M5 Forecasting

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Objective of M5 Forecasting

- Anticipate daily sales for the following **28 days** using hierarchical sales data from Walmart
- The data comprises item level, department, product categories, and store details for stores in three US states (California, Texas, and Wisconsin).
- There are **30,049 units of product** in the data and we have used 90 units from it to show the forecast.

Data description

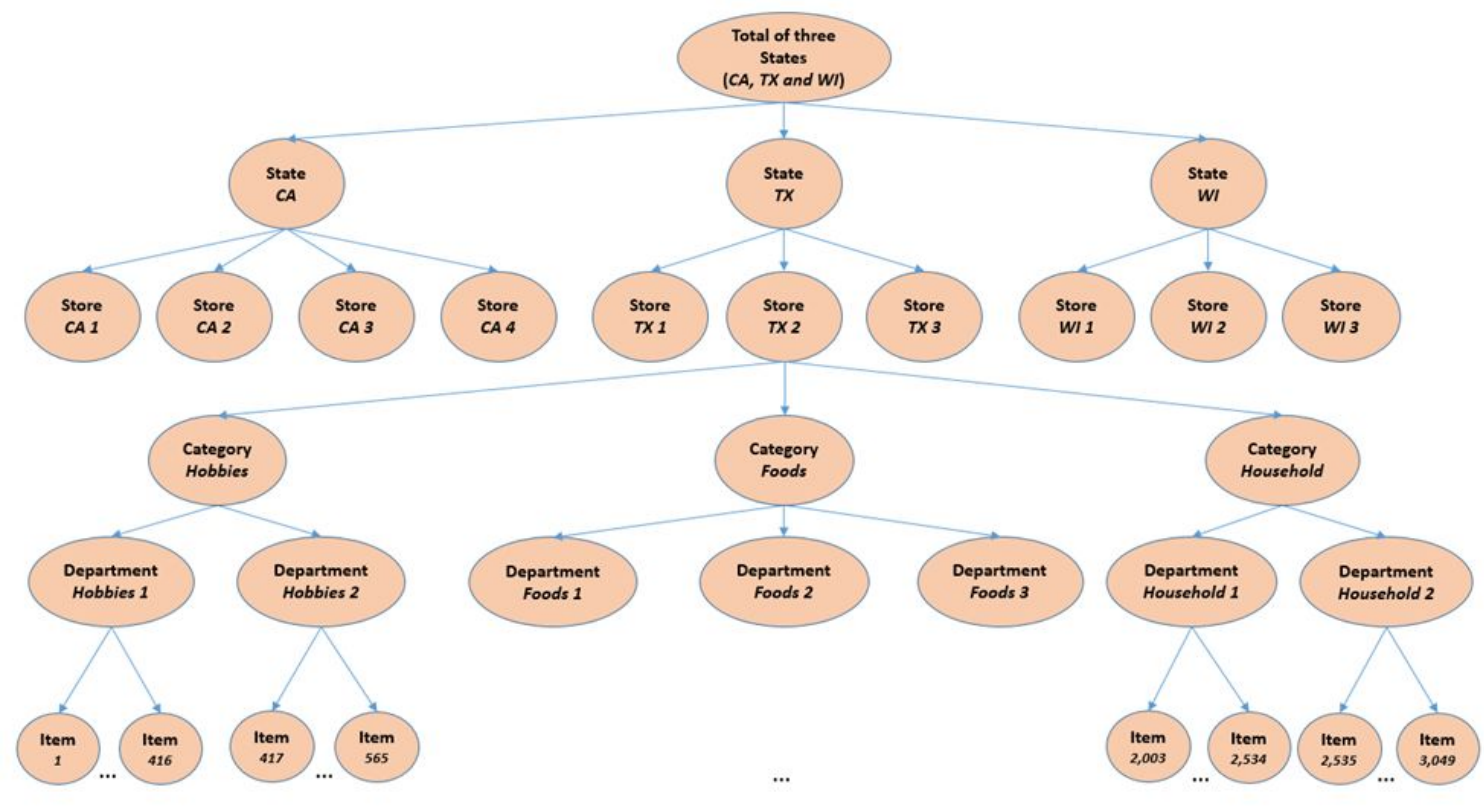
Calendar.csv: This file contains information on when products are sold and what **events and programs are scheduled** for that day.

Sales train evaluation.csv : This file contains daily unit sales of each product in each store from the first day to the last **day of 1941.**

Sales train validation.csv: This file contains daily unit sales for each product in each store from the first day to the last **day of 1913.**

Sell prices.csv: This file contains information on the **prices** of products in each store for each week.

Data description



Data description

Level id	Aggregation Level	Number of series
1	Unit sales of all products, aggregated for all stores/states	1
2	Unit sales of all products, aggregated for each State	3
3	Unit sales of all products, aggregated for each store	10
4	Unit sales of all products, aggregated for each category	3
5	Unit sales of all products, aggregated for each department	7
6	Unit sales of all products, aggregated for each State and category	9
7	Unit sales of all products, aggregated for each State and department	21
8	Unit sales of all products, aggregated for each store and category	30
9	Unit sales of all products, aggregated for each store and department	70
10	Unit sales of product *x*, aggregated for all stores/states	3,049
11	Unit sales of product *x*, aggregated for each State	9,147
12	Unit sales of product *x*, aggregated for each store	30,490

Using model

- Simple Moving Averages Model (SMA)
- Exponential Weighted Moving Average (EWMA)
- Exponential Smoothing Model
- Double Exponential Smoothing Model
- Triple Exponential Smoothing Model

Thanks!

Do you have any questions?