# Project Design Phase-II Data Flow Diagram & User Stories

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| Date | 22/06/2025 |
| Team ID | LTVIP2025TMID48146 |
| Project Name | A Data-driven Exploration of Apple’s iPhone Impact in India |
| Maximum Marks: | 4 Marks |

## Data Flow Diagrams:

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

**Data Flow diagram**

The DFD illustrates the flow of data from raw collection to final user interaction through a structured pipeline:

### ****1. User (Smartphone Buyer)****

* The end user interacts with the **dashboard** to explore, filter, and analyze iPhone models.
* Inputs filters (e.g., price, battery, brand) and receives visual outputs (charts, KPIs).

### ****2. Raw Dataset (Flipkart, Kaggle)****

* Source of data that includes Apple product listings with attributes like:
  + Model, Brand, RAM, Battery, Ratings, Price, etc.

### ****3. Data Cleaning****

* Removes missing values, incorrect entries, and formats raw data for consistency.
* Ensures reliability for analysis.

### ****4. Data Cleaning & Filtering****

* Additional steps like categorizing, normalizing fields (e.g., battery types, storage).
* Prepares structured data ready for Tableau visualization.

### ****5. Processed Data****

* Cleaned, structured, and usable dataset stored for visualization.
* Feeds into Tableau for dashboard generation.

### ****6. Dashboard (Tableau)****

* Interactive front-end where the user explores:Model comparisons, sales trends, KPIs (units sold, revenue, etc.)
* Pulls data from the **Processed Data** storage.
* Sends filtered requests and displays corresponding visua

## User Stories

Use the below template to list all the user stories for the product.

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| User Type | Functional Requirement (Epic) | User Story Number | User Story / Task | Acceptance Criteria | Priority / Release |
| Customer (Web user) | Explore Models | USN-1 | As a user, I can explore iPhone models visually. | iPhone cards or charts are displayed | High / Sprint-1 |
| Customer (Web user) | Filter & Compare | USN-2 | As a user, I can filter phones by price, battery, and storage. | Filters apply correctly and update visuals | High / Sprint-1 |
| Customer (Web user) | Model Comparison | USN-3 | As a user, I can compare iPhone specs side-by-side. | Specs and differences are clearly visible | High / Sprint-2 |
| Customer (Web user) | Visual Trends | USN-4 | As a user, I can view trend charts for pricing and popularity. | Graphs render correctly with filters | Medium / Sprint-2 |
| Customer (Web user) | KPI Overview | USN-5 | As a user, I can view summary KPIs like revenue and units sold. | KPI cards are shown on dashboard | Medium / Sprint-2 |
| Customer (Web user) | Online Access | USN-6 | As a user, I can access the dashboard online via browser. | Dashboard loads on browser/mobile | Medium / Sprint-2 |