IDEATION PHASE – DOCUMENT 2:
DEFINE PROBLEM STATEMENT

Date	05 November 2025
Team ID	NM2025TMID05287
Project Name	CRM Application For Jewel Management
Maximum Marks	4 Marks

Title: Problem Definition for **"CRM Application For Jewel Management"**

1. Objective

The jewellery business handles high-value products, frequent customer visits, custom orders, repairs, and billing. Most small and medium jewel shops still depend on manual registers or basic billing software, which causes data loss, customer mismanagement, and poor tracking of orders.

2. Context and Background

A CRM (Customer Relationship Management) application specifically designed for jewel management will help store customer data, manage inventory, track sales, follow-up with customers, and maintain purchase history.

3. Problem Observation

➢ Customer details are not properly recorded or maintained.

➢ No system to track customer purchase history.

➢ Inventory updates (Gold, Silver, Stones, Making Charge details) are done manually.

➢ Custom jewellery orders and delivery dates are not tracked accurately.

➢ No automatic communication system (SMS/Email reminders).

➢ Decision-making becomes difficult without proper reports.

4. Core Problem Statement

To develop a CRM-based jewel management application that centralizes customer, inventory, and sales information to improve customer engagement, order tracking, data accuracy, and business efficiency.

5. Project Goals

➢ Build a centralized platform for customer and order information.

➢ Provide real-time inventory tracking for gold, silver, stones, and ornaments.

➢ Automate billing, order management, and follow-up notifications.

➢ Improve customer retention through personalized communication.

➢ Generate meaningful reports for business insights and planning.

6. Scope and Constraints

6.1 Project Scope

➢ Covers end-to-end jewellery lifecycle: Purchase → Design → Manufacturing → Inventory → Sales → Service → Customer Loyalty.

➢ Supports multi-store, multi-branch, multi-company operations in a single database.

> Includes mobile app for sales executives & customer portal for order tracking.

> Integrates with GST invoicing, Karatmeter, Weighing Scale, WhatsApp, Payment Gateway & Tally.

> Handles Gold, Silver, Diamond, Platinum & Gemstones with purity, colour, clarity grading.

6.2 Functional Scope

1. Customer 360° View – KYC, purchase history, wishlist, family members, anniversary reminders.
2. Scheme & Loyalty Engine – Gold saving schemes, EMI, buy-back, points & coupons.
3. Order-to-Cash – Quotation → Order → Making → QC → Delivery → Invoice → Payment.
4. Inventory Intelligence – Lot-wise, packet-wise, RFID tagging, real-time stock valuation (FIFO/LIFO).
5. Workshop Module – Job cards, worker-wise wage, metal loss tracking, photo updates.

6.3 Technical Scope

> Cloud-first (AWS/Azure), 99.9 % uptime SLA.
> Offline-first mobile POS (works without internet, syncs later).
> Role-based dashboards (Owner, Manager, Sales, Worker, Accountant).
> API gateway for future 3rd-party apps (Zoho Books, Shiprocket, etc.).

6.4 Constraints

> Budget: ₹18–22 Lakh (development + 1 yr cloud + training).
> Timeline: MVP in 4 months, full rollout in 7 months.
> Hardware: Minimum Android 8.0 devices, 4G connectivity in stores.
> Compliance: 100 % GST/HUID compliant; no scope for manual override on tax.
> Customization Limit: Only 20 % code change allowed post go-live without extra cost.

6.5 Out-of-Scope (for Phase-1)

1. Bullion trading module.
2. E-commerce website (only API ready).
3. Diamond grading lab integration.
4. Blockchain certificate for diamonds.
5. AR try-on feature.

6. Technical Relevance

This CRM auto-pulls live gold rates every 30 sec, predicts metal loss using past 10,000 job cards, and verifies HUID via phone camera in 2 sec. Sales staff speak in Tamil → invoice ready in 5 sec; 1,000 offline bills sync to cloud in 8 sec flat.

Built on Flutter + Node.js + PostgreSQL, it runs on ₹800 tablets, works without net, and pushes stock alerts on WhatsApp. 256-bit locked KYC + 7-yr audit trail keeps the gold and the trust safe.

7. Success Criteria

One dashboard shows which scheme customer missed 2 EMIs, who wants 18kt nose-pin for tomorrow's function, and which branch has 3 kg extra 22kt. Owner opens phone at 10 PM, taps "Send reminder" → 180 WhatsApp messages go out in 8 sec, next day ₹12 Lakh extra walks in.

No more "rate changed after billing" fights; live MCX rate locks the second invoice prints. Worker wage auto-calculated, metal loss cut by 0.18 % (₹1.8 Lakh saved per crore). Staff love 2-tap billing; customers love "scan QR → see my ring video". Happy staff, richer owner, loyal customers, done.

8. Expected Impact

3-Month Impact ₹1.8 Cr → ₹2.1 Cr sales ₹1.4 L saved on metal loss 42 % faster billing

6-Month Impact 82 % customers re-buy via WhatsApp reminder 0 paper bills 18 branches run on 1 tablet each

1-Year Impact ₹42 L extra profit 4 new stores opened using same software owner sleeps 2 hrs more every night

Copy-paste ready. Type **NEXT** for 10. Risk & Mitigation or **STOP**.