Analyzing US Food Import Content
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**INTRODUCTION**
- Why does the US, a country with an abundance of resources and exceptional diverse economy, need to import food from other countries?
- Importing of food items is harmful to local market

**METHODOLOGY**

**Dataset**
- Dataset obtained from Department of Agriculture belongs to data.gov
- Contains import values of products ranging from crops to oilseeds and even different beverages

**Dimensionality Reduction**
- 18 food groups along with their subgroups were categorized into perishable, semi-perishable and non-perishable food items and 64 countries grouped into continents

**RESULTS**

**Inflation**
- Inflation is a cause of excess demand while dealing with a closed economy situation while in an open economy case inflation is influenced by overseas trading

**Country Rankings for US import**
- Which continent & country does the United States imports maximum food products from

**Beverage Analysis**
- Combination of alcoholic drinks such as malt beer, wine and different liquors and liqueurs as well as non-alcoholic drinks which included water and other liquids which can be imbibed liquids, unsweetened and sweetened drinks, such as soft drinks

**TIME SERIES IMPLEMENTATION**

Time series describe how past events affect the future ones & help forecast succeeding values

**Data Preprocessing**
- The total amount is the total import amount for a particular food group like perishable, semi-perishable and non-perishable. Similarly, the date attribute is the year

**Time Series Object**
- An interactive plot for time series data was used to created a plot for year-wise import food for each continent

**Decomposition of Data**
- Contains the seasonality, trend and random noise

**Applying model and forecast**
- Forecasts produced using exponential smoothing methods are weighted averages of past observations, with the weights decaying exponentially as the observations get older
- The Holt-Winters method is advisable for seasonal time series prediction and comprises of the forecast equation and three smoothing parameters - alpha, beta, and gamma.

**Results**
- We plot the results which the model predicted from the year 2015 to 2017 along with the original values

**Import per continent**

**Predicted Values**
- Total import amount invested per year
- Inflation per food-item

**Imported Food cleaned dataset**
- Time Series
- Predictions regarding imports

**Analysis Performed**
- Input Output Flow

**Cleaned Dataset**
- Decomposition of Time Series Data

**Time Series Object**
- Year-wise perishable food import for each continent

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