Self assessment

**Database** has done by me and transfer the data to amazon.

* Store the static data for project on amazon bucket and postgres
* Include Quarries for tables and the join tables
* made connection string using SQLALchemy

I made a SQLALchemy connection to Amazon RDS and the data has transfred by a for loop and 1000 by 1000 that the make it easier to transferred.

**Visualization** has done by mealso has done by me on Jupiter notebook and the rest was mapped using mapbox ApI.

**Dashboard**

has made by me initially using the html to made it and add the mapping using the API key from map box.

* payout map Circle map that shows the amount payout divided by $20000 and it has a popup for each payment.
* used the precipitation and there is a drop down bottom for user to choose seeing it or not. the mapping code could be found under the app.js file and index1.html.

I was also made some Machine learning model with **Neural Network** and polynomial regression to help Wish Patel, the data scientist of the team. but she got better result and the NN model wasn’t promising at all.

Team assessment

On this project the huge data set and modeling it was a challenge, however transferring data to Amazon S3. Bucket and RDS using the postgres made it easier to work with google Colab and use data for a better model which not done in our group and could be better modeling using more data than just 3 years but since the data has merge in Jupyter notebook and not postgres from the begging so transferring was a challenge to our group member and we decided to move forward with 3 year only and that was a huge limitation. Also it would be better if one person where in charge of the data base that both made a data base and merging.

The machine learning part didn’t go as we expected and one of the reasons could be a short dataset.

We couldn’t successfully merge the Dashboard as single one to show both interactive elements and map. Because the initial dashboard and mapping has done by me and interactive element done by Hamed Hakimelahi using Flask. The conflict on the single dashboard folder, and we couldn’t fix it because of lack of communication. But overall it was amazing experience overall working with both team members and great to do a group project.

Summary of the project

For this project we gathered the data from FEMA dataset and NASA dataset and merge them to have payout and precipitation to model and predict the payout in case of flood.