

RBAC x Calian Data Analytics Case Competition: Creating a Personalized Experience for Every Guest

Context

You are part of the analytics and strategy team for a **restaurant-arcade hybrid** that offers dining, drinks, and entertainment experiences. The business wants to become a leader in **data-driven customer personalization**, using insights from its operations to enhance customer engagement and satisfaction.

Over the past year, the restaurant has collected multiple datasets capturing customer and transactional information, including:

- **Customer demographics and loyalty enrollment**
- **Visit-level orders** (spending, time spent, and frequency)
- **Item-level purchases** (food, drinks, and games)
- **Loyalty member information** (tiers and points)
- **Menu data** for all product categories

These datasets together provide a rich picture of how guests interact with the restaurant and its loyalty program.

The Challenge

Your task is to explore and analyze these datasets to address the central question:

“How can the restaurant leverage its data to enhance the customer experience and create measurable business value?”

You have complete freedom in how you approach the challenge.

Possible directions include—but are not limited to—:

- Conducting **exploratory data analysis (EDA)** to uncover behavioral insights
- Developing **predictive or prescriptive models** (e.g., churn prediction, spend forecasting, recommendation systems)
- Creating **customer segments or personas** based on data-driven clustering
- Designing **personalization or loyalty strategies** informed by your findings
- Proposing **operational or marketing improvements** supported by evidence

Your approach should demonstrate how data can drive meaningful and measurable improvements in the restaurant's customer experience.

The Goal

Your final deliverable should:

1. Present **key insights and findings** from your analysis.
2. Propose **advanced analytics initiatives** to enhance engagement, loyalty, and satisfaction.
3. Define a **KPI framework** the restaurant can use to measure performance and make data-driven decisions.
4. Identify **additional data** that would improve the analysis, and explain why it would be valuable.

There is no single correct answer — you are encouraged to be **creative, analytical, and strategic**.

Deliverables

Submit your **source code** and a concise **presentation** that includes:

- Your analysis and key visualizations
- The logic and approach behind your insights
- Strategic recommendations and proposed models
- A proposed KPI framework
- Suggestions for additional data collection and justification

You can submit your **Power BI dashboard** (for bonus points).

Send to: rbac@rotman.utoronto.ca before Nov 5 12:00 PM.

Selected teams will be advanced to final presentation on Nov 7 at 2:30 PM.

Evaluation Criteria

Criterion	Description	Weight
Analytical Depth	Soundness of methodology, quality and rigor of data analysis.	30%
Insightfulness	How well insights connect to improving customer experience.	25%
Strategic Value	Practicality and business impact of recommendations, including KPI framework.	30%
Communication	Clarity, storytelling, and presentation quality.	15%
Dashboard	Clarity, interactivity, and business value of the dashboard. (Power BI is preferred.)	10% Bonus
Cross-club Collaboration	Members from different clubs are encouraged to team up together.	5% Bonus