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# Final Project

milestone 2

## Project Title

*Dietary Decisions: Unveiling the Global Impact of Sugar and Meat Consumption on Longevity*

## Project Overview

My final project, I aim to uncover how different diets impact health across the world. Using interactive maps and trend graphs, I will show the relationship between sugar and meat consumption and life expectancy in various countries. This document outlines the goal and motivation of my project, intended use case, the data sources I will be using, and the design of the visualizations.

## Goal & Motivation

***Goal***

My main goal with this project is to create an engaging interactive visualization that highlights the correlation between sugar and meat consumption and life expectancy around the globe. I plan to present a clear picture of how these dietary choices are linked to longevity, allowing us to spot trends and outliers that could tell us more about our health.

***Motivation***

This project sprang from my own growing interest in healthy eating and my curiosity about how different foods affect our health. Recently, I started paying more attention to what I eat each day, sparking a broader interest in dietary trends worldwide. As I delved into research, it became clear that sugar and meat play complex roles in our health, influencing everything from obesity rates to life expectancy.

Focusing on these foods, I want to share insights on how they might shorten or extend our lives. It's important to understand these connections because making informed choices about our diet can lead to better health outcomes. With this project, I hope to offer a tool that helps people see these relationships with clear, visual evidence.

## Intended Use Case

The primary audience for this project includes health enthusiasts, students, and academic researchers who are interested in the effects of dietary habits on health. These visualizations are designed to be accessible and informative for anyone curious about the nutritional impacts of their food choices, making the data particularly useful for educational purposes.

Health enthusiasts can use these visualizations to see how common elements in our diets, such as sugar and meat, might impact our lifespan. This can help us make better dietary choices. For students and teachers, these tools offer a practical way to explore and discuss global health trends, which can enhance learning in nutrition and public health courses. Researchers might find the visualizations useful for supporting broader studies on diet and health, providing a solid foundation for new inquiries or confirming existing theories. Ultimately, my goal is to help raise awareness about public health and encourage more informed discussions about nutrition and longevity.

## Data Sources

I've gathered several datasets that cover sugar and meat consumption, as well as life expectancy stats from around the world. Here's what I'm using:

1. ”Sugar: World Production, Consumption, and Trade" gives a detailed look at how much sugar is consumed in different countries.

2. "World Sugar Dataset 2018 - 2024" provides both recent and projected data on sugar consumption.

3. "Worldwide Meat Consumption" shows how meat consumption varies globally.

4. "Life Expectancy (WHO)" compiles data on how long people live in different countries, according to the World Health Organization.

I found all these datasets on Kaggle, which is the world's largest data science community with reliable resources and datasets.

## Visualization Design

***Visualization #1: Interactive World Map***

The main feature of my visualization is an interactive world map equipped with a Dual-Layer Toggle. This map will display data on meat consumption and life expectancy across various

countries. Users can switch between two different color-coded layers with ease: one representing meat consumption and the other showing life expectancy. Each layer will use its own distinct color scale to help visually differentiate the data and allow for a clear comparative analysis at the click of a button.

To enhance user engagement, I will also include a slider that allows viewers to select different years, observing how meat consumption and life expectancy have changed over time. This temporal exploration can provide valuable insights into long-term health trends globally.

***Visualization #2: Trend Graphs for Sugar Consumption***

The second visualization will concentrate on sugar consumption and its relationship with life expectancy in different countries. Given that this dataset includes fewer countries, I'll use a more detailed graph approach to make the most of the available data. This visualization will also feature a time slider, enabling users to explore data across various years. By plotting life expectancy against sugar consumption, users can interact with the graph to see how these two variables correlate over time and identify patterns or outliers among the included nations.