

Project Design Phase-II
Solution Requirements (Functional & Non-functional)

Date	24 th June 2025
Team ID	PNT2025TMID08078
Project Name	iRevolution: A Data-driven Exploration of Apple's iPhone Impact in India
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Data Import and Processing	Import iPhone-related datasets (sales, region, model, etc.) into Tableau or Power BI. Clean and transform data (e.g., remove duplicates, align formats). Validate completeness and consistency across years and regions
FR-2	Interactive Dashboard Creation	Create an overview dashboard showing national iPhone adoption trends. Build regional comparison heatmaps (metro vs non-metro cities). Display price trends and resale values over time.
FR-3	Data Visualization and Analytics	Analyze market share of iPhone vs Android over years. Visualize product upgrade cycles and their impact. Map Apple service center distribution and user satisfaction. Chart affordability metrics (EMI availability, price drops, etc.)
FR-4	Reporting and Export Functionality	Export charts/visuals as images or PDFs for reports. Generate executive summary reports with insights and graphs. Create stakeholder-ready presentation slides (for investors, academia, or press).

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	Dashboard should be user-friendly and intuitive for tech enthusiasts, market analysts, and policymakers with minimal onboarding effort.
NFR-2	Security	Ensure secure access to iPhone sales and market data through robust authentication, encryption, and role-based authorization.
NFR-3	Reliability	System must maintain 99.9% uptime with accurate, real-time data on iPhone market penetration and user demographics in India.
NFR-4	Performance	Visualizations should load within 2 seconds and allow seamless filtering across regions, models, and timeframes, even with millions of data points.
NFR-5	Availability	The dashboard should be accessible 24/7 to global users with minimal scheduled downtime, supporting various time zones and device types.
NFR-6	Scalability	Solution must support expanding datasets, new device categories, and increased user traffic as Apple's market presence evolves in India.