* **Square:** The team member in the square role will be responsible for the repository.
* **Triangle:** The member in the triangle role will create a mockup of a machine learning model. This can even be a diagram that explains how it will work concurrently with the rest of the project steps.
* **Circle:** The member in the circle role will create a mockup of a database with a set of sample data, or even fabricated data. This will ensure the database will work seamlessly with the rest of the project.
* **X:** The member in the X role will decide which technologies will be used for each step of the project.

**Each team member revises the overall project workflow and update codes or logic wherever it is necessary and update team member on the next available meeting. For example, I shared codes that are look up for state codes after I resolved issue to reduce rework for other team members. greatest personal challenge over the course of the project was on** arranging meetings outside the class time. As we are part time students it was difficult to find a time that works for all team members. So, we decided to use mostly the office hours schedule and meet on other suitable day we found. However, whenever we meet with the available time we are focused and each team member will bring issues, each issue raised will be questioned, discussed, and decided based on mutual agreement. The other minor challenge is balancing work school and family, this challenge is very difficult to resolve need my family pay sacrifice.

Our team is composed of four team members. Each week on the two-hour class session we first discussed on updates from each team member such as what has been done, what impediments encountered and next plan of action. One member will share screen and we continue to discuss on pending question from database, machine learning, visualization, and business logic perspectives. We use Slack for corresponding thoughts and zoom for conducting meetings. The strength of our team raised from each members willingness to take an initial work item or continue work in progress. We use slack and email effectively, so we do not have as such challenges on communicating one for the other.

Summary

I worked on a project that analyze food access data from united states department of agriculture food access research to address questions such as what socioeconomic factors are associated with communities with limited food access. I used random forest supervised machine learning model for its better performance results compared to logistic regression and SVM. The dataset suffers from data imbalances and GradientBoostingClassifier applied to improve data imbalance and the study achieved accuracy score of 0.7.