# Project Design Phase
# Proposed Solution Template

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| **Date** | 21 June 2025 |
| **Team ID** | LTVIP2025TMID51790 |
| **Project Name** | Strategic Product Placement Analysis: Unveiling Sales Impact with Tableau Visualization |
| **Maximum Marks** | 2 Marks |

**Proposed Solution:**

Our project addresses the challenge of ineffective product placement in retail by analyzing sales data through Tableau dashboards. The solution is unique in presenting insights as an interactive visual story, enhancing both customer satisfaction and decision-making. It is scalable and can be adapted for real-time retail environments or offered as a data-driven service model.

| S.No. | Parameter | Description |
|---|---|---|
| 1. | Problem Statement (Problem to be solved) | Retailers struggle to understand which products perform best in specific placements or categories, leading to poor sales and inefficient store layouts. |
| 2. | Idea / Solution description | We built interactive Tableau dashboards that analyze sales data to identify optimal product placements, promotion impact, and category-wise performance. |
| 3. | Novelty / Uniqueness | Unlike generic reports, our solution presents data as an intuitive **visual story**, combining KPI cards, charts, and filters tailored for smarter decisions. |
| 4. | Social Impact / Customer Satisfaction | Helps retail managers optimize store layouts, improving **customer shopping experience** and increasing **access to popular products**. |
| 5. | Business Model (Revenue Model) | Though academic, this model can be scaled into a **subscription-based analytics tool** for small and mid-sized retailers seeking data-driven placement insights. |
| 6. | Scalability of the Solution | The solution is scalable across multiple stores, cities, or chains by updating the dataset. Can integrate with real-time data and predictive analytics in future. |

# Proposed Solution

### Data Upload & Cleaning

Upload the supermarket sales dataset (CSV) into Tableau. Preprocess it by removing unnecessary columns and cleaning the data to ensure accuracy.

### Dashboard Development

Create interactive dashboards in Tableau showing sales by product category, branch, and customer type. Use charts like bar, area, funnel, and word cloud to visualize key insights.

### Filters and Interactivity

Enable filters for city, branch, product category, and customer type. Allow users to interact with data and personalize their analysis easily.

### Highlight Key Insights

Use color, tooltips, heatmaps, and story points in dashboards to highlight high-performing and low-performing products and sales patterns.

### Filters and Interactivity

Based on dashboard insights, recommend the ideal product placement (shelf, endcap, aisle) for each product category to improve sales.