# **PROJECT REPORT**

#### INTRODUCTION

**PROJECT: Laptop Request Catalog Item** 

#### **PROJECT OVERVIEW:**

The Laptop Request Catalog Item is a key component of the Service Now Service Catalog module, designed to streamline and automate the process of requesting, approving, and provisioning laptops for employees across an organization. This project aims to simplify IT asset management and improve employee satisfaction by providing a self-service portal where users can efficiently request laptops tailored to their roles and needs. The catalog item provides an intuitive and user-friendly interface within the Service Portal, enabling employees to choose from a predefined list of laptop models, specifications, and accessories. It supports configurable options such as processor type, RAM size, storage capacity, and additional peripherals (e.g., docking stations, external monitors). Based on user roles and department policies, the system can dynamically present appropriate options using UI policies and catalog client scripts.

Upon submission, the request follows a predefined workflow that includes multi-level approvals (if required), budget validation, asset availability checks, and automatic task assignment to the IT fulfillment team. Notifications and status updates are sent throughout the request lifecycle to ensure transparency and timely delivery. The request record is also integrated with CMDB to update asset records automatically once the laptop is provisioned. The Laptop Request catalog item is a self-service portal solution that enables employees to request new laptops or upgrades to existing laptops. The solution aims to streamline the laptop procurement process, reduce manual errors, and improve the overall employee experience. This project involves designing, developing, and deploying a self-service catalog item within the organization's IT Service Management (ITSM) platform to enable employees to request laptops efficiently.

The project supports scalability by allowing easy addition of new laptop models, customizable workflows per business unit, and localization for global deployment. It ensures data security and compliance through role-based access, audit trails, and secure record handling. By implementing this catalog item, organizations reduce manual effort, minimize errors, improve procurement efficiency, and enhance the employee onboarding and IT support experience. It aligns with modern digital transformation goals, enabling faster IT service delivery and contributing to a seamless digital workplace environment.

#### **PURPOSE:**

In ServiceNow a laptop re-quest catalog item serves the purpose of allowing users to request a new laptop or a laptop-related service, such as a laptop upgrade or replacement, through a standardized and automated process. This catalog item streamlines the request, approval, and fulfillment process for laptop-related needs within an organization, ensuring consistency and efficiency. The Laptop Request Catalog Item is designed to allow employees to request laptops through a self-service portal, minimizing the dependency on manual communication with IT staff. It provides users with a guided form to select laptop types, configurations, and

necessary peripherals. The request then follows a predefined workflow that includes approval chains, asset availability checks, and task assignments to fulfill the request efficiently. By implementing this catalog item, the organization benefits from better visibility and control over hardware distribution, automated approvals, and real-time tracking of requests. It also integrates with other ServiceNow modules like Asset Management, CMDB (Configuration Management Database), and Procurement to ensure data consistency, cost tracking, and inventory optimization.

#### **IDEATION PHASE**

#### PROBLEM STATEMENT:

Employees in the organization need a quick and efficient way to request laptops for work. The current process is manual and prone to delays, with no dynamic form behavior to guide users or ensure accurate data collection. To address this, a Service Catalog item needs to be created, allowing users to easily request a laptop, with dynamic fields, clear instructions, the current laptop request process is inconsistent, and lacks centralized tracking. and additional functionality like resetting the form if needed. The solution should also ensure all changes are tracked for governance and deployment.

#### **OBJECTIVE:**

The Laptop Request Catalog Item Project is to streamline and automate the process through which employees or users within an organization can request new laptops or related hardware efficiently via the ServiceNow platform. This initiative aims to reduce manual handling, improve request visibility, Enhance User Experience, Standardize the Request Process, Improve Operational Efficiency, Support Scalability and Flexibility, and ensure timely fulfillment of hardware requirements. Ensure that all laptop requests follow a predefined, uniform workflow covering approvals, notifications, and fulfillment leading to consistency across the organization. Incorporate necessary validations, policies, and role-based access to ensure that only eligible users request hardware in accordance with organizational standards.

#### **CHALENGES:**

Addressing these challenges requires careful planning, clear communication, and a well-defined process for managing laptop requests in ServiceNow.

- O Dynamic pricing: If the laptop price varies based on selected options, the catalog item needs to handle this dynamically.
- Limited choices: Restricting options too much can lead to dissatisfied users who can't find the specific laptop they need.
- Visibility and tracking: Users need to be able to easily track the progress of their laptop request.
- O Data security: Ensuring the security of sensitive data, such as employee information and laptop configurations, is crucial.
- Technical issues: Technical Issues, such as errors or bugs, can impact the functionality and usability of the catalog item.
- o User Experience Issues :Complicated form layout causing confusion.
- o Lack of tooltips or instructions for end-users.

#### **SOLUTION:**

provides a streamlined and automated way for employees to request laptops through the ServiceNow Service Catalog. The Laptop Request catalog item allows users to select laptop models, configurations, and accessories based on their role or department needs. The request form includes dynamic variables and UI policies to simplify the input process, ensuring accurate and complete data submission. Upon submission, a workflow is triggered to handle approvals from the reporting manager and IT department. Once approved, a task is generated for the IT team to fulfill the request. All updates are tracked through the platform, ensuring transparency and accountability. This solution reduces manual work, speeds up laptop provisioning, enhances user experience, and integrates with update sets for easy deployment across instances. It also includes automated email notifications, tracking, and audit.

#### REQUIREMENTS ANALYSIS

#### **Solution Requirement**

TEAM ID	LTVIP2025TMID30975
PROJECT NAME	Laptop Request Catalogs Item

#### **Function Requirements**

FR NO	Function	Sub Requirements (Story/Sub-Task)
	Requirement(Epic)	
FR-1	Update set	Update set includes all configuration components required for the Laptop Request Catalog Item in the Service Catalog. It enables users to request laptops with proper approvals, validations, and fulfillment processes.
FR-2	Service Catalog item	Laptop Request catalog item, enabling a streamlined and user-friendly laptop provisioning process.
FR-3	Add variables	variables setup required for the Laptop Request catalog item in ServiceNow. It supports user input and dynamic form behavior to streamline the laptop provisioning process.
FR-4	UI Polices	UI Policies that dynamically control the behavior of fields within the Laptop Request Catalog Item .Show or hide fields based on selected laptop type.
FR-5	UI Action	The UI Actions implemented to enhance user interaction and streamline request processing within the Laptop Request Catalog Item.

FR-6	Export Update Set	The update sets capture all configuration elements required for deploying the item and its related components.
FR-7	Login to another Instance	•Retrieved update sets should follow a standardized naming format. •Retrieving ensures that all configurations made in the source instance are available for review and target environment.
FR-8	Testing	•testing the Laptop Request Catalog Item to ensure all components function as expected across different user roles and interfaces. The goal is to validate the form behavior, workflows, approvals, and fulfillment processes.

#### **Non-Functional Requirements**

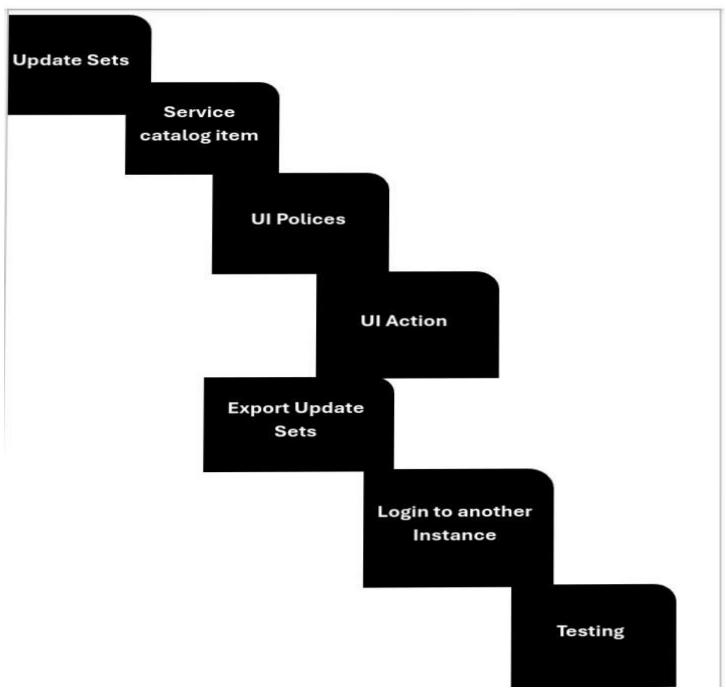
NFR No.	Non-Functional Requirements	Description
NFR-1	Usability	The usability requirements for the Laptop
		Request Catalog Item to ensure a user-friendly,
		efficient, and intuitive request experience. The
		goal is to minimize user effort reduce errors.
NFR-2	Security	the security requirements for the Laptop Request
		Catalog Item to ensure data protection, access
		control.
NFR-3	Reliability	Reliability is critical to providing a seamless and
		dependable user experience for requesting and
		fulfilling laptops.
NFR-4	Performance	Performance improves user satisfaction, reduces
		form abandonment, and ensures timely
		fulfillment of laptop requests.
NFR-5	Availability	Availability is essential for supporting business
		operations, especially during critical periods like
		onboarding or remote work provisioning.
NFR-6	Scalability	Scalability ensures that the system remains
		reliable and efficient as the organization grows.

#### **DATA FLOW DIAGRAM:**

A Data Flow Diagram (DFD) is used to visually represent how data moves within the Laptop Request Catalog Item system. It highlights processes, data stores, external entities, and data flows. Employees to request laptops through an automated service catalog workflow. The data flow refers to how information moves between users, systems, and processes from the moment a request is initiated to its fulfillment and closure. Each step involves the interaction of various entities and system components that transmit, process, and store data to ensure efficient request handling.

#### **Uses:**

- The data flow helps automate the submission and tracking of laptop requests.
- Data flow integrates with the Asset Management System to check laptop availability.
- Automated data routing to managers or approvers for validation.
- Enables automatic creation of fulfillment tasks for IT support staff.
- Supports automated notifications to stakeholders at each stage.



#### **TECHNOLOGY STACK:**

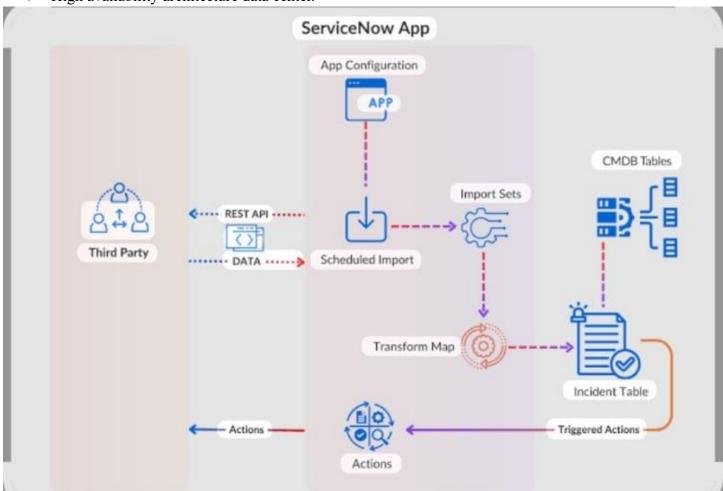
**SERVICENOW:** 

- ServiceNow is an American software company based in Santa Clara, California.
- Founded in 2003 by Fred Lundy.
- It was named as Glidesoft before.
- 2006 it is named as ServiceNow.
- It is SAAS (Software as a Service).
- ServiceNow is a Cloud Computing Platform for IT service management(ITSM), and business process automation (BPA) solutions which allows employee to work the way they want to, not how software dictates they have to.

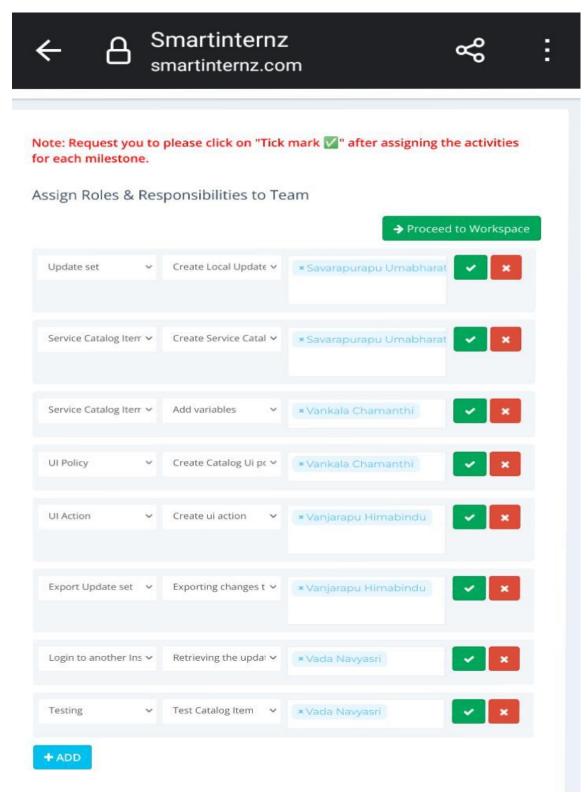
#### Architecture of service now

The ServiceNow architecture is a multi-layered cloud-based architecture designed to deliver scalable, secure, and flexible enterprise-level services for IT operations, business workflows, and digital transformation. It is built around the Now Platform, which serves as the foundation for all applications and modules within ServiceNow.

- ➤ This a Multi -instance.
- ➤ High availability architecture data center.



# **PROJECT PLANING & SCHEDULING**



Function Requirements	Use Story	No	Team Members
	-	Activity	

Update Sets	Update Sets Update Sets	1	S. Umabharathi
C paule Sels	developers and administrators	1	S. Cinaonaratin
	_		
	can ensure that every system		
	change is aligned with a		
	documented business		
	requirement or feature request.		
	This approach also facilitates		
	easier tracking, testing, and		
	migration of changes between		
	development, test, and		
	_		
	production environments.		
Catalog item	As a employee, I want to be able	1	S.Umabharathi
	to request a laptop through the		
	self-service portal so that I can		
	efficiently and easily obtain the		
	hardware I need to perform my		
	job tasks.		
Add variables	Variables are essential for	1	V.Chamanthi
	capturing user input such as		
	laptop type, RAM size,		
	operating system, or		
	justification for the request.		
	When these variables are created		
	or modified, the configuration		
	changes need to be properly		
	tracked and managed		
Ui polices	As a user requesting a laptop, I	1	V.Chamanthi
	want the request form to		
	dynamically show or hide fields		
	based on my selections so that I		
	can efficiently and accurately		
	provide the necessary		
III A ation	information.	1	VIII and a land
UI Action	UI Actions are used to add	1	V.Himabindu
	custom buttons, links, or context menu items that allow users to		
	perform specific actions such as		
	submitting a request, canceling a form, or triggering custom		
	scripts.		
Export Update Sets	Multiple configuration elements	1	V.Himabindu
Daport Opulie octs	such as variables, UI policies,	1	v.11iiiauiiidu
	UI actions, workflows, and		
	captured in Update Sets. Once		
	development and testing are		
	complete in the development		
	instance, these Update Sets need		
	instance, these operate sets need	<u> </u>	l

	to be exported to staging or production environments to deploy the changes.		
Login to another Instance	Instance It is often necessary to log into another ServiceNow as test, staging, or deploy Update Sets, validate configurations, or perform end-to-end testing.	1	V.Navyasri
Testing	ServiceNow including variables, UI policies, UI actions, workflows, and approval rules it is critical to perform comprehensive testing to ensure the item functions correctly for end users. This testing phase is typically managed using a project tracking framework.	1	V.Navyasri

# **PROJECT DESIGN**

# Proposed Solutions Templates

S No.	Parameter	Description
1.	Problem statement	The current laptop request process is manual, time-consuming, and inefficient, leading to delays in laptop delivery and impacting employee productivity.
2.	Idea / solution description	To simplify and automate the process of requesting laptops within an organization by creating a user-friendly catalog item in ServiceNow. This enables employees to easily submit laptop requests.
3.	Novelty / Uniqueness	The Laptop Request Catalog Item is unique because it transforms a traditionally manual process into a smart, automated, and user-centric service.
4.	Social impact/customer Satisfaction	Social impact:
5.	Business Model	The Laptop Request Catalog Item follows a service-oriented business model within the IT Service Management (ITSM) framework,

		aiming to deliver efficient, scalable, and cost-effective hardware provisioning.	
6.	Scalability of the solution	e solution The Laptop Request Catalog Item is highly	
		scalable, making it suitable for organizations	
		of any size and adaptable to changing needs.	

# LAPTOP Request Catalog Item Milestone 1: Update Sets

### Update sets:

In ServiceNow, an update set is a group of configuration changes like business rules, UI policies, etc. that can be moved from one instance to another Instance.

### Purpose:

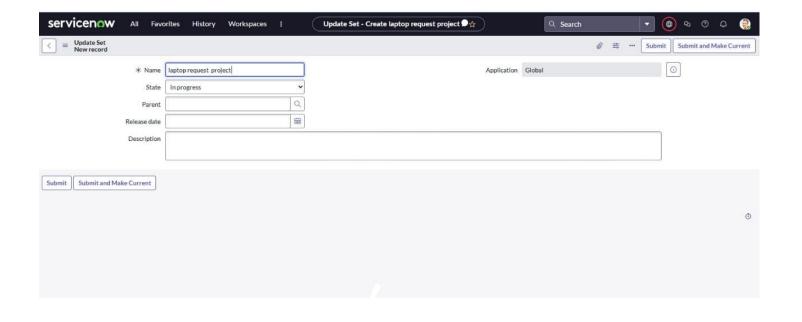
- Update Sets is to enable safe and efficient migration of customizations between ServiceNow instances.
- Transport changes: Move customizations and configurations from one environment to another.
- Version control: Track changes and maintain a version history.
- Change management: Manage and review changes before deploying to production.

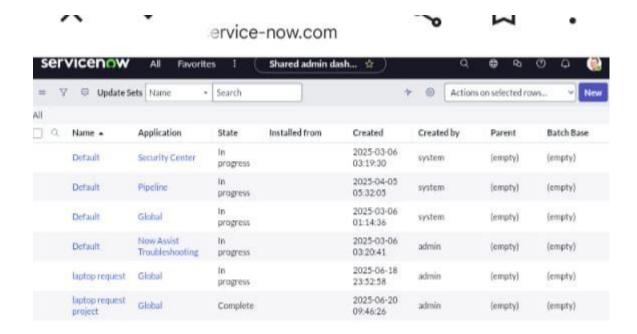
### Steps:

- 1. Open service now.
- 2.Click on All >> search for update sets
- 3. Select local update sets under system update sets
- 4.Click on new

Fill the following details to create a update set as: "Laptop Request"

- 5.Click on submit and make current
- 6.By clicking on the button it activates the update set.





### Millestone2 :Service Catalog Item

### Catalog Item:

A Catalog Item in ServiceNow is a specific service or product that can be requested by users through the self-service portal.

### Purpose:

A Catalog Item in ServiceNow is a self-service portal item that allows users to request specific services or products, such as laptops.

Improve efficiency: Automate approval workflows and fulfillment processes to reduce processing times.

### Steps:

- 1.Open service now.
- 2.Click on All >> service catalog
- 3. Select maintain items under catalog definitions
- 4.Click on New.
- 5. Fill the following details to create a new catalog item

Name: Laptop Request

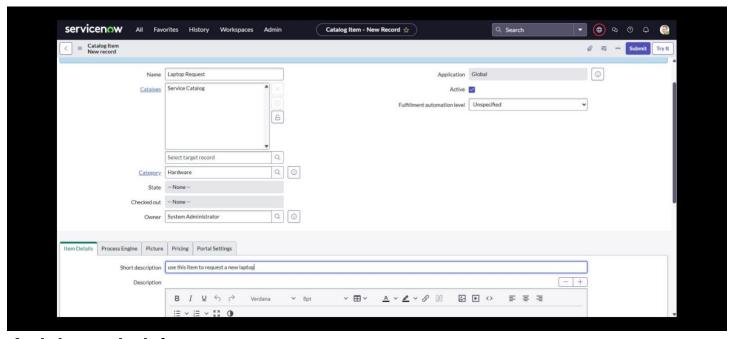
Catalog: service Catalog

Category: Hardware

Short Description: Use this item

To request a new laptop

6.Click on 'SAVE



### Add variables:

Variables are form elements like text boxes, dropdowns, checkboxes that collect data from the user when they submit the request.

#### Purpose:

- 1. Collect complete and accurate request details.
- 2. Streamline approval and fulfillment processes.
- 3. Avoid follow-up emails or confusion.
- 4. Automate tasks like routing, assignment, or approvals.

#### Steps1:

- •After saving the catalog item farm scroll down and click on variable(related list)
- •Click on new and enter the details as below

#### Variable 1:

Laptop Model Type: Single line text

Name: laptop model

Order100

- •Click on submit
- •Again click on new and add Remaining variables in the above process

Variable 2 Justification

Type: Multi line text

Name: justification

Order:200

Variable 3 Additional Accessories

Type: Checkbox

Name: additional\_accessories

Order 300

Variable 4: Accessories Details

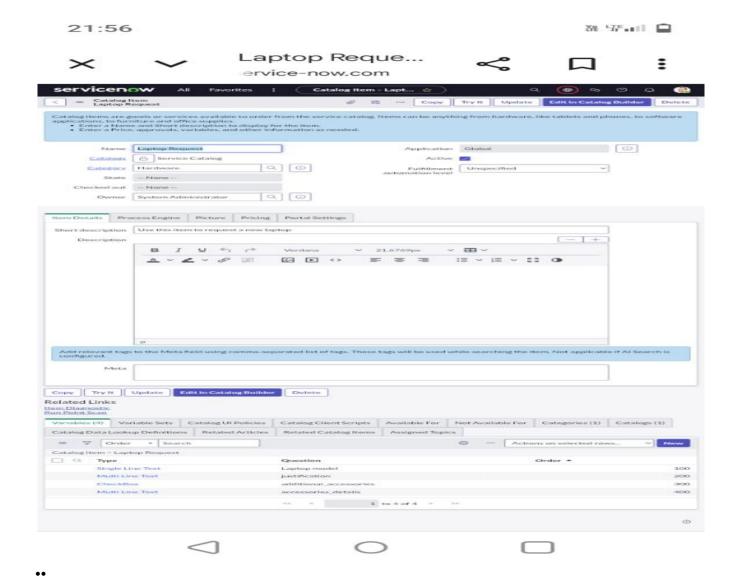
Type: Multi line text

Name: accessories\_details

Order:400

Step2:

•After adding above variable which are added to newly created catalog item



### **Milestone 3:UI Policies**

### **UI Policies:**

UI Policies in ServiceNow are used to dynamically control the behavior of variables .They enhance the experience, ensure data accuracy, and enforce business rules on the client-side

# Purpose:

- •Show/Hide Fields Display specific fields only when needed. E.g:show "Accessories" if checkbox is checked.
- •Make Fields Mandatory Make justification mandatory when a high-end laptop model is selected.

### Steps:

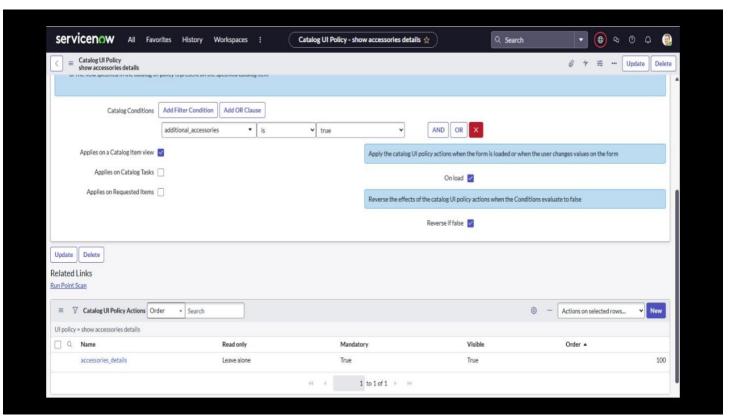
- 1.Click on all>> search for service catalog
- 2. Select maintain item under catalog definition
- 3. Search for laptop request which is created before
- 4. Select laptop request' and scroll down click on "Catalog Ui policies
- 5. In the catalog ui policies related list tab click on now
- 6. Give short description as: show accessories details
- 7. Set the Catalog Condition in the related list tab 'when to apply [field: additional accessories, operator: is, value true)
- 8. Click on save (do not click on submit
- 9. Scroll down and select 'catalog ui polices.
- 10. Then click on now button
- 11. Select variable name as accessories details

Order:100

Mandatory: True

Visible: True

12. Click on save and again click save button of the catalog ui policy form



### **Milestone 4:UI Action**

### **UI** Action:

UI Actions in ServiceNow are buttons, links, or context menu items that appear on forms, lists, or related lists. They allow users to perform specific actions like submitting, saving, approving, rejecting, or triggering scripts.

### Purpose:

- •Extend Functionality Add new buttons or links for business processes.
- •Improve User Workflow Help users take direct actions without navigating else where.
- •Control Visibility Show/hide buttons based on user role, state, or condition.

- 1.Open service now.
- 2.Click on All >> search for ui action
- 3. Select ui actions under system definition

#### 4.Click on new

5. Fill the following details to create ui action

Table: shopping cart(sc\_cart)

Order:100

Action name: Reset form

Client: checked

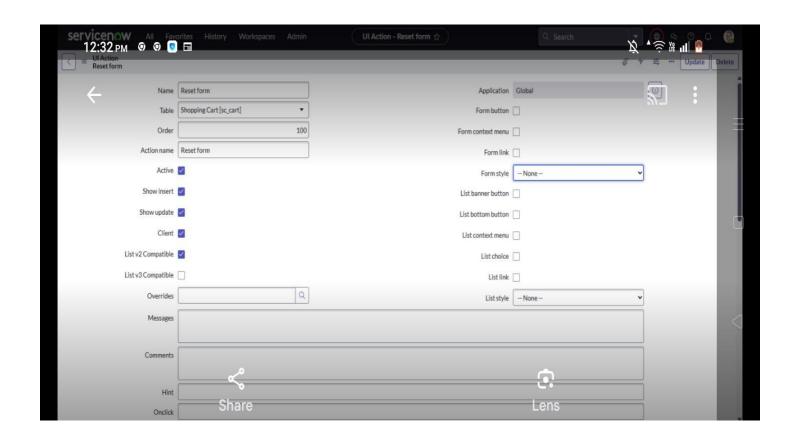
Script:

Function reset Form() {

G\_form.clearForm(); // Clears all fields in the form

Alert("The form has been reset.");}

Click on save.



# Milestone 5: Export Update Sets

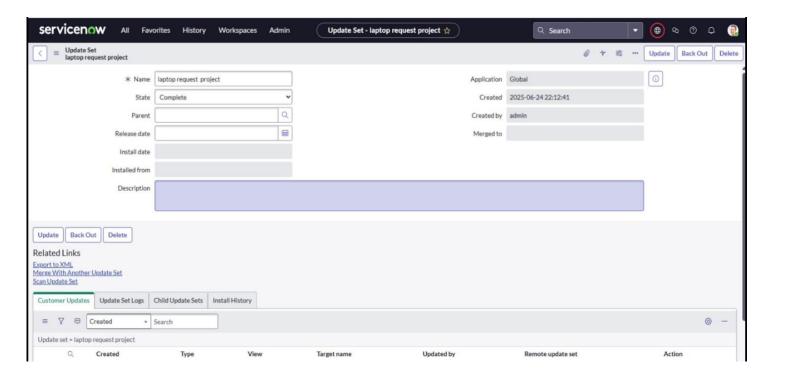
### **Exporting Changes To Another Instance:**

Exporting changes to another instance refers to the process of moving configurations (like a Laptop Request Catalog Item, its variables.

### Purpose:

Exporting changes to another instance in the context of a Laptop Request Catalog Item is to safely move and deploy the developed catalog item and its related configurations from one ServiceNow environment to another—such as from Development  $\rightarrow$  Testing  $\rightarrow$  Production—without manually recreating the work.

- 1.Click on All >> search for update sets
- 2. Select local update set
- 3. Select created update set i.e. 'Laptop Request Project'.
- 4.Set the state to 'Complete'.
- 5.In the related list Update tab, updates are visible which we perform under this update set.
- 6. Click on export to XML, it download one file.



# Milestone 6:Login to another Instance Retrieving the Update Sets:

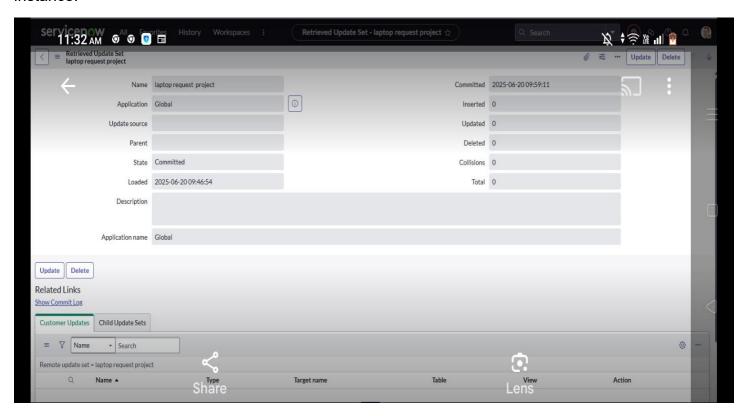
Retrieving Update Sets refers to the process of importing update sets from one ServiceNow instance into another, usually after they have been exported as an XML file from a development or staging environment.

### Purpose:

- •Move Configurations Bring over catalog items, variables, scripts.
- •Ensure Change Consistency Maintain the same version of configurations across multiple environment.

- 1. Open another instance in incognito window
- 2.Login with credentials

- 3.Click on all>> search for update sets
- 4. Select "Retrieved update set" under system update set
- 5.It open retrieved update set list and scroll down
- 6.Click on Import update set from XML
- 7. Upload the downloaded file in XML file
- 8. Click on Upload and it gets uploaded.
- 9. Open retrieved update set 'laptop request project'
- 10.Click on preview update set
- 11.And click on commit update set
- 12. And also see the related tab updates
- 13.After committing update set in this instance we get all updates which are done in the previous instance.





# Milestone 7:Testing

# Test Catalog Item:

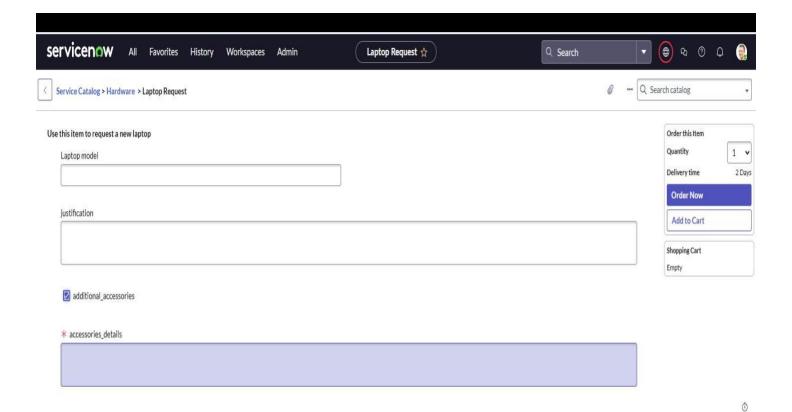
Means verifying that all its functionalities, workflows, and user interactions work correctly before it is deployed to production. This ensures that users can request laptops smoothly, and all backend processes like approvals and tasks are triggered as

### Purpose:

- •Verify Workflows Check if approvals, tasks, and routing processes are working properly.
- •Prevent Errors Catch and fix issues before users encounter them.
- •Improve User Experience Ensure form is easy to use and intuitive.

- 1. Search for service catalog in application navigator in target instance
- 2. Select catalog under service catalog
- 3. Select hardware category and search for 'laptop request' item.

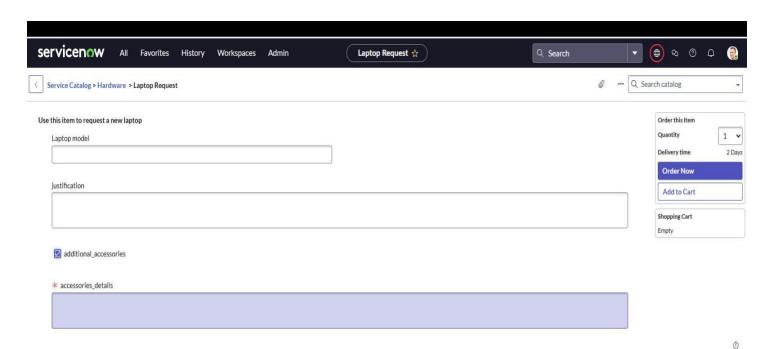
- 4. Select laptop request item and open it
- 5.It shows three variables only
- 6.As per our scenario, when we click on additional accessories checkbox then accessories details fields is visible and that should be mandatory
- 7. Now see the results, it fulfills our requirements.

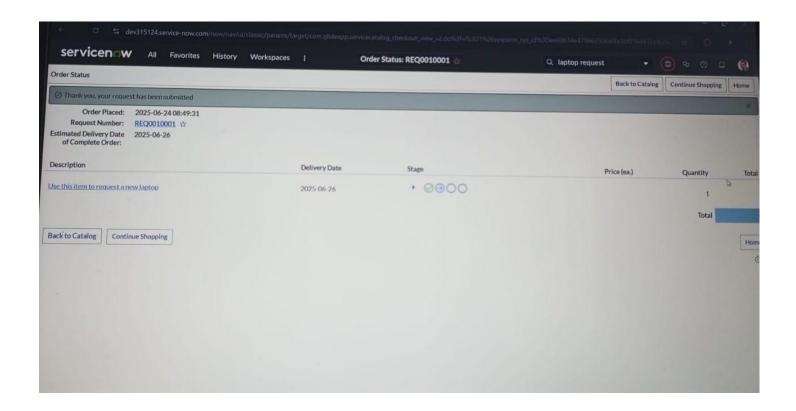


# **Functional and Performance Testing**

### **Testing Steps:**

- 1. Search for service catalog in application navigator in target instance.
- 2. Select catalog under service catalog
- 3. Select hardware category and search for 'laptop request' item.
- 4. Select laptop request item and open it
- 5.It shows three variables only
- 6.As per our scenario, when we click on additional accessories checkbox then accessories details fields is visible and that should be mandatory
- 7. Now see the results, it fulfills our requirements.





### ADVANTAGES and DIS ADVANTAGES

### Advantages:

- Streamlined Request Process: Users can easily request laptops through a self-service portal, reducing manual processes and eliminating the need for emails or paper forms.
- Reduces IT Workload :By automating repetitive tasks and routing approvals, IT staff can focus on higher-value tasks rather than manual provisioning.
- Scalability: New laptop models, configurations, or departments can be added to the catalog without rebuilding the process, supporting organizational growth.
- Security and Compliance: The structured process ensures only authorized personnel can request laptops, and approvals can be audited for compliance purposes.
- Visibility & Tracking :can track the status of their laptop request in real time, increasing transparency and reducing service desk inquiries.
- Improved data management: Captures and stores request data, enabling better tracking and reporting.
- Improved user experience: Provides a user-friendly interface for employees to request laptops, reducing frustration and errors.

### Disadvantages:

- Limited flexibility: The catalog item may not be able to accommodate unique or unusual laptop requests.
- ❖ Dependence on IT: Employees may still need to rely on IT for assistance with laptop requests, potentially leading to delays.
- ❖ Technical issues: Technical issues with the catalog item can prevent employees from submitting requests or cause delays.
- ❖ Security risks: If not properly configured, the catalog item may introduce security risks, such as unauthorized access to sensitive information.
- Maintenance requirements: The catalog item may require regular maintenance and updates to ensure it remains functional and secure.
- ❖ Limited Customization for Unique Needs :catalog items may not meet the specific hardware/software needs of all users or department.

### **Conclusion:**

The Laptop Request Catalog item is designed with a scalable architecture to support the growing needs of the organization. As demand increases, the system can seamlessly handle a higher volume of requests, additional user roles, and new hardware configurations without performance degradation. Its modular design allows easy integration with asset management, approval workflows, and reporting tools. This ensures that the solution remains robust, future-ready, and adaptable to organizational growth and evolving IT requirements. This project demonstrates how ServiceNow can be used to replace manual, error-prone processes with automated, efficient, and user-centric solutions. It not only Improves service delivery but also enhances employee satisfaction by providing a modern and streamlined request experience.

The catalog Item is integrated with workflows that handle approvals, inventory checks, and fulfillment, reducing manual intervention and human error. It enhances the efficiency of IT operations by providing structured request data, which supports analytics and forecasting. Moreover, it contributes to a standardized procurement approach across departments, reducing unnecessary spending and ensuring compliance with organizational policies. However, like any automated system, the Laptop Request Catalog Item also presents certain challenges, such as maintenance overhead, limited customization for unique needs, and dependency on accurate backend data. Despite these, the overall impact of this solution is highly beneficial. It not only simplifies the user experience but also strengthens the organization's IT service delivery capabilities. In conclusion, the Laptop Request Catalog Item serves as a scalable and reliable solution for managing hardware requests, supporting digital transformation, and promoting operational excellence within the enterprise.

The Laptop Request Catalog Item project successfully streamlines the process of requesting laptops within the organization by leveraging ServiceNow's Service Catalog capabilities. Through the implementation of a dynamic catalog item, the project ensures that users have an intuitive and user-friendly interface, reducing errors and improving efficiency. This project demonstrates how ServiceNow can be used to replace manual, error-prone processes with automated, efficient, and user-centric solutions. It not only improves service delivery but also enhances employee satisfaction by providing a modern and streamlined request experience.