

Case Study Project – Office Supplies

This document provides all the details you need to complete the case study. We recommend you read this document carefully before you get started.

Company Background

Pens & Printers is a national office supplies chain. At the moment, they send office supplies out of warehouses in four regions: East, West, South, and Central, and all four warehouses stock the same products. The Head of Sales thinks this leads to large amounts of unsold products in some locations.

Customer Question

The management would like you to answer the following:

- Are there products that do not sell as well in some locations?
- Are there any other patterns over time in each region that you can find in the data?

Dataset

You can download the data from [here](#). You can use any tools that you wish to analyze the data and create your presentation. The dataset has the following columns:

Column name	Details
Order ID	Character. Unique identifier for the individual order.
Order Date	Character. Date of the order, in format YYYY-MM-DD.
Ship Mode	Character. The method used to send out the order.
Region	Character. The region the order was sent from.
Product ID	Character. Unique identifier of the product ordered.
Category	Character. Category of the product, one of 'Office Supplies', 'Furniture', or 'Technology'.
Sub-Category	Character. Subcategory of the product (e.g. Binders, Paper, etc.)
Product Name	Character. The name of the product.
Sales	Numeric. Total value of the products sold in the order.
Quantity	Numeric. Quantity of the products in the order.

Discount	Numeric. Discount of the order in decimal form. (e.g. 0.30 indicates the order has a 30% discount, etc.)
Profit	Numeric. Profit of the order.

Submission Requirements

1. You are going to deliver an oral presentation to summarize the analysis you have performed and your findings. You should prepare up to 8 slides to present to the non-technical customer. The task list below describes what they expect to see in the presentation.
2. You can use any tools you want to do your analysis and create visualizations.
3. You must use the data we provide for the analysis.
4. Your presentation must be no longer than 10 minutes.

Task List – Oral Presentation

Your presentation must be no longer than 8 slides plus a title slide. You should not present for longer than 10 minutes.

Your presentation should be targetted at the non-technical customer who requested the work you have completed.

The presentation should include:

- An overview of the project and business goals
- Your key findings including visualizations to support those findings
- An overview of how your findings answer the customer questions
- Your recommendations to the business for future work

Grading

Before delivering your oral presentation, remember to check your work against the following grading criteria. You must pass all criteria to pass this part of the certification.

Domain	Description	Sufficient	Insufficient
Data Visualization	Create data visualizations to demonstrate the characteristics of data and represent	Has created at least two different visualizations of single variables (e.g. histogram, bar chart,	Has used the same visualization throughout. Has not included graphics to represent

	relationships between features.	<p>single boxplot)</p> <p>Has created at least one visualization including two or more variables (e.g. scatterplot, filled barchart, multiple boxplots)</p> <p>Has used visualizations that support the findings being presented</p>	<p>single variables and relationships.</p> <p>Has not used visualizations that support the findings being presented.</p>
Business Focus	Collects relevant information, detects patterns, observes and interprets data	<p>Has described at least one of the business goals of the project</p> <p>Has explained how their work has addressed the business problem</p> <p>Has provided at least one recommendation for future action to be taken based on the outcome of the work done</p>	<p>Has not identified any business goals</p> <p>Has not explained how their work has addressed the business problem</p> <p>Has not provided any recommendations for future actions</p>
Communication	Employs multiple tactics (written and verbal) to communicate to business leaders	Has delivered a verbal presentation addressing the business goals, outcomes and recommendations	Has not delivered a verbal presentation or delivers a presentation that does not mention the goals, outcomes or recommendations.