

## Project Design Phase Solution Architecture

Date	02 November 2025
Team ID	NM2025TMID03019
Project Name	Laptop Request Catalog Item
Maximum Marks	4 Marks

### Solution Architecture:

#### Goals of the Architecture:

- Provide a structured and user-friendly laptop request interface
- Automate approval workflows to reduce manual intervention
- Ensure accurate asset tracking and fulfillment through integration

#### Key Components:

- sc\_catalog\_item table (defines the laptop request item)
- sc\_request and sc\_req\_item tables (handle submitted requests)
- Approval workflow (based on user role or department)
- Asset Management integration (links request to available inventory)

#### Development Phases:

1. Design the catalog item form with mandatory fields (e.g., laptop type, justification)
2. Configure approval flow using Flow Designer or Workflow Editor
3. Link request to asset inventory for fulfillment tracking
4. Test request submission, approval routing, and fulfillment Scenarios

#### ✖ Solution Architecture Description:

The solution architecture for the **Laptop Request Catalog Item** is designed to streamline IT asset provisioning in ServiceNow. It begins with a custom catalog item that captures essential request details such as device type, justification, and delivery location. Upon submission, the request flows through a predefined approval process based on user roles or departments. Once approved, the request is linked to the asset inventory for fulfillment and tracking.

This architecture ensures consistency across request records (sc\_request, sc\_req\_item) and asset tables, reducing manual errors and improving visibility. The development process includes form design, workflow configuration, and integration testing. By automating approvals and linking to inventory, the system enhances operational efficiency, user satisfaction, and scalability in ITSM environments.

Example - Solution Architecture Diagram:

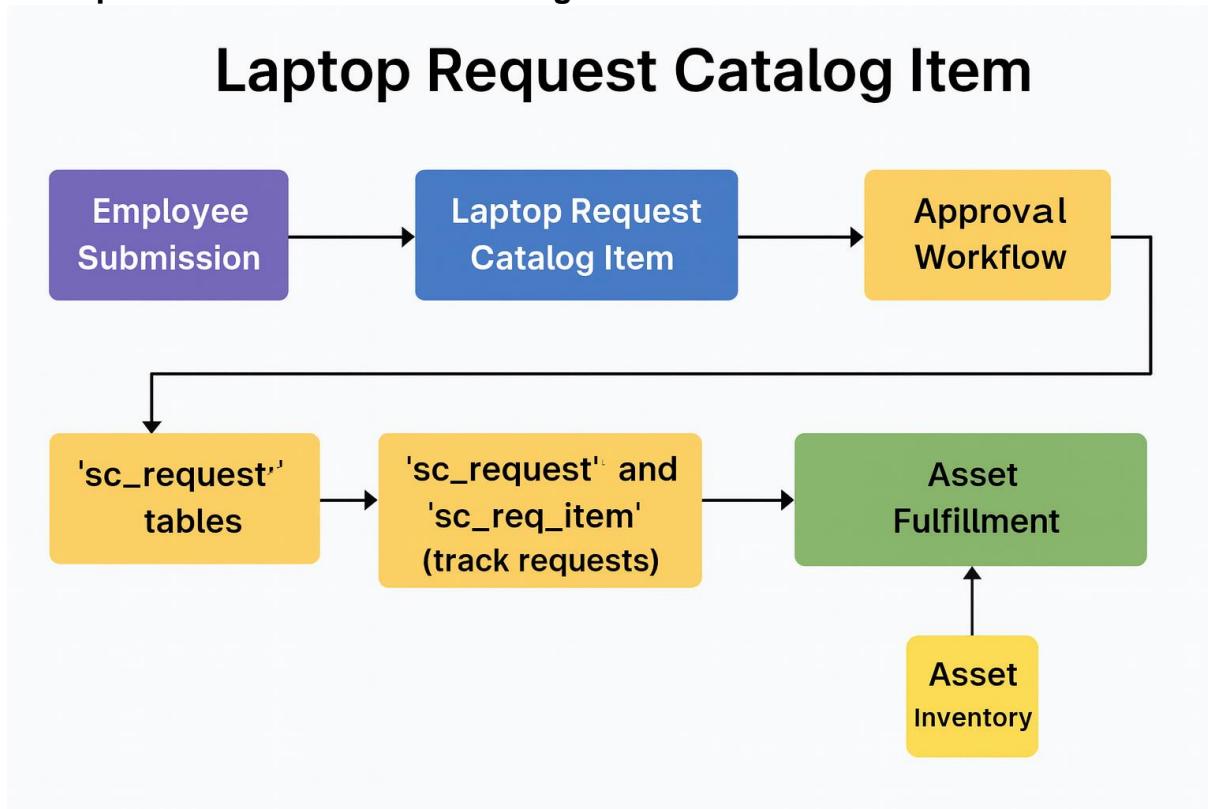


Figure 1: Architecture of Laptop Provisioning Flow

Reference: <https://github.com/Shameerasammu/Laptop-request-catalog-item-servicenow>