

# **Project - Phase I: Planning**

*Mobile and Laptop Sales Data*

**IFT 533: Data Visualization and Reporting for IT  
Project Group 29**

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## 1 Dataset Description

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### Overview

**Dataset Name:** Mobile and Laptop Sales Data

This dataset simulates 50,000 sales records for mobile phones and laptops. Each entry represents a sales transaction and contains product details, pricing, customer data, and regional information. The data can be used for analyzing trends, forecasting, customer segmentation, and business strategy.

### Structure

- **Rows:** 50,000
- **Columns:** 16
- **Type:** Structured tabular data

### Use Cases

- Sales Analysis
- Customer Segmentation
- Inventory & Stock Movement Monitoring
- Machine Learning (e.g., price prediction, demand forecasting)

### Column Data Types & Domains

The following table details the schema of the dataset:

Column Name	Data Type	Domain (Example or Range)
<b>Product</b>	Categorical	Mobile Phone, Laptop
<b>Brand</b>	Categorical	Apple, Samsung, Dell, OnePlus, etc.
<b>Product Code</b>	Categorical	Unique alphanumeric values (e.g., "73D2A7CC")
<b>Product Specification</b>	Categorical	Text-based descriptions
<b>Price</b>	Ratio	5,008 – 199,999
<b>Inward Date</b>	Interval	e.g., 2023-01-01 to 2025-03-31
<b>Dispatch Date</b>	Interval	e.g., 2023-01-02 to 2025-04-01
<b>Quantity Sold</b>	Ratio	1 – 10
<b>Customer Name</b>	Categorical	Random names (e.g., "Leah Copeland")
<b>Customer Location</b>	Categorical	Example: "South Todd", "North Lisa"
<b>Region</b>	Categorical	North, South, East, West, Central
<b>Core Specification</b>	Categorical	i3, i5, i7, Ryzen 5, Ryzen 7, etc.
<b>Processor Spec</b>	Categorical	Snapdragon, Exynos, Apple A15, MediaTek Dimensity

Column Name	Data Type	Domain (Example or Range)
RAM	Ordinal	4GB, 8GB, 16GB, 32GB
ROM	Ordinal	64GB, 128GB, 256GB, 512GB, 1TB
SSD	Ordinal	256GB, 512GB, 1TB, 2TB, or "N/A" (for mobile phones)

## 2 Prospective Dashboard Users

The dashboard is designed to serve various stakeholders with distinct interests:

User Type	Use Case
Sales Managers	Analyze top-selling products, regional trends, pricing impacts.
Inventory Teams	Monitor stock inflow vs dispatch, identify slow/fast-moving items.
Marketing Teams	Understand customer segments, run targeted campaigns.
Business Analysts	Generate insights for forecasting and market strategy.
Retail Executives	Evaluate brand performance and promotional campaign effectiveness.
Data Scientists	Train ML models for price optimization, customer churn, demand prediction.

## 3 List of User Requirements & Potential Questions

The following questions will guide the analysis and visualization process:

1. Which product type (mobile/laptop) sells the most in each region?
2. What is the average selling price by product brand?
3. Which cities or regions contribute the most to total revenue?
4. What is the average quantity sold per transaction per product?
5. What's the average time gap between inward and dispatch dates for products?
6. Which technical specifications (RAM/SSD/Processor) correlate with higher sales?
7. What are the returning customer's purchase patterns?
8. Can we predict the quantity sold based on technical specs and price?
9. What are the sales trends over time (monthly/quarterly)?
10. Are certain brands overpriced relative to their sales performance?
11. Do customer preferences differ by region (e.g., SSD size in North vs South)?

12. Are there anomalies in price or quantity sold that suggest data entry issues or outliers?
13. Which RAM/ROM combinations are most popular among customers?
14. How do i7 laptops compare in sales performance to Ryzen 7 ones?
15. Which month sees the highest product inward vs dispatch volume?
16. What are the top 5 revenue-generating brands?

## 4 References

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- **Dataset Link:**

<https://www.kaggle.com/datasets/vinothkannaece/mobiles-and-laptop-sales-data/data>

- **Mural Link:**

[Link to Mural Board](#)