## Project Title: Business Analyst Case Study – Supermarket Product Profit Analysis

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**1. INTRODUCTION**

Grocery stores handle a vast number of products and serve hundreds of customers every day. To stay competitive and efficient, it’s crucial for them to understand customer purchasing habits—what items are bought, when purchases are made, and how frequently customers return. This knowledge enables stores to stock popular products, design more effective discount strategies, and enhance overall customer satisfaction. The purpose of this project is to analyze sales data to identify trends in customer behavior and provide actionable, data-driven recommendations for improving store performance.

**2. PROJECT GOAL & SCOPE**

**Goal:** To understand what customers buy and when, so the grocery store can stock the right products, improve promotions, and increase customer satisfaction

**Scope :** The project looks at 3 months of in-store sales data to identify popular products, shopping trends, and customer types. It doesn’t include online shopping or customer feedback.

**3. Role of Business Analyst**

* **Understand customer habits** — what they buy, when, and how often.
* **Improve inventory** — keep hot-selling items stocked, avoid overstocking slow ones.
* **Run smarter promotions** — offer discounts or combos that actually boost sales.
* **Segment customers** — reward loyal shoppers, attract new ones.
* **Plan for the future** — predict demand and schedule resources better.

**4. BA Activities in This Project**

* **Talked to stakeholders** to understand what reports they need.
* **Wrote user stories** like "Show top-selling items" or "Track weekend sales."
* **Helped plan sprints** by organizing tasks and assigning story points.
* **Reviewed reports and dashboards** to make sure they met business needs.

**5. Scrum Framework Used**

This project uses the **Scrum framework** to manage tasks in short, organized time blocks called **sprints**. The team works together using roles and tools defined by Scrum to analyze customer purchases and create useful reports and dashboards.

A list of all tasks like:

* Find top-selling products
* Segment customers
* Build sales trend reports

**6. Sprint Planning & Sprint Cycle**

• **Sprint 1:** Data collection, cleaning  
• **Sprint 2:** Top-selling products analysis  
• **Sprint 3:** Customer segmentation  
• **Sprint 4:** Dashboard design and visualization  
• **Sprint 5:** QA review, stakeholder feedback, final report

**7. JIRA Board Setup**

 JIRA board used to manage supermarket analysis project  
• Columns: To Do → In Progress → In Review → Done  
• Each sprint includes tasks like data cleaning, analysis, dashboard design  
• Cards represent tasks, user stories, or bugs  
• Team moves tasks across columns as progress is made  
• Story points assigned to estimate effort per task  
• Board helps track sprint progress and team workload efficiently

**8. User Stories**

**"**As a manager, I want to identify peak shopping hours and fast-moving products so that I can plan inventory and staff scheduling effectively."

This includes acceptance criteria like:

* Reports highlight busiest hours and days
* Product movement trends are clearly visualized
* Actionable insights provided for stock planning

**9. Story Points & Estimation**

• Estimation uses the Fibonacci series: 1, 2, 3, 5, 8, 13  
• Low complexity (e.g., Data cleaning) – **2 points**  
• Medium complexity (e.g., Product trend analysis) – **5 points**  
• High complexity (e.g., Customer segmentation, dashboard design) – **8 points**  
• Very high complexity (e.g., Final QA and stakeholder review) – **13 points**

**10. Kanban vs Scrum (Optional)**

• **Kanban:** Tasks flow continuously, no fixed roles or time limits  
• **Scrum:** Work is done in sprints, with roles and regular team meetings

**11. Daily Stand-up Example**

**What I did yesterday:**  
Cleaned and imported 3 months of sales data into the analysis environment.

• **What I’m doing today:**  
Starting analysis on top-selling products by weekday and time slot.

**12. Sprint Review & Retrospective**

**Sprint Review:**  
– Show the dashboards and reports to the stakeholders  
– Get feedback on product trends and customer insights  
– Note changes for the next sprint

• **Sprint Retrospective:**  
– Talk about what went well  
– Discuss any problems faced  
– Plan what to improve in the next sprint