

# Phase 5: Detailed Specification and Capability Definition

## Jewelry Management CRM Application - Comprehensive Requirements Documentation

**Project Title:** CRM Application for Jewelry Business Operations - Developer Initiative

**Date:** November 01, 2025

**Team ID:** NM2025TMID08468

**Maximum Marks:** 4 Marks

### Executive Overview

Phase 5 establishes all-encompassing functional and non-functional capability specifications for the Salesforce-engineered CRM infrastructure serving jewelry retail enterprises. This documentation provides explicit direction for the development workforce regarding system behavior, performance characteristics, architectural decisions, and validation methodologies. The specification addresses jewelry-exclusive operational complications encompassing premium merchandise governance, artisan-created request workflows, individualized purchaser partnerships, and protective information safeguarding standards.

### Section 1: Functional Capability Requirements

Functional requirements delineate the specific operational capabilities and system behaviors necessary to fulfill jewelry retail business procedures.

#### FR-1: Purchaser Enrollment & Account Establishment

**Capability Overview:** Enable purchaser registration processes and persistent account maintenance within the infrastructure.

#### Detailed Specifications:

- Purchaser enrollment utilizing form submission methodology
- Social credential authentication (Google/Facebook authorization)
- Account information encompassing communication coordinates, behavioral inclinations, dimensional measurements, commercial transaction history

## **FR-2: Stakeholder Communication Interface**

**Capability Overview:** Furnish purchasers with personalized communication channel for engaging with the infrastructure.

### **Detailed Specifications:**

- Credential verification mechanisms
- Commercial transaction history retrieval
- Artisan-created request supervision functionality
- Behavioral inclination customization
- Consultation appointment organization
- Monetary receipt and authentication documentation download capability

## **FR-3: Merchandise Registry Management**

**Capability Overview:** Create and maintain detailed merchandise portfolio within the infrastructure.

### **Detailed Specifications:**

- Merchandise insertion with merchandise identification codes (SKU), descriptive data, thorough particulars
- Composition documentation (metallic classification, purity degree)
- Gemstone information (Four C evaluation: Chromatic properties, Clarity degree, Cut evaluation, Carat mass)
- Mass documentation, authentication certification materials
- Multi-image attachment capability
- Commercial acquisition expenses and customer-accessible valuation configuration
- Merchandise condition categorization (procurement-ready, conditionally designated, finalized sale, borrowed arrangement)

## **FR-4: Merchandise Portfolio Supervision**

**Capability Overview:** Monitor and observe merchandise accessibility throughout enterprise locations.

### **Detailed Specifications:**

- Instantaneous merchandise availability documentation spanning multiple locations
- Merchandise identifier scanning mechanisms (identifier and radio-frequency identification) for documentation and removal procedures
- Movement documentation among locations
- Mechanized notification protocols for merchandise reorder activities
- Unauthorized merchandise loss observation and alert mechanisms

## **FR-5: Merchandise Monetary Assessment**

**Capability Overview:** Execute merchandise worth calculation and documentation capabilities.

### **Detailed Specifications:**

- Mechanized valuation determined by marketplace pricing information
- Historical valuation documentation and change tracking
- Borrowed merchandise categorization and independent accounting
- Monetary assessment documentation for protective insurance objectives

## **FR-6: Artisan-Created Request Administration**

**Capability Overview:** Coordinate and supervise bespoke merchandise manufacturing procedures.

### **Detailed Specifications:**

- Artisan request generation incorporating aesthetic design particulars
- Purchaser authorization workflow mechanisms
- Production achievement stage observation
- Artisan professional assignment and coordination
- Manufacturing excellence review procedures
- Merchandise delivery scheduling mechanisms

## **FR-7: Artisan Request Communications**

**Capability Overview:** Automate purchaser interaction throughout artisan request production timeline.

### **Detailed Specifications:**

- Mechanized communications at accomplishment stages
- Purchaser communication interface for advancement observation
- Aesthetic modification request procedures
- Production cycle image distribution mechanisms

## **FR-8: Commercial Prospect Administration & Engagement Funnel**

**Capability Overview:** Supervise prospective purchaser recognition and progression management.

### **Detailed Specifications:**

- Prospective purchaser documentation from retail floor interactions and internet channels
- Engagement prospect advancement observation categorized by completion phase
- Prospective purchaser evaluation calculated from interaction participation and financial authorization capacity

- Commercial transaction completion investigation

## **FR-9: Quotation & Valuation Management**

**Capability Overview:** Generate and oversee financial proposals incorporating flexible valuation frameworks.

### **Detailed Specifications:**

- Financial proposal generation utilizing adaptable valuation computation procedures
- Financing accessibility options incorporation
- Previously-owned merchandise worth computation
- Promotional reduction governance procedures
- Quotation expiration monitoring

## **FR-10: Commercial Transaction Documentation Processing**

**Capability Overview:** Execute financial transaction documentation and merchandise delivery procedures.

### **Detailed Specifications:**

- Quotation transformation into commercial agreements
- Monetary compensation procedure incorporation
- Monetary receipt documentation with merchandise detail enumeration
- Marketplace tax computation accuracy
- Protection certification and authentication document production

## **FR-11: Mechanized Promotional Operations**

**Capability Overview:** Execute promotional initiatives utilizing purchaser behavioral information.

### **Detailed Specifications:**

- Commemorative occasion (birthday, anniversary) mechanized promotional messaging
- Merchandise compilation presentation communications
- Purchaser grouping subdivision targeted promotional initiatives
- Purchaser referral observation and reward monitoring
- Distinguished purchaser initiative programs

## **FR-12: Purchaser Grouping Subdivision**

**Capability Overview:** Categorize purchasers for personalized engagement procedures.

### **Detailed Specifications:**

- Purchaser subdivision determined by commercial transaction history, behavioral inclinations, financial authorization
- Consumer behavioral classification procedures
- Inactive purchaser identification
- Significant-value purchaser identification and exclusive handling

## **FR-13: Information Safeguarding & Operational Procedures**

**Capability Overview:** Establish governance mechanisms safeguarding information protection and operational integrity.

### **Detailed Specifications:**

- Governance preventing purchaser account elimination with energetic requests
- Governance preventing merchandise elimination with awaiting commercial procedures
- Governance preventing historical transaction elimination for regulatory preservation
- Information modification documentation for all procedures

## **FR-14: Information Security & Authorization Governance**

**Capability Overview:** Govern authorization permissions and protective infrastructure.

### **Detailed Specifications:**

- Permission categorization (commercial associate, management authority, retail proprietor, administrative personnel)
- Dual-element credential authentication for delicate procedures
- Information encryption for purchaser particulars and financial transaction records
- Engagement duration governance and disconnection procedures

## **FR-15: Administrative Instrumentation & Data Examination**

**Capability Overview:** Furnish management with performance information and examination capabilities.

### **Detailed Specifications:**

- Commercial achievement information categorized by duration, merchandise classification, personnel
- Merchandise valuation and consumption pace observation

- Purchaser worth calculation throughout partnership duration
- Promotional initiative effectiveness evaluation
- Commercial profit margin investigation and evaluation

## **FR-16: Portable Technology Accessibility**

**Capability Overview:** Deliver system functionality via portable computing infrastructure.

### **Detailed Specifications:**

- Portable technology interface customization
- Portable access to purchaser account particulars
- Merchandise availability observation capability
- Commercial transaction documentation capability
- Purchaser documentation and credential recording capability

## **FR-17: Business Documentation & Information Export**

**Capability Overview:** Create and distribute customizable documentation and information exports.

### **Detailed Specifications:**

- Customizable business documentation generation
- Automated documentation distribution programming
- Spreadsheet and documentation format export capability
- Marketplace compliance documentation
- Protective insurance documentation production

## **Section 2: Non-Functional Capability Requirements**

Non-functional requirements define infrastructure performance characteristics, protective standards, and operational dependability measures.

### **NFR-1: User Accessibility and Interface Design**

**Specification:** Infrastructure interface designed for non-technical jewelry retail personnel accessibility. Mobile application interface must facilitate straightforward operation throughout purchaser consultations. Instructional materials and integrated application support accessible. Requirement: Workforce personnel accomplish foundational operation competency inside 2-hour instruction allocation.

## **NFR-2: Information Protection Infrastructure**

**Specification:** All confidential particulars (purchaser documentation, merchandise valuations, financial transaction records) undergo encryption mechanisms throughout persistence and transmission procedures. Dual-element credential authentication implementation for management functions. Hierarchical authorization governance strictly maintained. Marketplace transaction processing (PCI-DSS) compliance requirements satisfied. Yearly protective infrastructure assessment execution.

## **NFR-3: Infrastructure Dependability**

**Specification:** 99.9% accessibility guarantee achievement. Mechanized information preservation every 4-hour interval. Information legitimacy verification procedures eliminate incorrect information entry. Operational procedures guarantee information preservation integrity. Absence of information deterioration in premium transaction circumstances. User-comprehensible communication regarding operational difficulties.

## **NFR-4: Infrastructure Reaction Velocity**

**Specification:** Information accessibility timing <2 second interval for all operational procedures. Information search outcome presentation <1 second interval for merchandise identification queries. Portable application operates smoothly on third-generation (3G) mobile networks. Support 50+ simultaneous consumers. Information storage inquiry improvement for extended merchandise collections (10,000+ merchandise items).

## **NFR-5: Infrastructure Accessibility and Maintenance**

**Specification:** Infrastructure accessible perpetually (24/7 operational scheduling) for purchaser communication interface. Maintenance procedures programmed during minimum-demand intervals (midnight through 3 hours morning). Calamity restoration capacity with <2 hour restoration duration. Mechanized replacement procedures for essential services.

## **NFR-6: Infrastructure Growth Capability**

**Specification:** Support enterprise structures spanning independent location through 50+ location commercial networks. Merchandise collection expansion from 100 through 100,000+ merchandise items. Purchaser portfolio expansion toward hundreds of millions of documentation items. Accommodate market demand elevation throughout holiday commerce periods. Internet computing framework mechanized expansion capability.

## **NFR-7: Operational Preservation and Administration**

**Specification:** Modular infrastructure design facilitating capability supplementation. Comprehensive operational documentation for administrative personnel. Information management for all tailoring alternatives. Mechanized examination protocols for essential procedures. Effortless modernization pathway for Salesforce framework modernizations.

**NFR-8: Governance and Regulatory Adherence**

**Specification:** Marketplace transaction processing (PCI-DSS) governance compliance. Private information governance (GDPR) compliance achievement. Marketplace usage taxation computation precision spanning jurisdictions. Information modification documentation for regulatory requirements. Protective insurance and customs documentation facilitation.

**NFR-9: Computing Device Interoperability**

**Specification:** Apple iPhone and Android computing platform support. Compatibility with prevalent internet interfaces (Chrome, Firefox, Safari, Edge). Marketplace transaction system interaction. Merchandise identifier scanning machinery and radio-frequency identification technology support. Application architecture linking with merchandise assessment consultancies and authentication certification repositories.

**NFR-10: Information Characteristics and Legitimacy**

**Specification:** Legitimacy governance for mandatory information categories. Organization legitimacy for merchandise identification codes, authentication certification numerals. Repetition recognition for purchaser and merchandise documentation. Information renovation procedures for transferred information. Historical information preservation spanning 7+ calendar years.

**NFR-11: Calamity Restoration and Backup Infrastructure**

**Specification:** Mechanized information preservation every 24-hour interval toward geographically distributed repositories. Preservation conservation spanning 1 calendar year. Restoration duration objective (RTO): 2 hours. Information deterioration objective (RPO): 4 hours. Tri-monthly calamity restoration examination exercises.

**NFR-12: Worldwide Market Assistance and Adaptability**

**Specification:** Worldwide monetary system assistance incorporating mechanized conversion capabilities. Multilingual application interface (English, Spanish, Mandarin, Hindi translation). Territorial usage taxation and governance procedures. Metallic purity customization (karat measurement compared to refinement measurement).

**Section 3: Infrastructure Architecture & Technological Decisions**

**Technological Infrastructure**

Component Category	Implementation Technology
Internet Computing Framework	Salesforce Sales Cloud + Experience Cloud ecosystem
User Interface Layer	Lightning Web Components (LWC) for internet interaction; Salesforce Mobile framework
Computational Engine	Salesforce Apex execution, REST application architecture



Component Category	Implementation Technology
<b>Information Storage</b>	Salesforce Information Storage with specialized documentation items
<b>Mechanization Procedures</b>	Salesforce Flow Orchestration, Procedure Governance, Authorization Procedures
<b>Third-Party Interconnection</b>	REST application architecture connecting marketplace transaction systems, monetary compensation providers, merchandise assessment consultancies
<b>Protective Infrastructure</b>	Salesforce Information Protection solution for encryption, observation monitoring, information modification documentation
<b>Portable Computing</b>	Salesforce Portable Computing development kit incorporating offline functionality

## Data Organization & Specialized Documentation Items

**Purchaser Documentation:** Marketplace Purchaser documentation extended incorporating jewelry behavioral inclinations, dimensional measurements, distinguished purchaser categorization

**Jewelry\_Merchandise:** Merchandise identification code, merchandise categorization, composition documentation, principal gemstone, supplementary gemstone particulars, mass, authentication particulars, image documentation, procurement expense, consumer-accessible valuation, merchandise condition, location coordinates

**Artisan Request:** Purchaser documentation, aesthetic particulars, authorization condition, production achievement phases, designated artisan professional, projected completion, genuine completion timestamp

**Commercial Engagement:** Marketplace Commercial Engagement documentation incorporating jewelry-exclusive information categories

**Merchandise Assessment:** Merchandise, merchandise assessment professional, evaluation timestamp, valuation, assessment objective (protective insurance/merchandise resale), certification documentation

**Promotional Initiative:** Marketplace Promotional Initiative documentation incorporating jewelry-exclusive subdivision procedures

## Section 4: Operational Procedures and Governance Mechanisms

### Primary Business Governance Mechanisms

Governance Reference	Governance Explanation
<b>BR-1</b>	Governance preventing purchaser documentation elimination with energetic requests or requests throughout preceding 24-month duration
<b>BR-2</b>	Governance preventing merchandise elimination with awaiting commercial procedures or sold throughout preceding 84-day duration
<b>BR-3</b>	Management authorization requirement for promotional reductions exceeding 15% threshold

Governance Reference	Governance Explanation
<b>BR-4</b>	Mechanized notification when merchandise lacks scanning documentation throughout 90-day duration (unauthorized merchandise loss notification)
<b>BR-5</b>	Mechanized notification when merchandise categorization inventory deteriorates beneath minimal quantities
<b>BR-6</b>	Mechanized purchaser correspondence when artisan request production achievement accomplished
<b>BR-7</b>	Authentication certification documentation requirement for gemstones exceeding 0.5 carat measurement threshold
<b>BR-8</b>	Complete information modification documentation for merchandise valuations and purchaser financial transaction information

## Section 5: Acceptance and Validation Criteria

Requirement Category	Validation Threshold
<b>FR-1 to FR-2</b>	Purchaser enrollment and interface functional; 100+ examination purchasers; interface accessible via internet and portable frameworks
<b>FR-3 to FR-5</b>	500+ merchandise items inserted with thorough particulars; merchandise identifier scanning functional; instantaneous valuation operational
<b>FR-6 to FR-7</b>	50+ artisan requests supervised through finished procedures; mechanized communications distributed; purchaser interface demonstrating advancement
<b>FR-8 to FR-10</b>	Commercial engagement portfolio incorporating 100+ engagement possibilities; financial proposal production functional; monetary compensation incorporated
<b>FR-11 to FR-12</b>	Mechanized promotional messaging distributed toward subdivision purchaser inventories; information interaction percentage >25%; engagement percentage >5%
<b>FR-13 to FR-14</b>	Operational procedures avoid 100% of unauthorized elimination procedures; authorization subdivision governance implemented; zero protective infrastructure compromises
<b>FR-15 to FR-17</b>	Administrative instrumentation operational <2 second interval; portable application operational on Apple and Android; documentation exportable
<b>NFR-1 to NFR-4</b>	90% personnel workforce accomplishes instruction inside 2-hour allocation; 99.9% accessibility obtained; all information viewable <2 second interval; zero information deterioration
<b>NFR-5 to NFR-8</b>	Infrastructure accommodates 10 locations without efficiency reduction; Marketplace transaction processing (PCI-DSS) governance accomplished; information modification documentation thorough
<b>NFR-9 to NFR-12</b>	Portable application functional on Apple and Android; Marketplace transaction system interaction prosperous; worldwide monetary system assistance operational; information preservation examined

## Section 6: Operational Restrictions and Interdependencies

### Operational Restrictions

- **Monetary Resources:** Mid-marketplace jewelry retail organization monetary resource constraints
- **Implementation Duration:** 46 calendar day allocation for finished development and operational deployment
- **Development Personnel:** 3 development specialists possessing fluctuating Salesforce framework proficiency
- **Governance Requirements:** Marketplace transaction processing (PCI-DSS) and private information governance (GDPR) adherence necessity

### Interdependency Factors

- Salesforce framework application architecture constraints and execution governor restrictions
- Marketplace transaction system interconnection, monetary compensation provider coordination, merchandise assessment repository access
- Computing equipment requirements: merchandise identifier scanning machinery and radio-frequency identification equipment accessibility and framework interoperability
- Personnel incorporation and administration procedures
- Historical information transportation: pre-existing information characteristics and legitimacy

### Conclusion

Phase 5 capability specification documentation furnishes the advancement workforce with exhaustive capability specifications, efficiency standards, architectural selections, and assessment procedures necessary for prosperous infrastructure development and operational deployment. The specification comprehensively addresses jewelry retail sector distinctive complications through customer relationship governance, merchandise portfolio administration, artisan request supervision, and protective information safeguarding mechanisms. With explicit recognition criteria and technical specifications, the development personnel possess a detailed execution pathway for delivering comprehensive capability encompassing operational procedure enhancement, purchaser experience elevation, and commercial prosperity extension for jewelry retail enterprises.

**Project Status:** Comprehensive Specification Documentation Finalized - Architecture Ready for Development Execution  
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