Phase 1: Problem Understanding & Industry Analysis

1. Requirement Gathering

Business Problem:

Managing customer, instrument rentals, payments, and fines using Excel or paper records is inefficient and error-prone when customers grow into hundreds or thousands.

Requirements:

1. Customers can rent musical instruments for personal or institutional use.
2. Track rental start and end dates, and status of instruments (Available/Rented/Repair).
3. Calculate fines for:
   a. Late return
   b. Damage
4. Apply promotions during special events (e.g., "Instrument Day Sale").
5. Automated reminders to customers for return dates.
6. Rental approval process for expensive instruments.
7. Generate reports:
   a. Active rentals
   b. Overdue rentals
   c. Revenue reports
   d. Instrument condition tracking
8. Secure login for different users:
   a. Admin (Full Control)
   b. Store Manager (Manage Rentals)
   c. Customer Support Agent (Manage Customers)
   d. Customer (View Own Rentals and Payments)
9. Payment Method:
   a. Customers pay via PhonePe, Razorpay, or Cash.
   b. Customer Support Agent manually updates Payment record in Salesforce with:

    i. Payment Method (PhonePe / Razorpay / Cash)
   ii. Transaction ID (if Online)
  iii. Payment Date
  iv. Payment Amount
   v. Status (Paid / Pending)

2. Stakeholder Analysis

Stakeholder	Role & Responsibilities
✓ Business Owner	✓ Sets policies, reviews reports, oversees system
✓ Store Manager	✓ Manages rental process, approves high-value rentals, handles inventory
✓ Customer Support Agent	✓ Registers customers, manages customer info, assists in rentals, updates payment records
✓ Customer	✓ Views own rental history, submits rental requests, makes payments

3. Business Process Mapping

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[Customer] → [Customer Registration] → [Browse Instruments] → [Select
Instrument & Rental Period] →
[Submit Rental Request] → [Approval Process (if needed)] → [Payment
(PhonePe/Razorpay/Cash)] →
[Payment Updated by Support Agent] → [Rental Confirmation] →
[Instrument Status Updated to Rented] →
[Automated Reminders] → [Return Instrument] → [Damage Check] → [Fine
Calculation] →
[Fine Payment (if applicable)] → [Instrument Status Updated to
Available] →
[Customer Feedback] → [Reports & Analytics]
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4. Industry-Specific Use Case Analysis

- Near Music Schools or Colleges → Students renting instruments for projects or exams.
- Short-Term Concerts → Bands renting equipment for events.
- Individual hobbyists → Renting instruments at affordable rates.