**Module 21 First Segment Project Deliverable**

Start Assignment

Congratulations! You’ve made it through Segment 1 of the project. You’ve already put in lots of work on this project—so now is the time to submit that work to your instructor and get the credit that you’ve earned. You’ll also get valuable feedback that will help you improve as you track to the final deliverable.

**Requirements for Segment 1**

Segment 1 is worth 33% of your overall grade for the Final Project.

Before you submit the Segment 1 deliverable, make sure that you have all the pieces in place by reviewing the requirements.

**Content (60 points)**

In this segment, the project deliverable includes the following:

* A detailed README.md file (20 points)
  + Creating and Working with a New Repository
    - <https://github.com/LouFoster/Class-Project_GroupC.git>
* At least four commits per team member (20 points)
  + Action Item for today’s class
* A database that stores at least two tables (or collections) for the project (20 points)
  + See Notes below

**Submitting the mock-up of the Database**

By this week's virtual class, your team needs to submit the mock-up of the database. The team should also submit the ERD, the document describing the ERD, and the data used for testing. Make sure to push all the database-related work to its own branch in the repository. Then submit a link to the repository branch, as explained earlier in this lesson.

**Our Group Status**

* Readme File is created
* Once each member can access each project member can add 4 “four” commits – meeting the 2nd requirement

Step 1: w.r.t. "Source a dataset or, if applicable, multiple datasets that will suit your needs." I looked thru Module 6 1. And found this example for “retrieving the following information from the API call:”

A picture containing diagram

Description automatically generated

**Adam:**

If you would walk us through

* the API Call
* Collecting the Data
* Cleaning the data

Based on these above actions, I believe we should meet the requirement for Data Collection /Data Base Requirement

**Christian**

if you could walk us thru the DataBase cleaning and I will capture screenshots of that

I will capture screenshots for our presentations …

Based on these above actions, I believe we should meet the requirement for Data Collection /Data Base Requirement

**Step 2:**

Re think if we can revise our hypothesis “instead of looking at the Southern & Northern Hemisphere” INSTEAD let’s consider looking at the data via random cities and or locations

This may give up an opportunity to meet the requirement

* Tom … let walk thru the World city data … we may have to recreate the above steps for the cities database

**Presentation (40 points)**

In this segment, the presentation deliverable includes the following:

* The selected topic and the reasoning for that selection (20 points)
* A description of the data (20 points)
* The questions that the team plans to answer with the project (20 points)

During this early phase, focus on outlining and documenting your ideas, questions, and data. You don’t need to have a slide deck at this point. If the team feels more comfortable outlining this information in the README.md file, that’s perfectly acceptable. This kind of documentation and outline is critical not only for the final presentation but also to organize and align all the team members on the goals and deadlines of the project.

**Weather Tracking to investigate Air Quality in Multiple Cities**

data source

* weather data <https://openweathermap.org/api/air-pollution>
* Population Data: Tom Action Item
* Check out Kaggle

**Overview**

This project will focus on data analysis of air quality in a variety of cities throughout the world. Our sample database consists of cities chosen at random.

**Proposed Cites to include for this Project.**

Northern Hemisphere (need to get 50 cities)

* (Country) Bangladesh, (City) Dhaka
* (Country) Great Britain, (City) London,

Southern Hemisphere

* (Country) Brazil, (City) Rio
* (Country) Africa (City) Kamplaa

**Project Hypothesis**

* cities with larger populations have lower air quality countries
* track air quality at certain times of the year
  + Summertime is the worst, no matter where you are
  + Reports on Years vs Air Quality in both Southern and Northern Hemispheres
* Does the country have air quality standards laws, rules, or regulations?

Game Plan

* Ping API to Obtain Air Quality
* Manually look up lat and lng for cities
* Save to dictionary
* Convert to dataframe
* Import into a database
* Visualization
* Machine Learning

air quality standards as per https://openweathermap.org/api/air-pollution

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**ERD v1 (2023.03.31)**

Graphical user interface, application

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