Project Design Phase

Solution Architecture

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Team ID: NM2025TMID04060
Project Name: Laptop Request Catalog Item

Solution Architecture:

Goals of the Architecture:

• Streamline the laptop request and approval process through automation.
• Provide real-time tracking of requests and approvals.
• Maintain data accuracy between request, approval, and asset allocation modules.
• Reduce manual intervention and delays in laptop procurement.

Key Components:

• **Service Catalog Item:** "Laptop Request" form to capture user requirements.
• **Workflow & Approval Engine:** Automates approval routing to managers and IT.
• **Notification System:** Sends real-time updates for submission, approval, and fulfillment.
• **Asset Management Integration:** Links the approved request to the laptop inventory for automatic asset allocation.
• **ServiceNow Tables Used:**

- sc_cat_item (catalog item definition)

- sc_req_item (individual request records)

- alm_asset (hardware inventory management)

- sys_user (employee data and assignment tracking)

Development Phases:

1. Design the *Laptop Request Catalog Item* form with required fields (model, specification, justification, priority).

2. Configure the approval workflow to route requests first to the manager and then to the IT asset team.

3. Integrate asset allocation rules to automatically update the inventory upon request fulfillment.

4. Implement email and portal notifications for every stage of the request lifecycle.

5. Test the end-to-end process to validate functionality and ensure seamless user experience.

⚙️ Solution Architecture Description:

The *Laptop Request Catalog Item* solution architecture is designed to automate and standardize the process of requesting laptops through the ServiceNow platform. It ensures that each request follows a defined lifecycle — from submission to approval, allocation, and closure.

At the core, the **Service Catalog Item** serves as the entry point for employees to submit their laptop needs. The **workflow engine** manages approvals dynamically based on reporting hierarchy. Once approved, integration with the **Asset Management** module updates the laptop's allocation status, ensuring that inventory records remain accurate.

This architecture promotes transparency and efficiency by providing status visibility to both employees and approvers. The use of native ServiceNow functionalities eliminates manual tracking, accelerates fulfillment, and enhances IT service management performance.

Overall, the *Laptop Request Catalog Item* architecture supports scalability, process reliability, and operational excellence across the organization's IT infrastructure.