Requirements Gathering Report

1. Cover Information

Team Leader: Garv Dudy
Project Title: GarmentIQ
Project Description: Data-Driven Apparel Operations & Sales Intelligence System
Date: 29th January 2026

2. Project Overview and Context

2.1 Project Summary

GarmentIQ is a web-based apparel operations and sales intelligence system designed for a fictional clothing brand that manufactures garments in factories and sells them through an online platform. The system aims to streamline sales tracking, inventory management, and operational reporting while enabling data-driven business decisions through analytics and visualization.

The target users of the system include managers, staff members, and business analysts within the organization. The project combines software development and data analytics by integrating a secure web application, a relational database, and a business intelligence layer using Power BI.

2.2 Project Context

The system will operate within a small-to-medium apparel business environment where daily operations include managing product inventory, tracking sales transactions, monitoring stock levels, and analyzing performance trends. The solution supports internal users through authenticated access while also representing the company publicly through a basic informational website.

3. Stakeholder Analysis

3.1 Stakeholder List

Stakeholder / Group	Role	Interests / Goals	Influence
Business Manager	Overseas operations	Sales growth, inventory optimization	High
Store Staff	Data entry & updates	Easy data management, accuracy	Medium
Business Analyst	Performance analysis	Insights, trends, reporting	Medium
System Developer	System implementation	Stability, scalability	High
Customers (Indirect)	Purchase products	Product availability	Low

3.2 Stakeholder Summary

The most influential stakeholders are the Business Manager and System Developer, as they define operational needs and technical feasibility. Staff members focus on usability and efficiency and keeping

a track of inventory and keep updating the other staff members, while analysts require clean and structured data. Potential conflicts may arise between advanced analytics needs and system complexity.

4. Business Need and Problem Statement

4.1 Business Need

Many small apparel businesses rely on disconnected tools such as spreadsheets and manual tracking, leading to data inconsistency and limited insight into business performance. There is a need for an integrated system that centralizes operations and enables meaningful analysis.

4.2 Problem Statement

The apparel business lacks a centralized system to manage sales, inventory, and performance data, resulting in poor visibility into stock levels and sales trends, which negatively impacts decision-making and operational efficiency.

5. Project Goals and Scope

5.1   High-Level Goals
- Centralize sales and inventory data
- Enable role-based access for staff and managers
- Support business intelligence and reporting
- Improve inventory decision-making
- Demonstrate full SDLC application

5.2 Scope – In Scope
- Web-based application with login functionality
- MySQL relational database
- CRUD operations for inventory and sales
- ERD and UML diagrams
- Data export to Excel and Power BI dashboards

5.3 Scope – Out of Scope
- Online payment processing
- Mobile application
- Real-time third-party integrations
- Advanced machine learning models

6. Functional Requirements
- FR-1: The system shall allow staff and managers to log in securely.
- FR-2: The system shall allow authorized users to add, update, and view inventory records.
- FR-3: The system shall record sales transactions.
- FR-4: The system shall store data in a relational database.
- FR-5: The system shall allow data export for reporting purposes.

7. Non-Functional Requirements

- NFR-1 (Performance): The system shall respond to user actions within 3 seconds.
- NFR-2 (Security): User authentication shall be required for internal access.
- NFR-3 (Usability): The system shall have a simple and intuitive interface.
- NFR-4 (Reliability): Data shall persist without loss.
- NFR-5 (Maintainability): The system shall support future enhancements.

8. Constraints and Assumptions

8.1 Constraints

- Fixed academic deadline
- Limited to course-approved technologies
- Solo development effort

8.2 Assumptions

- Dummy data will be used for testing and analysis
- Users have basic system knowledge
- Required software tools are available

9. Initial Use Cases and User Stories

Use Case: Manage Inventory

- Actor: Staff, Manager
- Preconditions: User is authenticated
- Main Flow:
    1. User logs in
    2. Accesses inventory module
    3. Add, Delete or update products information

User Story

As a manager, I want to view sales and inventory reports so that I can make informed business decisions & I would like to have access to add delete or update any recode for the item or unit.

10. Priorities and Risk Highlights

10.1 Requirement Priorities

- Must Have: Authentication, inventory management, database
- Should Have: Reporting dashboards
- Could Have: Advanced analytics

10.2 Early Risk Highlights

- Risk: Integration complexity between systems

11. Summary and Next Steps

This Requirements Gathering Report outlines the objectives, scope, and requirements of the GarmentIQ system. The project integrates software development and data analytics to solve a real-world apparel business problem. Next steps include preparing the project proposal, finalizing system design, planning development sprints and working on making Data models, Schema Structure and Relations.