Senior Data Scientist Assignment Brief

This assignment is provided as a way to explore the price elasticity techniques for the attached dataset (assignment.csv) and then advise business based on elasticities of the items (sku_cde).

You are given 2 years of weekly item sales data, and asked to create a presentation/report that would advise business based on the findings from the price elasticity of the items.

In your presentation/report, you should include what you understand by price elasticity of demand and interpret the calculated price elasticity of the items based on the statistical techniques you applied. For example: Is sku_cde (A) Elastic or Inelastic for promo and regular demand? Should we increase or decrease the prices based on the elasticities (promo and regular) of the items?

Bonus: Create a Vertex AI pipeline for price elasticity (regular and promo) using kfp components.

Data Fields

date_week - Date of the sale data.
sku_cde - Item ID
sales - Number of items sold at a particular store on a particular date.
cost_price - Cost price of the item
regular_price - Selling price of the item
regular_volume - Quantity sold at regular price
promo_price - DIscount Price of the item
promo_volume - Quantity sold at promo price