Proposal

Data Analytics Bootcamp
Group 4
Project 1
Proposal

Five Year Change in Cost of Eggs Analysis

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Project Repo:
https://github.com/country4livin/Project-1-Repo

01

EXECUTIVE SUMMARY

Analyze the change over a 5-year period in the cost of eggs in the United States.

Overview
The cost of eggs has been a frequent news headline in the last five years. Authors will perform an analysis on the change in cost of eggs per quarter from January of 2019 to December 31st of 2024.

Key Questions
This analysis seeks to identify repeated trends over the time span. Does the cost change seasonally? Are spikes in the cost of eggs localized to a specific region? How does the cost of organic eggs compare to conventionally raised eggs? Have there been spikes in Bird Flu that correspond with the spikes in the cost of eggs?

Exclusions
This analysis does not explore the impact of global supply chain disruptions, labor shortages, or other external factors.

02

Data Source and Tools

Project 1: Five Year Change in Cost of Eggs Analysis is a collaborative effort. Authors will work together to analyze and create a presentation using the data sources and tools listed below.

- The USDA provides publicly available data on the prices and sales information of farm products. A CSV file for the specified time period is available.

- The CDC provides a CSV file with the incidences of bird flu reported throughout the US.

- Use GitHub to share information.

- Use Pandas to create dataframes and analyze data.

- Use GoogleDocs to create a proposal and presentation.

03 Analysis

Using data from the USDA, create a Pandas dataframe to complete the following:

- Group data by fiscal quarter and create a bar graph to quickly identify spikes in the cost of eggs. Identify trends.

- Group data by conventional versus organically raised. Create a bar graph for each type. Is there a difference?

- Group data by region. Are spikes in cost localized to a specific region?

- Create a separate data frame and bar graph to identify peaks in the outbreak of Bird Flu. Is there a correlation between the peaks in Bird Flu and the cost of eggs consistently throughout the last five years?

04 Presentation

Create a Google Doc with the information listed in Analysis.

- What trends can be found in the data grouped by fiscal quarter?

- Is there a difference in the cost of eggs by region?

- Is there a difference in the cost of eggs by season?

- Do peaks in the outbreak of Bird Flu correspond to the peaks in the cost of eggs? Use Pandas mapping library to create a map of the United States that shows the reports of Bird Flu. Set the size of the dot to the number of reports.