

Proposed Solution

Date	28/10/2025
Team id	NM2025TMID01396
Project name	Laptop Request Catlog Item
Maximum mark	5 Marks

1. Overview

The proposed solution is to design and implement an end-to-end, automated "**Laptop Request Catalog Item**" within the ServiceNow platform. This solution will replace manual, untracked requests (such as via email) with a streamlined, modern, and digital-first process.

This solution will provide a single, user-friendly interface for employees to request hardware, while simultaneously automating the backend approval and fulfillment process. This ensures full traceability, enforces business rules, and improves efficiency for both the requester and the IT hardware team.

2. Solution Components

The solution is comprised of three main components:

A. The Request Interface (Service Portal)

The primary user-facing component will be a new **Service Catalog Item** built using the ServiceNow Catalog Item Designer. This form will be published on the **Service Portal**.

- **Form Variables:** The form will capture all required data using variables, including:
 - Requested For: A reference to the user who needs the laptop (defaults to the logged-in user).
 - Laptop Model: A choice list (e.g., Standard, Pro, Lightweight) that dynamically shows specs.
 - Business Justification: A mandatory text field explaining the need.
 - Required Software: A checklist of common applications to be pre-installed.
- **Form Logic:**
 - **UI Policies** will be used to make the form dynamic (e.g., making 'Justification' mandatory only upon submission, showing/hiding variables based on selections).
 - **Client Scripts** will be used for any advanced validation, if necessary.

B. The Automation Engine (Flow Designer)

Once the user submits the form, a server-side workflow built in **Flow Designer** will be triggered. This flow will automate the entire business process without manual intervention.

1. **Record Generation:** The system will immediately create a Request (REQ) record (the 'wrapper') and a Requested Item (RITM) record (which holds the specific request details).
2. **Approval Routing:** The flow will automatically look up the requester's manager (from the sys_user table) and generate an approval record. The manager will be notified via email and can approve or reject the request from the portal or their email.
3. **Fulfillment Task:**

- **If Approved:** The flow will generate a Catalog Task (SCTASK) and assign it to the 'IT Hardware' assignment group. This task will contain all the variables (laptop model, software, etc.) for the IT team to act on.
 - **If Rejected:** The flow will close the request, and no task will be created.
4. **Notifications:** The **Notification Engine** will be used to send automated email alerts to the requester at key stages:
- On Submission (Confirmation)
 - On Approval or Rejection
 - On Task Completion (Notification that the laptop is ready)

C. The Data Model & Security

The solution will utilize the standard, out-of-the-box ServiceNow data model for service requests.

- **Tables Used:**
 - sc_request [Request]: The parent record for the request.
 - sc_req_item [Requested Item]: The record storing the form data and tracking the workflow.
 - sc_task [Catalog Task]: The work ticket for the IT Hardware team.
 - sysapproval_approver [Approval]: The record used to track the manager's approval.
- **Security:** Access will be controlled by standard ServiceNow ACLs (Access Control Lists). Only authenticated users will be able to submit requests, and only the designated manager will be able to approve them.

3. Conclusion

This proposed solution directly meets all functional and non-functional requirements. It provides a robust, secure, and highly usable system that automates the laptop request process from start to finish, ensuring operational consistency and providing full visibility for all stakeholders.