**Deliverable 1**

What:

Using the country Guam as an example, we will look at the past climate data and future data projections based on precipitation and more. We can then predict how it would affect the country. Also, make suggestions on how they can cope with the changing climate.

How:

We will gather datasets from National Centers for Environmental Information

**Deliverable 2**

**OUR STORY**

As a group, we wanted to focus on a topic that would be of interest to everyone in the group. Our topic of interest became climate change because it can affect people, cities, and farming.

Using the country Guam as an example, we looked at past climate data based on temperature, precipitation, and more. We focused on Guam because it is a small island to zoom in on, but also because “the number of farms and land in farms more than doubled, and the value of agricultural production increased”( census,2017).

Our question for this project was whether we can predict climate data for Guam for the year 2024. Our hope is that we can predict how it would affect the country and make suggestions on how farmers can cope with the changing climate. As recommended by our instructor, we can use machine learning to analyze 10 years of Guam’s climate data and predict data for the year 2024.

According to the pacific farmer organizations, “ The farms of subsistence and small commercial producers are primarily located in the villages of Barrigada, Dededo, Merizo, Mangilao, and Yigo”.

Map

Description automatically generated

**Data**

Since most of the farm areas are around the international airport, weather data from that port was obtained. The data comes from the National Centers for Environmental Information National Oceanic and Atmospheric Administration (NOAA). We collected a total of 11 CSV files to analyze about 10 years of climate data for Guam. The data contains information about liquid precipitation, sea level pressure, temperatures, wind, atmospheric pressure, relative humidity and more.

**Database**

We are using PostgreSQL for this project.

7.1.5 Create ERDs

<https://www.quickdatabasediagrams.com/>

1. We need an Entity Relation Diagram (ERD)

2. A document describing the ERD (schema?)

3. Data used for testing

4. provide information on how many tables were created and a summary of the process.

**Model**

1. Machine learning model will be covered in class today:

Note: Analyze the input data and if the input data is labeled, choose a supervised learning model.

Analyze the output data and if the output of the model should predict a value or outcome, choose regression.

We need to answer:

Why did you choose this model?

How will you train the model?

What’s the accuracy of the model?

How does the model work?

If statistics are involved, which ones will the analysis include, and why?

What would you include or change if you had more time?

1. Choose an algorithm!

Ex. Linear regression.

1. Include a summary of the process.

**Visuals**

We will use Tableau for this project. We need the following:

1. Storyboard on Google Slide(s) ?
2. Description of the tool(s) that will be used to create final dashboard
3. Description of interactive element(s)
4. Include a summary of the process.