# Project Design Phase

Problem – Solution Fit Template

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| PROJECT DETAILS |
| Project Title : Jewel Inventory Management System |
| Team ID : LTVIP2025TMID29406 |
| Date : 30 June 2025 |
| Institution : G. Pullaiah College of Engineering and Technology |

Maximum Marks : 2 Marks

## Problem – Solution Fit Template:

The Problem–Solution Fit means you have identified a real problem faced by your customer and designed a solution that effectively addresses it. This step helps project teams, innovators, and developers focus on user needs, behaviors, and priorities.

* Purpose:
* Solve real-world problems that impact store admins and goldsmiths.
* Ensure better adoption by aligning your solution with the actual working habits of users.
* Improve communication by targeting key user frustrations.
* Build trust through automation and accurate data.
* Analyze current issues to create a role-based, validated, and efficient system.

### 1. 🔹 CUSTOMER SEGMENT(S)

* Retail Jewelry Store Owners
* Inventory and Stock Managers
* Billing and Sales Staff
* Artisans and Designers
* IT and Support Staff in jewelry chains

### 2. 🔧 JOBS-TO-BE-DONE / PROBLEMS

* High time consumption due to manual entry of customer and item details
* Human errors in pricing based on weight, purity, and ornament type
* Unclear responsibilities due to absence of user-based access roles
* Inability to automate repetitive processes like pricing and validation
* Challenges in generating real-time reports for inventory and sales

### 3. 🎯 TRIGGERS

* Need to reduce human errors and inefficiencies
* Customer dissatisfaction due to mismanaged orders
* Lack of real-time updates and automated calculations
* Desire to streamline inventory and billing operations

### 4. 💬 EMOTIONS: BEFORE / AFTER

* Before:
* Overwhelmed with repetitive manual work
* Uncertainty in pricing and inventory tracking
* Frustration over late or missing data
* After:
* Peace of mind with automated workflows
* Confidence in pricing and billing accuracy
* Better visibility and accountability via dashboards

### 5. 🛠 AVAILABLE SOLUTIONS

* Conventional inventory software lacking integration
* Spreadsheets used for pricing, billing, and tracking
* Manual records for order and worker assignment

### 6. 🚫 CUSTOMER CONSTRAINTS

* Fear of migrating from paper-based systems
* Budget limitations for enterprise solutions
* Limited digital training for staff
* Concerns about system reliability and data privacy

### 7. 📋 BEHAVIOUR

* Manual price calculation using charts
* Verbal task delegation to workers
* Record keeping using notebooks or Excel
* Basic sales reporting, often inaccurate

### 8. 📡 CHANNELS OF BEHAVIOUR

* ONLINE:
* Salesforce Lightning App
* Automated pricing via flows
* Apex triggers for payment accuracy
* Dashboards and consolidated reports
* OFFLINE:
* Paper bills and ledgers
* Face-to-face communication for task assignment
* Manual record updates

### 9. 🔍 PROBLEM ROOT CAUSE

* Lack of integrated and automated inventory tools
* Inconsistent workflows and undefined user roles
* Manual dependency for all pricing and validation tasks
* No real-time collaboration across departments

### 10. ✅ YOUR SOLUTION

* Salesforce-based Jewel Inventory System with modular components
* Custom Objects for Customer, Item, Pricing, Billing, and Orders
* Triggers to validate payments and prevent data mismatch
* Flows for price calculation based on gold purity, weight, and ornament type
* Profile-based access control for Admins, Workers, and Billing Staff
* Real-time dashboards and scheduled reports for decision-making
* Record Types and Page Layouts to distinguish between item categories