

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

Date	22-06-2025
Team ID	LTVIP2025TMID47723
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	User Registration	Registration through Form Registration through Gmail Registration through LinkedIn
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Data cleaning	<ol style="list-style-type: none">1. The dataset was first reviewed to ensure that all column names were clearly labeled and free from typos or trailing spaces.2. Missing values were checked, but no null or incomplete entries were found in the data.3. Data types were confirmed to be appropriate — for example, numeric values like "Price" and "Sales Volume" were stored as numbers, not strings.4. Any unnecessary whitespaces or formatting issues within text fields were trimmed to ensure uniformity5. The dataset was validated to be ready for analysis with clean, well-organized columns and consistent data values.
FR-4	Dash board of data visualization charts	<p>Bar chart: The bar chart compares average sales volumes by product categeory. Clothing has the highest average (1.83k) followed by electronics (1.75k) and food (1.73k)</p> <p>Stack bar chart: The chart shows average prices compared to competitor prices across categories. In all three (Clothing, Electronics, Food), our prices are consistently higher than competitors'.</p> <p>Heat map: The chart shows average sales volume by product</p>

		<p>category and store position. Clothing at the front of the store has the highest sales (1,923.7), while Food at the front has the lowest (1,672.7).</p> <p>Stack bar:</p> <p>The chart compares seasonal vs non-seasonal average sales by product category. Seasonal sales are slightly lower for Clothing but slightly higher for Electronics and Food.</p> <p>Bubble chart:</p> <p>The chart shows average sales volume by foot traffic and product position. Highest sales occur with *low foot traffic in aisles (1,900.5), while **medium aisle traffic has the lowest (1,691.9)*.</p> <p>Text box :</p> <p>The chart shows that promotions increase average prices and slightly boost sales volumes across all categories. Food shows the most improvement in sales when promoted (from 1,677 to 1,782).</p>
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Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	The system should provide an intuitive and user-friendly interface for both mobile and web users, ensuring smooth navigation and minimal learning curve.
NFR-2	Security	All user data must be encrypted; secure login (e.g., OTP/email verification) must be enforced; system must prevent unauthorized access.
NFR-3	Reliability	The system should function correctly under defined conditions without failure, ensuring accurate booking, payment, and confirmation processes.
NFR-4	Performance	The app should load pages and search results within 2 seconds under normal load and under 5 seconds during peak traffic.
NFR-5	Availability	The application should be available 99.9% of the time with proper failover systems to ensure continuous access to tour booking and support.
NFR-6	Scalability	The system must support increased user load and data volume without performance degradation as business and user base grow.