



Simple Analytics

PowerBI Case Competition

2024



Introduction

Monday Office Supplies is an online-only retailer providing office stationery and electronics to their customers. They use an online POS system which is integrated with their website where customers can order stationery supplies. The data is stored within a SQL database and have been using this system for 4 years. The business is looking to enter a new phase of growth and wants to leverage its data.

Deliverables

1. **Power BI Sales dashboard:** The business would like a Power BI report to understand sales and profitability by product, customer and region.
2. **Sales forecasting:** They are interested in a 6-month sales forecast that they can monitor daily.
3. **Market basket analysis:** The business wants to improve its website and deploy a recommendation engine. The engine would provide further cross-selling opportunities by recommending its customers other products to buy based on their current basket.

Key outcomes

- Connect to the dataset using power query / apply transformations as required
- Model the data using the dimensional modeling methodology
- Visualize current sales/profit trends
- Product key insights on sales by product, product category, customer, returns
- **Option 1:** Using Python or R - Generate a sales forecast (choose a relevant regression model)
- **Option 2:** Using Python or R - Basket Analysis - visualize a recommendation engine where common products were sold based on a selection of a product)

Bonus Question

Provide an architecture diagram for deploying the report as an end-to-end solution

Tip

Come along to the Advanced PowerBI workshop on the 22nd August run by Jackie, the founder of Simple Analytics. On the night, Jackie will run through simple steps on how to build a PowerBI dashboard and how to tackle the optional key outcomes.

Note: It is not compulsory to attend the Advanced PowerBI workshop to succeed, but it is highly recommended!



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Presentation Day

After submissions close, we will select finalist groups to participate in the final Simple Analytics case competition challenge! You are expected to present the Key Outcomes, as outlined in the previous page, to a panel of judges and the founder of Simple Analytics.

The judges are also looking for:

1. Insights presented
2. Look and feel of the dashboard
3. Build quality
4. Overall presentation & teamwork

Presentation day details:

- Date: 19th September
- Time: TBC
- Further details will be released after submissions close

Submission Instructions

Email your finished dashboard to uoadsc@gmail.com, by **11:59 pm 8th September 2024**.
Please name your file as the team name.

Please put this as the email subject: PowerBI case competition [team name]

Include in the email body:

- Your team name
- All team member names
- UPI of all team members

Assistance Office Hour

- Date: August 28th
- Time: 10-11 am
- Online meeting link will be released closer to the day
- Run by the founder of Simple Analytics (Jackie Teiwani) to answer questions on deliverables
- Also a chance to ask DSC about submission/presentation day logistics

Support

- For all questions regarding group allocation or unresponsive group members email uoa.biztech@gmail.com
- For all other questions email uoadsc@gmail.com



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Timeline

Event	Dates
Sign ups close	16th Aug
Group allocations released	19th Aug
Data set released	21st Aug
Launch Night/Advanced powerBI workshop	22nd Aug
Office Hour	28th Aug, 10-11 am, online
Submissions due	8th Sept, 11:59 pm, via email
Finalists announced	13th Sept
Presentation Day	19th Sept

Good luck! We look forward to seeing your dashboards and analysis.

This case competition is brought to you by:
Data Science Club x Simple Analytics x BizTech



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