

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

Date	19 February 2026
Team ID	LTVIP2026TMIDS24154
Project Name	Strategic Product Placement Analysis: Unveiling Sales Impact with Tableau Visualization
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 Gathering	Collect sales, price, promotion, and product placement data from retail databases.
FR-2	Data Cleaning & Preparation	Remove duplicates, handle missing values, and normalize data for consistency.
FR-3	Visualizations	Create meaningful Tableau visualizations such as: <ul style="list-style-type: none"> <li>• Sales Volume vs Product Category</li> <li>• Sales Volume vs Product Position</li> <li>• Promotion vs Sales Volume</li> <li>• Consumer Demographics vs Sales Volume</li> <li>• Product Category vs Product Position</li> </ul>
FR-4	Dashboard & Story Development	Develop interactive Tableau dashboards and story scenes with filters for product category, promotion, and product position.
FR-5	Web Integration	Embed the Tableau dashboard and story into a Flask-based web user interface for interactive access.

### **Non-functional Requirements:**

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

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	The dashboard must be user-friendly with intuitive navigation, filters, and clear visualizations.
NFR-2	<b>Security</b>	Ensure role-based access, data encryption, and secure connections (SSL/HTTPS).
NFR-3	<b>Reliability</b>	The solution should consistently deliver accurate and updated insights without failure.
NFR-4	<b>Performance</b>	Dashboards must load within 5 seconds and support quick interactions with filters.
NFR-5	<b>Availability</b>	The dashboard should be available 24/7 with minimal downtime (<1% monthly).
NFR-6	<b>Scalability</b>	The system must handle growing data volumes and users without degrading performance.