



Rules

1. There is no time limit to this test. Ideally it shall be given 12 hours.
2. How fast you revert to this will matter in selection.
3. Please create a zip folder with all the files neatly labeled and send it on career@begenuin.com with a subject line "GECG Data Science Round 2022 - <your full name>"
4. There is no mandatory format for the end deliverable. You should be able to make us understand the analysis with whatever method you prefer. You can use DOC, PPT, etc anything you prefer. Or maybe a combination of multiple formats.
5. In your email include these details:
 - a. Full Name
 - b. Enrollment Number
 - c. Phone Number
 - d. Branch and Semester

Problem Statement

Conglomerate Inc. is a company which operates multiple brands under its umbrella that range from servicing Baby, Food & Beverages, and Electronics items. They are looking to run promotional campaigns on Amazon and want to understand the effect of price elasticity for their categories. They have decided to run a pilot with a company XYZ for three categories: diapers, **breakfast cereals**, and **headphones** to understand their promotional strategy better.

You have been given the data across three different categories (Diapers, Headphones, and Breakfast Cereals) from 2017 to 2019. The data set contains information about daily price and sales on Amazon at the Item level (ASIN, Category, Date, Price, Units Sold).

Conglomerate Inc is looking to understand the following things as an outcome of this pilot.



1. Quantify the impact of price on product demand for different products and product categories. Also, Identify and quantify the factors other than price that have an impact on product demand?
2. Interpret the data and present a consumer behavior reasoning behind the patterns that you are seeing.

Requirement

As a Data Scientist on the project, we expect you to perform a detailed analysis that is grounded in statistics to make your findings and answer the above questions. We will be evaluating your submission under the following criterion:

1. Ability to mine the data and present all key findings.
2. Usage of methodologies grounded in statistics to reach your findings.
3. Executive readiness and presentability of your supporting document to customers.
4. Tell a story using the consumer behavior that supports your finding.

You can download the dataset from this link:

Link - https://drive.google.com/file/d/1XtyqEz0uvDqe7ovLORCuOwtMH5_-Rqe7/view

The data is a tab-separated file where each line contains the price and sales of a product for the day. The fields in the file are <Item ID, Category, Date, Average Price, Units Sold>.

***Please do not share the data or post this file on the internet. You are expected to delete the data file after your submission.**