# Project Objective:

The primary goal of this project is to gain practical experience in applying Data Warehousing and Design techniques to address complex business challenges. By abstracting business intelligence from data collected during the OLTP (Online Transaction Processing) process, we aim to create an effective Data Mart solution that leverages MySQL or MSSQL databases and relational tables.

# Project Phases:

## Designing the Data Warehouse (DWH) Solution:

* Develop a suitable Data Mart model.
* Create conceptual fact model(s) that represent the core data entities.
* Transform the conceptual fact model(s) into logical model(s) for precise data representation.
* Design the Data Mart structure to optimize data retrieval and reporting.

## Generating Hypothetical Data:

* Create a substantial volume of hypothetical data, simulating real-world scenarios, and store it as a CSV file. This data will serve as our foundation for testing and analysis.

## Demonstrating Business Intelligence with Power BI:

* Utilize Power BI, a powerful data evaluation tool, to extract meaningful insights from our hypothetical dataset.
* Showcase the application of Power BI for strategic decision-making.
* Answer key strategic business questions based on the data analysis.

# Key Deliverables:

* Well-structured Data Mart design.
* Logical model(s) translating conceptual data structures into real-world database representations.
* Hypothetical data generated and stored in a CSV file.
* Interactive Power BI dashboards and reports illustrating data-driven insights.
* Strategic business questions addressed through data analysis.

By the end of this project, we will have a comprehensive understanding of Data Warehousing, the ability to design effective Data Marts, and the proficiency to harness Business Intelligence tools like Power BI to derive valuable insights from data.