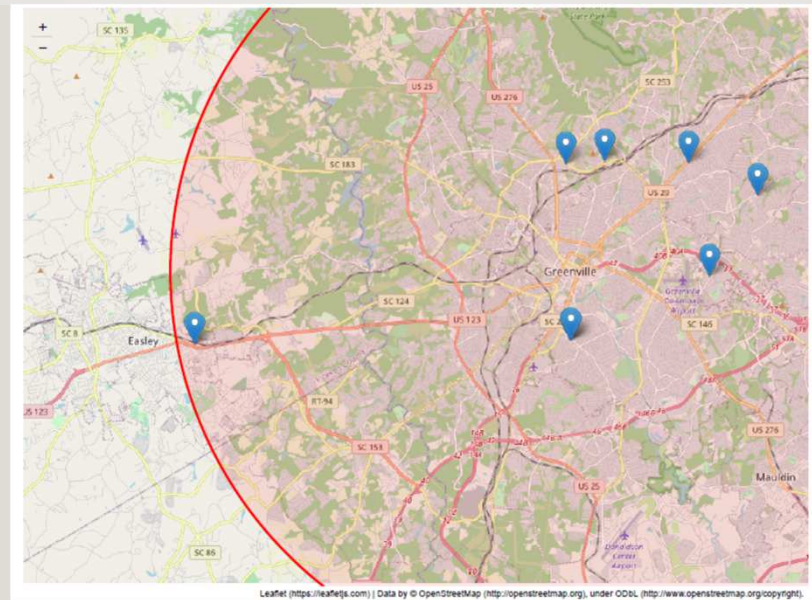
COVID CASES FOR EACH COUNTY

POLYNOMIAL FITTING IS BETTER

MAP OF URGENT CARE FOR COVID TEST

CONCLUSION

- We observed that the Greenville county is the Covid **hotspot** for the South Carolina County. There is a simple linear relation between the total cases versus the population. So far, we observed 10% infection rate in the state. Further data analysis, we observed that high population area has high infection rate compared to the lower population area. **Polynomial** fitting is better to show the hotspot area. Through **Foursquare API**, we can easily locate the covid test for the local community. This will be a very useful to show the visual info and give the suggestion or alarm to the local neighborhood.