

Project Design Phase

Solution Architecture

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Team ID	NM2025TMID07861
Project Name	Laptop Request Catalog Item
Maximum Mark	4 Marks

Solution Architecture

Goals of the Architecture:

- Digitize and automate the laptop request process through the Service Catalog.
- Ensure accuracy and dynamic data entry using **UI Policies** and **Catalog Client Scripts**.
- Improve operational efficiency by minimizing manual approvals.
- Enable transparency with real-time request tracking and status visibility.

Key Components:

- **Service Catalog Item (Laptop Request):**
Serves as the main entry point for employees to request laptops.
- **Catalog UI Policies:**
Dynamically control field visibility, mandatory inputs, and field behavior.
- **UI Actions:**
Offer custom buttons like “Reset Form” and “Submit Request” for better usability.
- **Workflow / Flow Designer:**
Automates the end-to-end approval and fulfillment process.
- **ServiceNow Tables:**
Store details such as request data, approval status, and historical logs.

Development Phases:

1. Create a new **Service Catalog Item** titled “Laptop Request.”

2. Define and configure catalog variables like *Laptop Type*, *Department*, and *Justification*.
3. Apply **UI Policies** to dynamically show or hide fields based on user inputs.
4. Add **UI Actions** (e.g., Reset Button) to enhance the form experience.
5. Design an automated **approval workflow** involving the manager and IT fulfillment team.
6. Conduct testing to ensure form behavior, approval routing, and tracking work as expected.

Solution Architecture Description:

The Laptop Request Catalog Item architecture in **ServiceNow** is designed to provide a smooth and automated experience for employees requesting laptops. It combines **UI Policies**, **Client Scripts**, and **Workflows** to ensure a responsive and efficient process.

When a user fills out the catalog form, **UI Policies** automatically adapt field visibility based on selected options such as laptop type or role. **UI Actions** simplify interactions by allowing quick reset or submission. Once submitted, the request follows a pre-defined **approval and fulfillment workflow**, handled by the respective manager and IT team.

This architecture enhances **data accuracy**, **approval speed**, and **process transparency** while reducing repetitive manual tasks. It enables administrators to efficiently manage laptop allocations, monitor request statuses, and maintain comprehensive records.

Example – Solution Architecture Diagram:

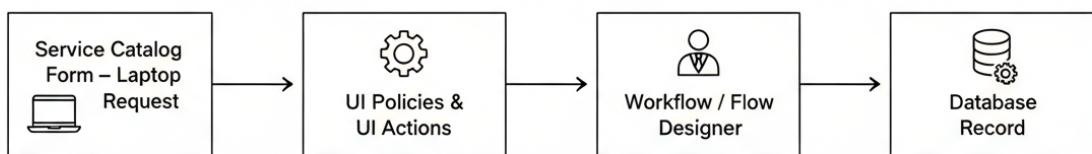


Figure 1: Architecture and data flow of the Laptop Request Catalog Item application

Reference:

[ServiceNow Developer Documentation – Catalog Item Design](#)