Project Title	Food Environment Atlas
Technologies	Business Intelligence
Domain	Agriculture
Project Difficulties level	Advanced

Problem Statement:

With the pandemic we all realized the importance of managing the supply to provide necessary supplies for everyone.

Indicator: Population, low access to store

Geographic level: County

Definition: Number of people in a county living more than 1 mile from a supermarket, supercenter or large grocery store if in an urban area, or more than 10 miles from a supermarket or large grocery store if in a rural area.

Data sources: Data are from the 2012 report, Access to Affordable and Nutritious Food: Updated Estimates of Distances to Supermarkets Using 2010 Data. In this report, a directory of supermarkets, supercenters and large grocery stores within the United States, including Alaska and Hawaii, was derived from merging the 2010 STARS directory of stores authorized to accept SNAP benefits and the 2010 Trade Dimensions TDLinx directory of stores. Stores met the definition of a supermarket, supercenter, or large grocery store if they reported at least $2 million in annual sales and contained all the major food departments found in a traditional supermarket, including fresh meat and poultry, dairy, dry and packaged foods, and frozen foods. The combined list of supermarkets and large grocery stores was converted into a GIS-usable format by geocoding the street address into store-point locations. Population data are reported at the block level from the 2010 Census of Population and Housing. These population data were aerially allocated down to ½-kilometer-square grids across the United States. For each ½-kilometer-square grid cell, the distance was calculated from its geographic center to the center of the grid cell with the nearest supermarket. Rural or urban status is designated by the Census Bureau's Urban Area definition.

Rest of the indicators are mentioned in the documentation.pdf file

Description: The United States Department of Agriculture (USDA) Food Environment Atlas (211 variables)
The current version of the Food Environment Atlas has 211 variables, including new indicators on store availability; restaurant availability and expenditures; participants in the SNAP Program, the National School Lunch Program (NSLP), School Breakfast Program (SBP), Summer Food Service Program (SFSP), Child and Adult Care Food Program (CACFP), and the WIC Program; adult obesity rate for 2013; recreation and fitness facilities; and persistent-child-poverty counties.

--Note your findings
--Create views
--Build Dashboards
--Make a Story

Dataset:

Datasets is available in the given link. You can download as per your convenient.

https://drive.google.com/drive/folders/15wgvrFrKe7wI1z4a-0QXA9pjIxmim5PY?usp=sharing

Approaches:

Python, R, Tableau, Power BI or you can use any tools and techniques as per your convenience. We would appreciate your valid imagination in finding solutions

Project Evaluation metrics:

Code: As per the requirements

- You are supposed to write a code in a modular fashion
- Safe: It can be used without causing harm.
- Testable: It can be tested at the code level.
- Maintainable: It can be maintained, even as your codebase grows.
- Portable: It works the same in every environment (operating system)
- You have to maintain your code on GitHub.
- You have to keep your GitHub repo public so that anyone can check your code.
- Proper readme file you have to maintain for any project development.
- You should include basic workflow and execution of the entire project in the readme file on GitHub
- Follow the coding standards: https://www.python.org/dev/peps/pep-0008/

Database:

- You are supposed to use a given dataset for this project.

https://drive.google.com/drive/folders/15wgvrFrKe7wI1z4a-0QXA9pjIxmim5PY?usp=sharing

Submission requirements:

High-level Document:

You have to create a high-level document design for your project. You can reference the HLD form below the link.

Demo link:

HLD Document Link

Low-level document:

You have to create a Low-level document design for your project; you can refer to the LLD from the below link.

Demo link:

Low Level Design Sample document link

Architecture:

You have to create an Architecture document design for your project; you can refer to the Architecture from the below link.

Demo Link:

Architecture Document Link

Wireframe:

You have to create a Wireframe document design for your project; refer to the Wireframe from the below link.

Demo link

Click here to enter text.

Wire-frame link

Project work:

You will have to share the Tableau Public Link of your work

You have to submit your code GitHub repo in your dashboard when the final submission of your project.

Demo link

Project code sample link :

Detail project report:

You have to create a detailed project report and submit that document as per the given sample.

Demo link

DPR sample link

Project demo video:

You have to record a project demo video for at least 5 Minutes and submit that link as per the given demo.

Demo link

Project sample link :

The project LinkedIn a post:

You have to post your project detail on LinkedIn and submit that post link in your dashboard in your respective field.

Demo link

Linkedin post sample link :

Click here to enter text.

Click here to enter text.