Requirement Analysis —
Technology Stack Template

Date	06 Nov 2025
Team ID	25E251B56BC5016B4484596B39025A8F
Project Name	CRM Application for Jewel Management - (Developer)
Maximum Marks	2 Marks

1. Data Flow Diagram (DFD) :

Level 0 – Context Diagram

This shows the system as a single process interacting with external entities.

External Entities:

- **Customer** – Places orders, makes payments, and requests service.
- **Admin / Manager** – Monitors reports, manages employees, and controls inventory.
- **Jewellery Staff / Salesperson** – Manages sales, customer details, and billing.
- **Supplier** – Provides jewelry stock and raw materials.

Process:

- **CRM Application for Jewel Management**

Data Stores:

- Customer Database
- Product / Inventory Database
- Billing / Transaction Database
- Supplier Database

Data Flow Summary:

- Customer ↔ CRM System: order details, feedback, payment info
- Supplier ↔ CRM System: stock updates, purchase orders
- Admin ↔ CRM System: reports, performance data
- CRM System ↔ Databases: store/retrieve relevant data

Level 1 – Detailed DFD

Main Processes:

1. **Customer Management**
   - o Input: Customer registration, contact info
   - o Output: Customer ID, loyalty status
2. **Inventory Management**
   - o Input: Stock updates from supplier
   - o Output: Updated stock levels, reorder alerts
3. **Sales & Billing**
   - o Input: Customer purchase request
   - o Output: Invoice, receipt, updated stock, payment record
4. **Supplier Management**
   - o Input: Purchase orders, payment
   - o Output: Delivery confirmation, supplier invoice
5. **Report Generation**
   - o Input: Data from transactions and inventory
   - o Output: Sales reports, performance dashboards

2. User Stories :

User Role	As a...	I want to...	So that I can...
Customer	Customer	Register and log in securely	Access my purchase history and loyalty points
Customer	Customer	Search jewelry items by type or price	Quickly find the products I need
Salesperson	Sales Staff	Create a new invoice for a purchase	Generate accurate bills for customers
Salesperson	Sales Staff	Update product stock after a sale	Keep inventory records accurate
Manager	Store Manager	View daily sales reports	Monitor performance and profitability
Manager	Store Manager	Manage user access and permissions	Ensure data security and role-specific access
Admin	Admin	Configure product categories and pricing	Maintain consistent catalog details

3. Functional Requirements

- Secure user authentication (Admin, Staff, Customer, Supplier)
- Customer management (Add/Edit/Delete, purchase tracking)
- Inventory management with auto stock alerts
- Sales and billing with tax and discount calculation
- Supplier order management
- Dashboard and analytics for reports
- Data backup and recovery system

4. Non-Functional Requirements

- **Performance:** Quick response time (<2 seconds for page loads)
- **Scalability:** Handle 1000+ concurrent users
- **Security:** Encrypted transactions, role-based access
- **Usability:** Simple, intuitive UI
- **Reliability:** 99.9% uptime
- **Maintainability:** Modular design for easy updates