

# Project Design Phase

## Functional Requirements

**Date:** 02 NOV 2025

**Team ID:** NM2025TMID02325

**Title:** CRM APPLICATION FOR JEWEL MANAGEMENT

**Maximum Marks:** 10 Marks

### 1. Overview

The CRM application for jewelry management is strategically designed to streamline and optimize jewelry business operations by managing comprehensive customer relationships, tracking orders efficiently, maintaining accurate inventory records, handling billing operations seamlessly, and facilitating effective communication between customers and sales teams. The following functional requirements define the system's core operations, detailed user interactions, and expected system outputs.

### 2. Functional Requirements by Module

#### A. Customer Management Module

Requirement ID	Functional Requirement Description
CM-01	The system shall allow users to create, view, edit, and delete customer records with full audit trails.
CM-02	The system shall store comprehensive customer details including name, contact number, email, city, address, and preferences.
CM-03	The system shall maintain complete purchase history for each customer with timestamps and transaction details.
CM-04	The system shall enable advanced searching and filtering of customers by name, city, loyalty tier, or purchase amount.
CM-05	The system shall allow tagging and categorization of VIP customers for personalized offers and premium services.
CM-06	The system shall send automatic personalized greetings or special offers on birthdays and anniversaries.

## B. Order Management Module

Requirement ID	Functional Requirement Description
OM-01	The system shall allow users to create, modify, and delete customer orders with change tracking capabilities.
OM-02	The system shall support both standard catalog jewelry orders and fully customized jewelry design orders.
OM-03	The system shall track order status in real-time (Processing, Designing, Ready, Shipped, Delivered).
OM-04	The system shall send automated SMS and email notifications to customers about order progress and status updates.
OM-05	The system shall link each order to its corresponding customer profile for seamless reference and history.
OM-06	The system shall calculate expected delivery dates automatically and trigger alerts if orders are overdue.

## C. Billing & Payment Module

Requirement ID	Functional Requirement Description
BP-01	The system shall generate invoices automatically for each completed order with itemized details.
BP-02	The system shall calculate total costs, applicable taxes, and authorized discounts or promotions.
BP-03	The system shall record and track various payment methods (Cash, Card, UPI, Online Banking, Cheque).
BP-04	The system shall update and maintain payment status (Pending, Paid, Partially Paid, Refunded).
BP-05	The system shall send automated payment reminders for pending invoices on configurable schedules.
BP-06	The system shall allow easy downloading, printing, and emailing of digital bills to customers.

## D. Inventory Management Module

Requirement ID	Functional Requirement Description
IM-01	The system shall store detailed inventory information including item ID, type (Gold, Silver, Diamond, Gemstones), weight, purity, and pricing.
IM-02	The system shall automatically update stock levels in real-time after each sale or purchase transaction.
IM-03	The system shall send alerts to inventory managers when stock reaches below defined threshold limits.
IM-04	The system shall track and manage item returns, exchanges, and adjustments systematically.
IM-05	The system shall generate comprehensive inventory reports (daily, weekly, monthly) with valuation data.

## E. Communication & Notification Module

Requirement ID	Functional Requirement Description
CN-01	The system shall send automated notifications via SMS, email, and app push notifications for follow-ups, order status, and personalized offers.
CN-02	The system shall allow sales staff to manually send targeted messages to selected customers or customer groups.
CN-03	The system shall maintain comprehensive logs of all messages and communications for compliance and reference.
CN-04	The system shall support scheduling of marketing campaigns and promotional communications in advance.

## F. Reporting & Analytics Module

Requirement ID	Functional Requirement Description
RA-01	The system shall generate comprehensive sales reports by day, week, month, and year with trend analysis.
RA-02	The system shall display customer buying trends, seasonal patterns, and most-purchased items with visual representation.
RA-03	The system shall provide inventory valuation reports and inventory turnover rate analysis.
RA-04	The system shall visualize data through interactive charts, graphs, and customizable dashboards.
RA-05	The system shall allow export of reports in multiple formats (PDF, Excel, CSV) for further analysis.

## G. Feedback & Review Module

Requirement ID	Functional Requirement Description
FR-01	The system shall automatically collect customer feedback after purchase completion or service delivery.
FR-02	The system shall allow staff to view, respond to, and address customer feedback promptly.
FR-03	The system shall generate comprehensive reports on customer satisfaction ratings and satisfaction trends.

## H. User Management & Security

Requirement ID	Functional Requirement Description
US-01	The system shall provide role-based access control with distinct roles (Admin, Manager, Sales Staff, Inventory Manager, Viewer).
US-02	The system shall require secure login with username and password, with password strength validation.

Requirement ID	Functional Requirement Description
US-03	The system shall log all user activities comprehensively for auditing, security, and compliance purposes.
US-04	The system shall allow system administrators to create, edit, deactivate, or remove user accounts as needed.
US-05	The system shall ensure all sensitive data is encrypted both in storage and during transmission using industry standards.

### 3. System-Level Functionalities

1. **Multi-Platform Access** - The CRM shall be accessible via both web browsers and mobile applications (iOS/Android) for flexibility.
2. **Dashboard & Metrics** - The system shall provide an intuitive dashboard summarizing key performance metrics including sales figures, current stock levels, and top-performing customers.
3. **Multi-User Support** - The CRM shall support multiple concurrent users accessing the system with proper data isolation and conflict management.
4. **Data Management** - The system shall provide comprehensive data backup and disaster recovery capabilities to ensure business continuity.
5. **External Integrations** - The system shall integrate seamlessly with email/SMS APIs, payment gateways, and accounting software for enhanced functionality.

### 4. Expected Outcomes

- **Centralized Management** - Achieve centralized and well-organized customer data management eliminating data silos
- **Operational Efficiency** - Improve order accuracy, reduce processing time, and minimize manual errors
- **Customer Engagement** - Enable automated communication, timely follow-ups, and personalized customer interactions
- **Data-Driven Decisions** - Provide comprehensive analytics and insights for informed business decision-making
- **Business Security** - Ensure secure and reliable handling of sensitive customer and business data with audit trails