

## Project Design Phase-II

### I-Revolution: A Data-Driven Exploration of Apple's iPhone Impact in India

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Maximum Marks: 4 Marks

#### 1. Data Flow Diagrams (DFD)

A Data Flow Diagram (DFD) visually represents how data flows within the system. For this project, the system analyzes Apple iPhone's impact in India using data analytics. The system collects, processes, stores, and visualizes data related to sales, market share, pricing trends, customer demographics, and economic influence.

##### 1.1 DFD Level 0 (Context Diagram)

The entire system is represented as a single process called 'iPhone Impact Analysis System'. The external entities interacting with the system include:

- Data Sources (Apple sales data, market research reports, government statistics)
- End Users (Researchers, Analysts, Students)
- Administrator
- Visualization Tool (Tableau Dashboard)

Data Flows:

- Sales & Market Data → System
- Processed Insights & Reports → End Users
- Dashboard Requests → System
- User Feedback → System

##### 1.2 DFD Level 1

The system is divided into the following major processes:

###### 1. Data Collection Module

- Collects iPhone sales data in India.
- Gathers pricing, import/export, and consumer preference data.

###### 2. Data Cleaning & Preprocessing Module

- Removes duplicate records.
- Handles missing values.
- Standardizes data formats.

### 3. Data Analysis Module

- Performs trend analysis.
- Compares iPhone market share with competitors.
- Analyzes urban vs rural adoption patterns.

### 4. Visualization & Reporting Module

- Generates interactive dashboards using Tableau.
- Produces graphical reports and insights.
- Displays revenue growth, pricing impact, and economic influence.

### 5. Database Storage

- Stores raw data.
- Stores cleaned datasets.
- Stores generated reports.

## 2. User Stories

The following user stories define system functionality for different stakeholders.

User Type	Functional Requirement (Epic)	User Story No	User Story / Task	Acceptance Criteria	Priority	Release
Customer (Web User)	View Dashboard	USN -1	As a user, I can view interactive dashboards showing iPhone sales trends in India.	Dashboard loads successfully with visual charts and filters.	High	Sprint-1
Customer (Web User)	Filter Data	USN -2	As a user, I can filter data by year, region, and price range.	Filtered results update dynamically on	High	Sprint-1

				dashboard.		
Customer (Web User)	Download Reports	USN -3	As a user, I can download analysis reports in PDF format.	Report downloads successfully with accurate data.	Medium	Sprint-2
Customer (Mobile User)	View Insights	USN -4	As a mobile user, I can view summarized insights about iPhone's market growth.	Mobile view is responsive and displays key metrics.	High	Sprint-1
Researcher/Analyst	Advanced Analytics	USN -5	As a researcher, I can access detailed datasets for deeper analysis.	System provides downloadable cleaned datasets.	High	Sprint-2
Administrator	Manage Data	USN -6	As an administrator, I can upload and update datasets.	New datasets are stored and reflected in dashboard.	High	Sprint-1
Administrator	User Management	USN -7	As an administrator, I can manage user access and permissions.	User roles are updated and access is controlled.	Medium	Sprint-2
Customer Care Executive	Handle Queries	USN -8	As a customer care executive, I can respond to user queries regarding	Queries are tracked and resolved in the system.	Low	Sprint-3