



# **FOOD DESERTS & THEIR EFFECTS** ON COMMUNITY HEALTH

By: Derrick Nyagesuka, Justin Smith, Niya Shannon, and  
Tabitha Wallace





# About The Project

## WHO/WHAT/WHY

Group 1 knew we wanted to work with the topic of food deserts. Given the time limit on the project, we narrowed the scope down to our current topic as it deals with an important subject but was manageable in the time period we had.

We pulled our data from a multi-year long study from the USDA about food access in the US. We hope to use that data to find out how living in a food desert affects the obesity mortality rate in various counties in the US.



# Data Exploration

## INITIAL LOOKOVER

Looked over selected data to see information it presented

1

2

## ADDED DATA

Added new data sets that were a better match

3

4

## COLUMN SELECTION

Filtered data set columns down by relevancy

5

## NULL VALUES

Eliminated some data sets because of excessive null values

## TARGET PICKED

Spent time with Kevin picking a target value





# Data Analysis

FEATURE ENGINEERING

Averaged data results from two different years, used Standardized Scaler

1

MODEL SELECTION

Chose to use Random Forest Regressor model

2

EDA

Changed target feature to obesity rate when training scores were too low for diabetes.

3

4

SUMMARY

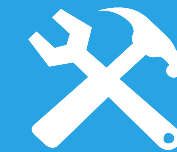
Found five factors that heavily influenced obesity mortality rate, the biggest one being expenditure per capita at full service restaurants

# Dashboard Info



## INTERACTIVE ELEMENTS

Users can interact on Tab 3. They'll be able to select values from a drop down menu and slider scales to find how the obesity mortality rate in their county would change if there were some changes..



## TOOLS USED

For now we're going to use Javascript, Python, Plotly, and VSCode. We might use more in the future.

# Dashboard Layout

HOMEPAGE (TAB 1)

## Project Title

TAB 1

TAB 2

TAB 3

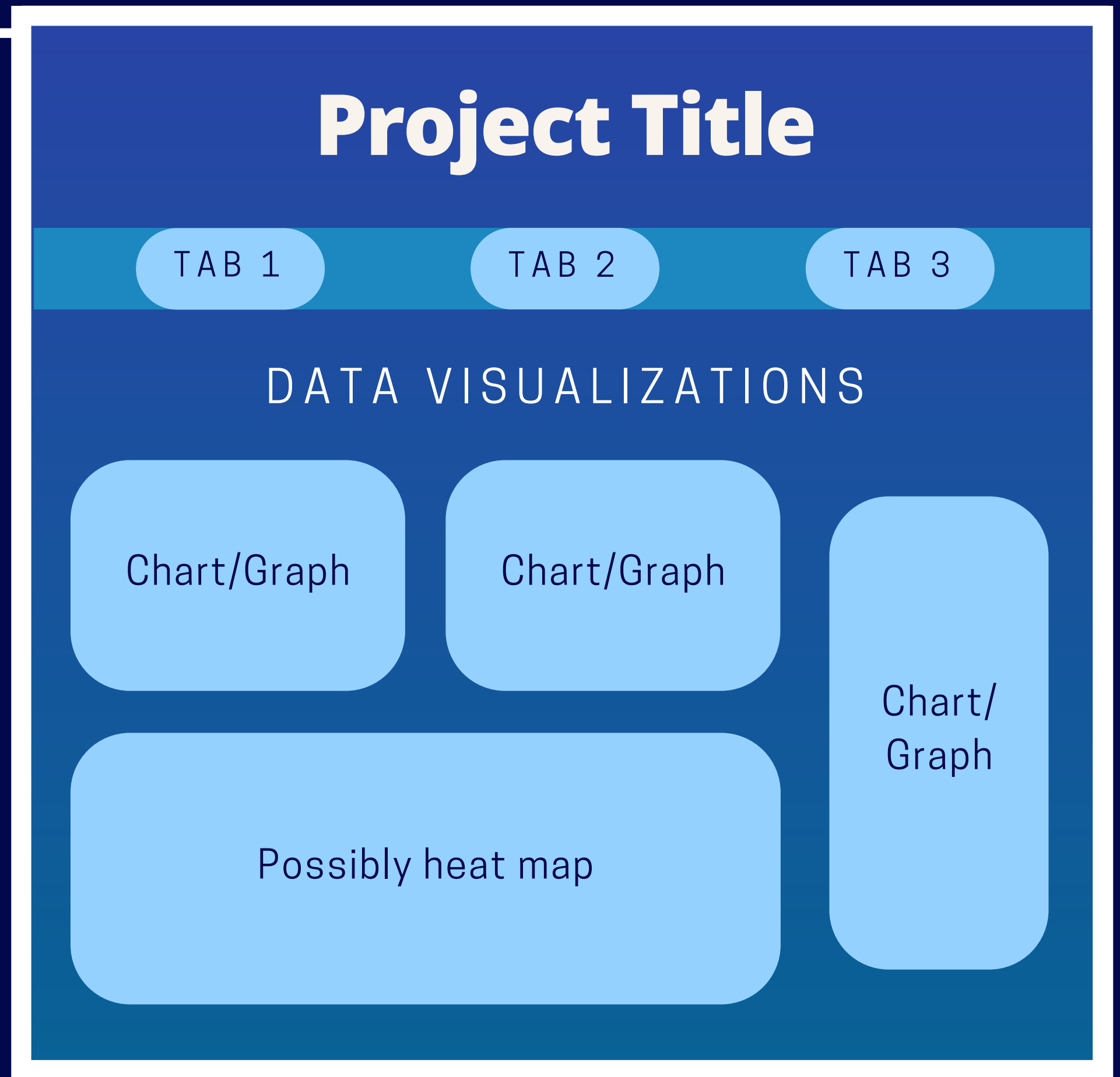
ABOUT THE  
PROJECT

Project Description

Link to repository

# Dashboard Layout

VISUALIZATIONS  
(TAB 2)



# Dashboard Layout

INTERACTIVE (TAB 3)

## Project Title

TAB 1

TAB 2

TAB 3

HOW DO FOOD DESERTS  
AFFECT OBESITY MORTALITY  
IN YOUR COUNTY?

User Input

Output