Laptop Request Catalog Item

A PROJECT REPORT

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ABSTRACT

This project presents the design and implementation of a **Laptop Request Catalog Item** in ServiceNow. The system streamlines the process of requesting laptops within an organization by enabling automated workflows, approval chains, and inventory tracking. By digitizing the laptop request process, the project enhances efficiency, reduces manual errors, and improves transparency in IT asset management.

I. INTRODUCTION

The ***Laptop Request Catalog Item*** streamlines the laptop procurement process by replacing manual, error-prone request methods with an automated ServiceNow-based workflow. The system enables users to submit structured requests, while embedded approval logic, validation rules, and notifications ensure efficient processing and accountability. This project demonstrates the application of service automation principles to enhance consistency, reduce delays, and improve IT service delivery within organizational environments.

II. PROBLEM STATEMENT

Traditional laptop request processes in organizations rely on manual communication and fragmented approval workflows, resulting in delays, inconsistent records, and limited request visibility. These inefficiencies hinder timely allocation of IT resources and increase administrative effort. To address this, there is a need for a centralized, automated ServiceNow-based solution that standardizes laptop requests, enforces approvals, and ensures accurate tracking throughout the request lifecycle.

III. OBJECTIVES

- **To design and develop a ServiceNow Catalog Item** that allows employees to request laptops through a structured and user-friendly digital form.

- **To automate the approval workflow**, ensuring that requests pass through managers, IT teams, and asset handlers without delays or manual follow-ups.
- **To capture accurate request information** such as laptop model, justification, department, and required date through well-designed variables and UI policies.
- **To enhance transparency and tracking** by enabling users and admins to monitor request status from submission to fulfillment.
- **To reduce manual effort** in hardware allocation by replacing traditional paperwork with a fully automated, system-driven process.
- **To improve organizational efficiency** by ensuring faster request processing, fewer errors, and standardization of laptop distribution.
- **To build a reusable and scalable configuration** packaged through Update Sets, allowing easy deployment across ServiceNow instances.
- **To validate the solution** through systematic testing to ensure reliable functionality, stable performance, and smooth end-user experience.

IV. METHODOLOGY

The development of the ***Laptop Request Catalog Item*** followed a structured sequence of configuration, migration, and validation activities.

- **Create Update Set:**
  - A new Update Set was created to capture all configuration changes for controlled tracking and migration.
- **Develop Catalog Item:**
  - The Laptop Request Catalog Item was created in the Service Catalog with appropriate name, description, and category settings**.**
- **Add Variables:**
  - Required input fields (e.g., laptop model, justification, required date) were added to collect user data accurately.
- **Configure UI Policies:**
  - UI Policies were implemented to manage form behavior, including mandatory fields, visibility, and read-only conditions.

- **Create UI Actions:**
  - Custom UI Actions were added to support additional operations and improve user interaction with the form.
- **Export Update Set:**
  - The Update Set containing all configurations was exported as an XML file for deployment to another ServiceNow instance.
- **Login to Another Instance:**
  - The destination instance was accessed to validate the portability and consistency of the developed catalog item.
- **Retrieve Update Set:**
  - The exported Update Set was imported, previewed, validated, and committed in the new instance.
- **Test the Catalog Item:**
  - End-to-end testing was performed to verify request submission, workflow routing, UI behaviour, and notification accuracy.

V. SYSTEM ARCHITECTURE

The ***Laptop Request Catalog Item*** is structured using a multi-layered architecture within the ServiceNow platform to ensure efficient request handling and automated workflow execution.

- **User Interface Layer**
  - Provides the catalog form through which users submit laptop requests. This layer includes variables, input fields, and UI policies for dynamic form behavior.
- **Workflow Processing Layer**
  - Manages automated request routing, approval sequences, task generation, and script-based logic. It ensures consistent processing without manual intervention.

- **Data Management Layer**
  - Stores all request-related information in standard ServiceNow tables such as *sc_request*, *sc_req_item*, and *task*, along with variable data. This layer enables traceability and accurate record-keeping.
- **Integration Layer**
  - Handles internal platform interactions, including notifications, approval mechanisms, and optional linkage to asset management modules.
- **Deployment and Version Control Layer**
  - Uses Update Sets for packaging, exporting, and migrating configurations between instances, ensuring controlled and reproducible deployment.
- **Security Layer**
  - Implements role-based access control, data restrictions, and approval validations to safeguard the request process and ensure authorized handling.

VI. RESULTS AND DISCUSSION

The "***Laptop Request Catalog Item"*** operated reliably, with all form components, UI controls, and workflows performing as designed. Migration through Update Sets showed full compatibility across instances. Testing verified accurate request submission, consistent approval routing, and stable system behavior. The solution effectively streamlined the laptop request process, reduced manual effort, and enhanced procedural traceability.

VII. CONCLUSION

The "Laptop Request Catalog Item" system demonstrates the flexibility and power of ServiceNow in digital service automation. By transforming manual laptop request processes into a streamlined workflow, organizations can ensure better efficiency, accountability, and user satisfaction. The project also highlights how ServiceNow can be adapted beyond typical ITSM activities, reinforcing its role as a powerful enterprise platform.

VIII. OUTPUT LINKS

Drive Video Link:

https://drive.google.com/file/d/1bbY36jBiKojlT9Jwo2lYRn_7JicwyI1V/view?usp=sharing

https://res.cloudinary.com/de1tywvqm/video/upload/v1761988353/Laptop_Request_Catalog_Item_qxskle.mp4

GitHub Link: https://github.com/anantha-ctrl/Laptop-Request-Catalog-Item-ServiceNow/