**Problem Statement**

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| **Date** | 16-06-2025 |
| **Team ID** | LTVIP2025TMID48265 |
| **Project Name** | Strategic Product Placement Analysis: Unveiling Sales Impact with Tableau Visualization |
| **Maximum Marks** | 2 Marks |

In today’s highly competitive retail landscape, businesses face increasing pressure to maximize sales performance, optimize store layouts, and offer personalized customer experiences—all while contending with fluctuating market dynamics, seasonal trends, and price-sensitive consumers. Traditional methods of assessing product placement, pricing strategies, and consumer behavior rely heavily on static reports and fragmented datasets, limiting actionable insights and delaying strategic decisions.

Retailers often struggle with answering critical questions such as:

* Which product placements (Endcaps, Shelves, Aisles) drive the most sales within specific categories?
* How do different demographic segments contribute to overall purchase behavior?
* What is the impact of competitor pricing on the performance of similarly positioned products?
* How does seasonality affect consumer buying patterns across product lines?
* How can sales insights be made more accessible to both analysts and non-technical stakeholders?

Furthermore, most small to mid-sized retailers lack integrated visualization tools that consolidate these factors into a unified, interactive, and easily deployable system that supports real-time exploration and decision-making.

To address these challenges, this project proposes a data analytics solution using **Tableau for advanced visualization** and **Flask for accessible deployment**, which allows retail decision-makers to:

* Analyze **sales performance by product position and category** to inform merchandising and layout strategies.
* Correlate **demographic insights with purchasing patterns** to enhance marketing and product targeting.
* Compare **own pricing with competitor pricing** to improve competitive positioning and pricing strategies.
* Identify **seasonal sales trends** to guide promotion timing, stock planning, and resource allocation.
* Deliver a **story-driven dashboard experience** for both business and technical users through intuitive visual storytelling.
* Provide **web-based access** to visual analytics dashboards using a Flask front-end for stakeholder convenience and cross-platform accessibility.

By transforming static datasets into interactive Tableau dashboards and integrating them into a user-friendly web interface, this solution aims to **bridge the gap between raw data and actionable business intelligence**, enabling **real-time, data-driven decisions** for retail optimization.