



BUCHAREST
BUSINESS
SCHOOL

Data, Information and Knowledge

Leadership Through Value

DATA MINING AND BIG DATA

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Data-Driven Decision Making: Leveraging Big Data and Analytics for Strategic Customer Insights

Objective

- Apply an extended set of data mining, statistical, and text analysis concepts to develop actionable, data-driven strategies that improve customer outcomes in a selected industry.

1. Select Industry & Business Challenge (20 minutes):

1. Choose an industry (e.g., retail, hospitality, healthcare, finance).
2. Identify a real-world business challenge (e.g., customer churn, product satisfaction, service bottlenecks).
3. Discuss what types of data could help address this challenge (e.g., reviews, survey results, transaction logs).

2. Strategic Data Planning (35 minutes):

1. Define strategic objectives (e.g., improve customer loyalty, anticipate market trends).
2. Identify data types: structured (e.g., sales numbers), semi-structured (e.g., emails), unstructured (e.g., social media).
3. Use a template to plan how data could be collected, interpreted, and used to support decision-making.

3. Simulated Data Analysis with Python & ChatGPT (60 minutes):

- Interpret the sample [dataset](#) for your industry.
- Calculate basic descriptive statistics (e.g., averages, medians, standard deviation).
- Think about the most appropriate analyses that would give you the best insights.
- Use Python or ChatGPT to perform the analyses (you can use the Data Science GPT) based on what you learned in class.
- Generate visual summaries (e.g., bullet points or tables showing key insights).

4. Strategy Development (30 minutes):

1. Reflect on what the data tells you and how it supports your business strategy.
2. Based on the simulated insights, draft practical recommendations.
3. Discuss how big data could support future decisions.

5. Presentation Preparation (35 minutes):

1. Prepare a concise presentation (6–8 slides).
2. Include industry context, strategic questions, key insights and final recommendations.

Miro boards

Team 1: https://miro.com/app/board/uXjVI0wAPZE=?share_link_id=49151396837

Team 2: https://miro.com/app/board/uXjVI0F48cQ=?share_link_id=339914997326

Team 3: https://miro.com/app/board/uXjVI0F592M=?share_link_id=724237726122

Team 4: https://miro.com/app/board/uXjVI0F59wY=?share_link_id=154845010574



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