Task

Please open Excel file with data and data dictionary.

About data:

Our customer is a large beverages producer. The file contains historical weekly sales quantity, sales value, price and promotion data for beer products (stock keeping units - SKUs) within 1 retail megastore for 7 years.

- there are 98 different products (SKUs)
- promotion data includes 3 types of in-store promotions: promo price, promo displays and catalogs. The promotions are expected to increase sales (but not guaranteed). The latter 2 types also have different sub-types as defined in the dictionary
- the raw data has been pre-processed so there is no need for data cleaning step
- we also collected information on significant holiday events as the sales may increase/decrease on or around them

The goal:

- come up with the best model for demand prediction (for sales quantity)

Additional information:

- please provide preferred model for demand forecast for a subset of SKUs (5-10 of them, at your choice)
- feel free to construct additional features from the variables provided if it helps
- you don't need to use all provided features
- this is generally time series problem
- ideally we would like to obtain also a measure of price elasticity (sensitivity of sales to a measure of price change for a given SKU) within the forecasting model
- please send us the results as a Jupyter notebook or in your preferred format