# RAPP

**Case Study for Junior Analyst recruitment**

Your client is an online retailer who wants to have a data-driven approach to understanding their business and customers. They have provided you with two core datasets (transactional data and customer data) and would like you to present back your observations and recommendations.

You can use any analysis tools to investigate the data and prepare visualisations, please bring with you any workings or code used for the analysis. Aim to present your findings for 20 - 30 minutes, followed by 15 - 20 minutes of questions.

Consider the following structure and questions in your presentation, alongside anything else you think is relevant and interesting:

1. The client has provided transactional data. By analysing this data:
   a. Tell us which are the best-selling products, by region and department.
   b. What other key insights & observations can be drawn from the data?

2. The client has also provided you with demographic customer data about each buyer:
   a. How would you approach merging the two datasets, and what considerations do you need to make when doing this?
   b. What additional observations can you gain about the client's customers and their behaviour?

3. The client wants to improve commercial performance by making data-driven business decisions. What additional information or data would help them to achieve this, and how would you go about combining them into a performance focused report? Consider the below points.
   a. High/ low performing demographics.
   b. Additional datasets we would like access to.
   c. Considerations for creating a visual report.
   d. Tests or further analysis could we propose to drive future performance.

If you are making any assumptions, please state them in the deck and consider any questions that you would want to ask the client within your presentation.

Based on our competency framework, we will be using this case study to evaluate several competencies and have detailed the expectations of an Analyst for each one. You will not be able to display all these skills within this case study, but it should act as a guide for things to be aware of:

**Analytics Techniques (Statistics and Experimentation)**
- Has a working knowledge of A/B testing including sample sizes and defining hypotheses.
- Able to interpret statistical significance to declare an experiment successful or otherwise.

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**Working with data (SQL & Python)**

- Can solve analytical tasks with some help from more experienced team members.
- Performs basic SQL queries with standard clauses (e.g. WHERE, GROUP BY). Queries are mostly accurate first time.

**Customer Journey Analysis & Planning**

- Understand the principle of an end-to-end customer journey and the role it plays in strategic marketing.
- Able to contribute to the planning and development of customer journey analysis, from briefing to campaign execution and measurement.
- Awareness of the different types of journeys, terminology and where they sit in the customer experience.
- Ability to plan out basic journeys and write simple campaign briefs (mass targeting)."

**Attribution (Measurement, Value Engineering and Business Casing)**
- Frames thinking in terms of the strategy and client objectives.
- Ability to complete post campaign analysis (PCA) based on a brief and some senior input.
- Able to build basic measurement frameworks independently.

**Communication**

- I am an effective communicator to my manager, and the internal data analytics team.
- I regularly seek and provide feedback to my manager and internal data analytics colleagues.

   **Presentation & storytelling**

- I understand basic concepts of storytelling and can produce multiple specific analyses for my manager and the internal data analytics team.

   **Strategic thinking**

- I understand the importance of structured thinking and have at least 2 tools / examples at my disposal to help breakdown analytical challenges to find solutions.