

Laptop Request Catalog Item Final Report

1. INTRODUCTION

1.1 Project Overview

The Laptop Request Catalog Item project aims to transform the manual and delay-prone laptop request process into a dynamic, efficient ServiceNow Service Catalog experience. It provides role-based recommendations, dynamic form behavior, and automated workflows to improve accuracy and reduce administrative burden.

1.2 Purpose

This project ensures faster employee onboarding, accurate device provisioning, and reduced IT workload by leveraging ServiceNow's low-code platform to automate and streamline laptop requests.

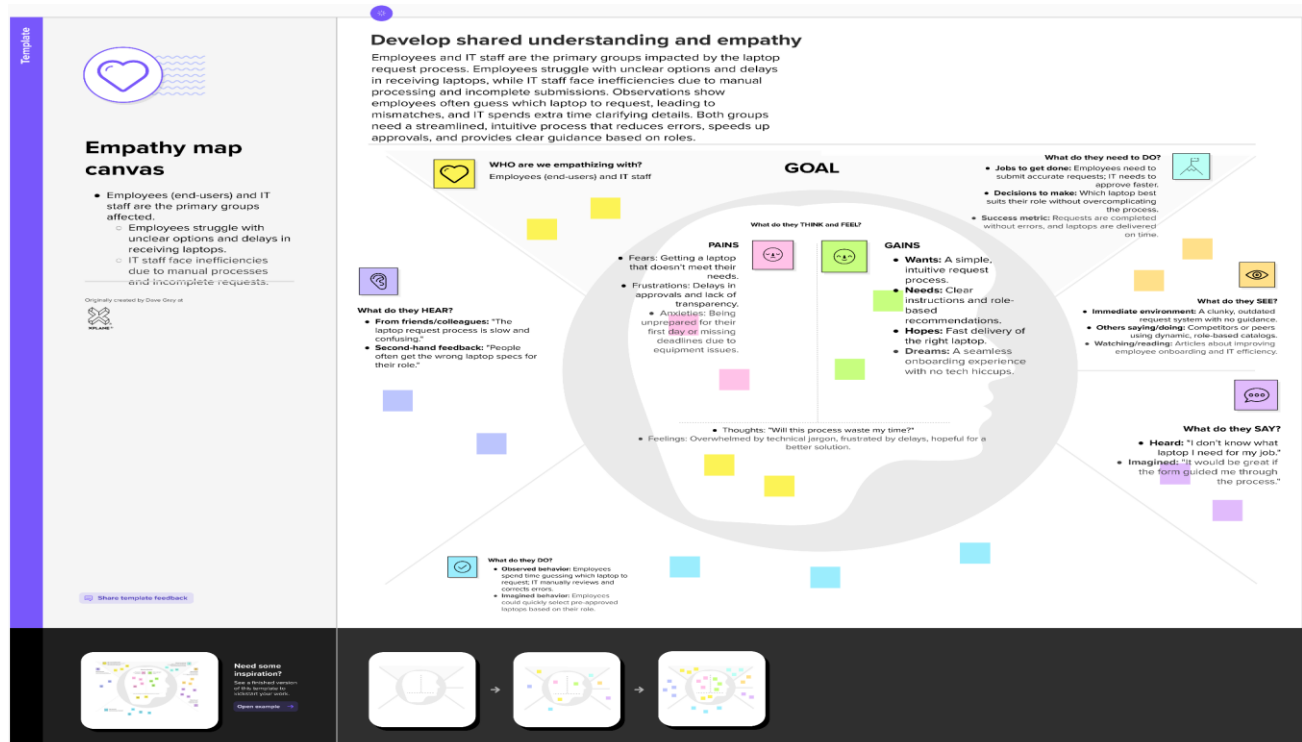
2. IDEATION PHASE

2.1 Problem Statement

Employees and IT teams struggle with unclear specifications, lack of role-based guidance, and inefficient approval processes when requesting laptops, leading to delayed onboarding and mismatched devices.

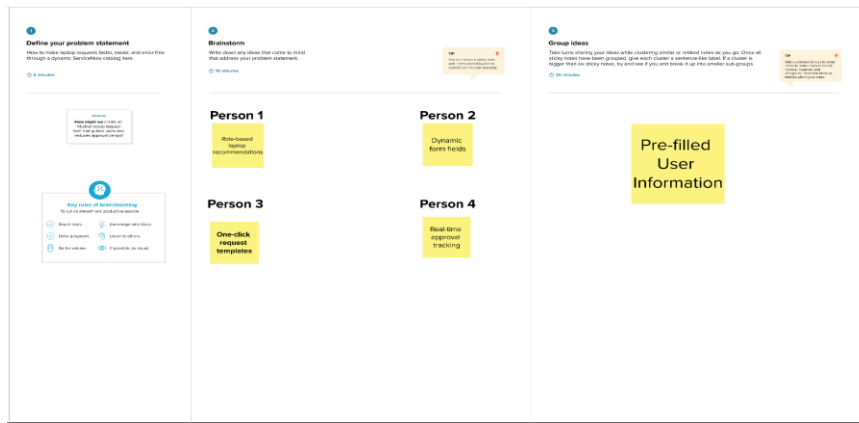
2.2 Empathy Map Canvas

- Says: "I'm lost in options, I need guidance."
- Thinks: "Will I get the right device?"
- Does: Manually submits requests, follows up via email.
- Feels: Anxious, frustrated.



2.3 Brainstorming

The team explored dynamic UI policies, role-based suggestions, approval workflows, inventory integration, and reset functionality to capture all improvement ideas before prioritizing.



3. REQUIREMENT ANALYSIS

3.1 Customer Journey Map

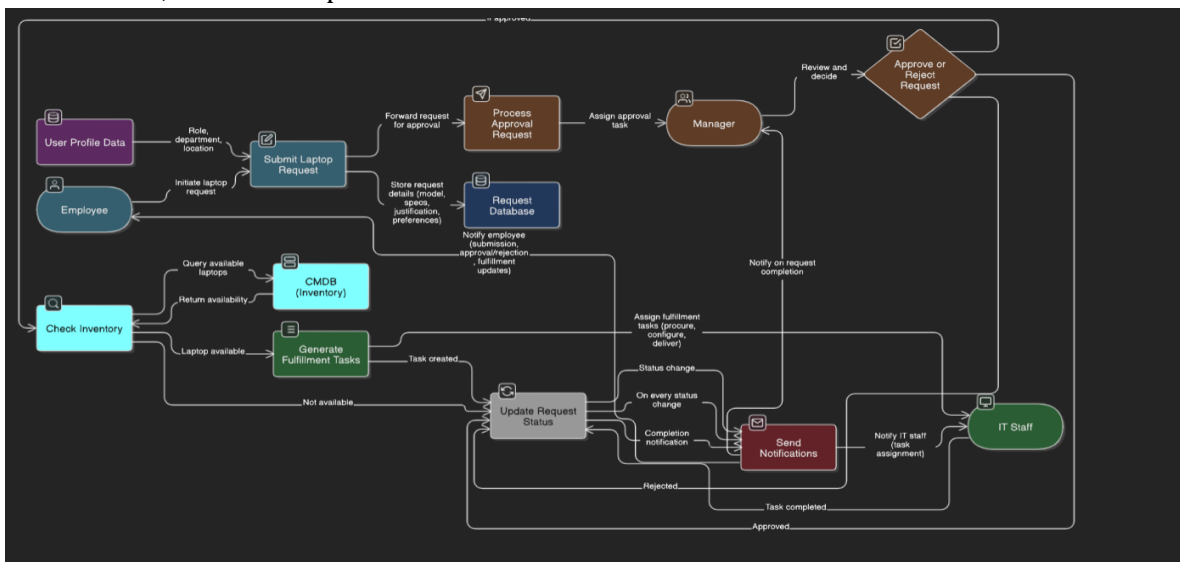
Users access the form, select role-based options, submit the request, receive notifications, and track status in real time.

3.2 Solution Requirement

- Custom catalog item with variables
- Dynamic field visibility and validation
- Approval workflow with comments
- Email notifications
- CMDB integration for inventory checks
- Real-time status tracking

3.3 Data Flow Diagram

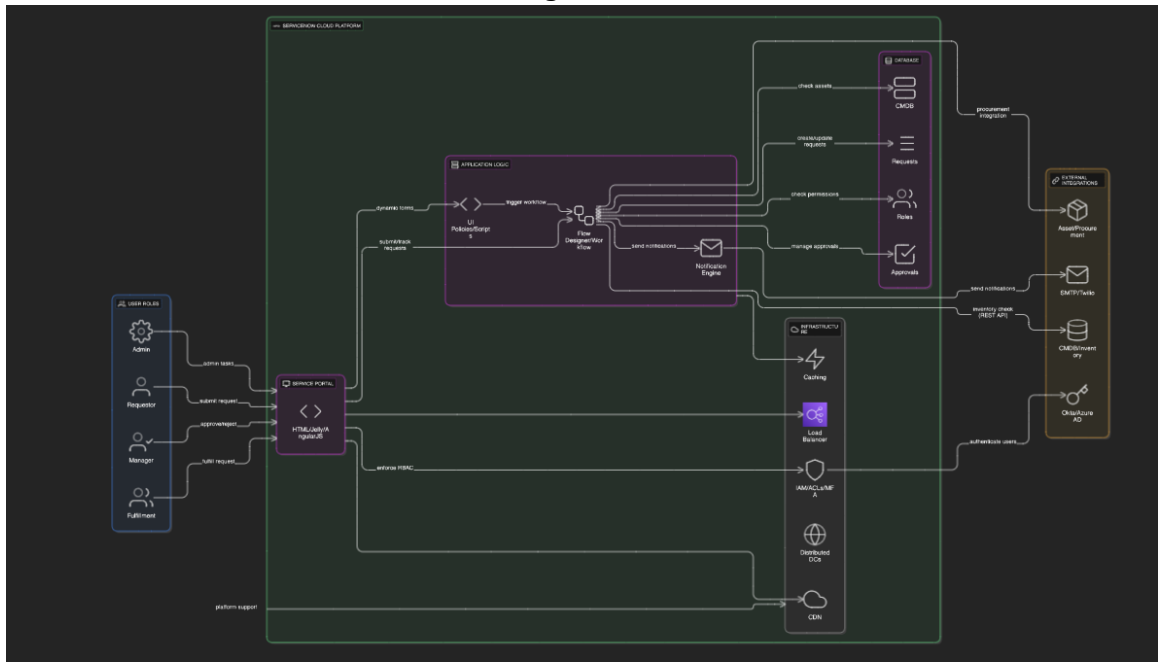
Data flows from the user interface through validation scripts to ServiceNow tables, triggering workflows, notifications, and status updates.



3.4 Technology Stack

- UI: ServiceNow UI Framework (Jelly, AngularJS)
- Logic: Glide Script, Flow Designer
- Database: ServiceNow CMDB
- Integration: REST APIs

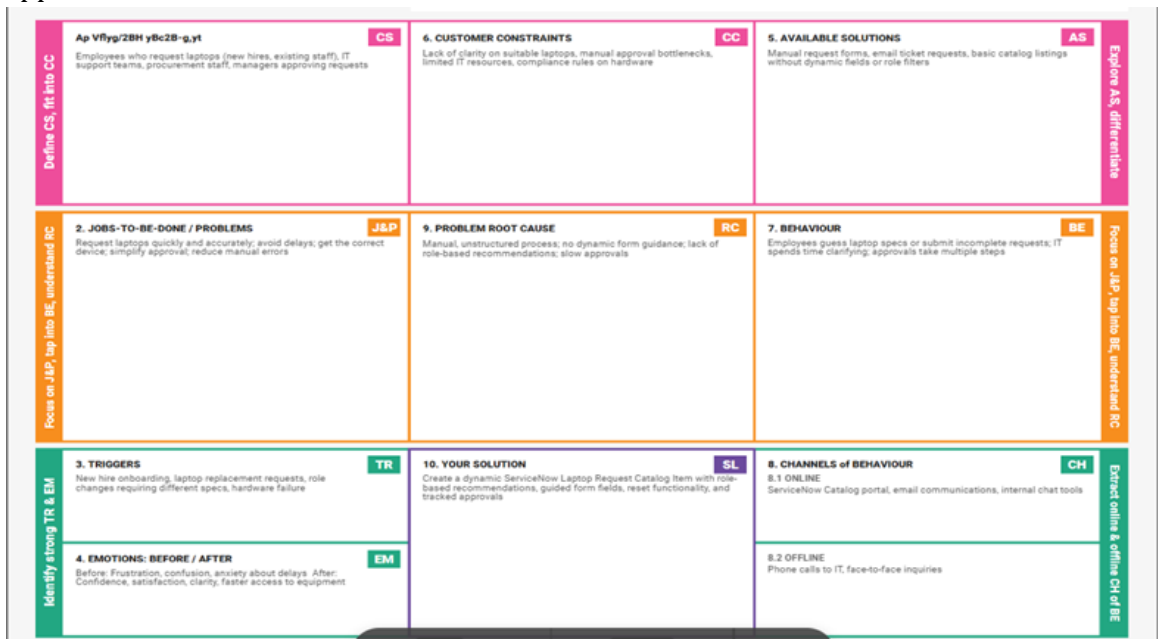
- Notifications: ServiceNow Notification Engine



4. PROJECT DESIGN

4.1 Problem–Solution Fit

The solution directly addresses delays and errors by guiding users with dynamic fields and automating approvals.



4.2 Proposed Solution

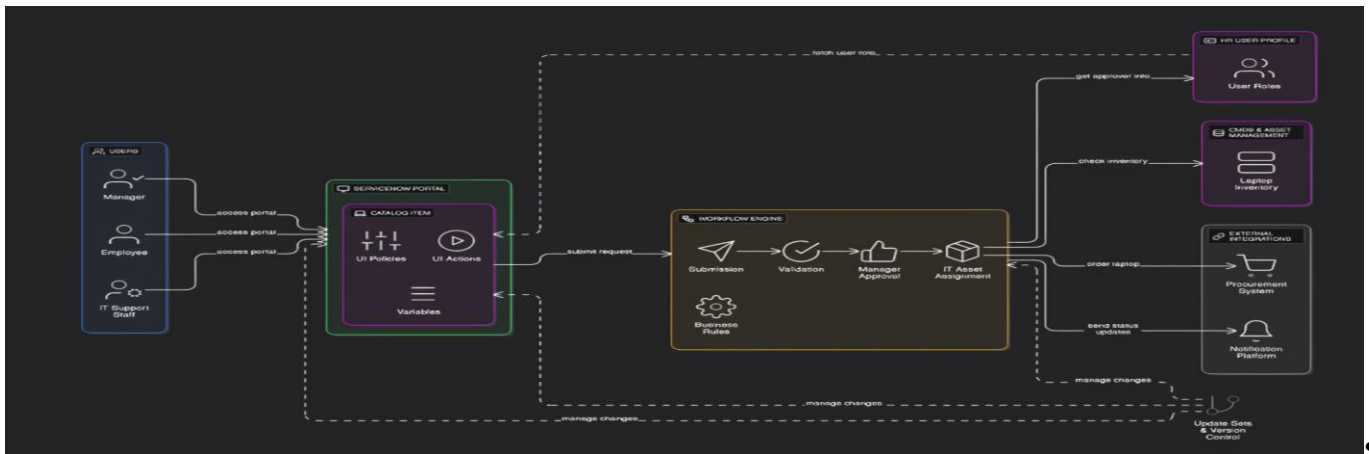
A ServiceNow Service Catalog item that provides:

- Role-based laptop recommendations
- UI policies for guided form behavior
- Automated approval workflows
- Inventory validation via CMDB
- Reset and export functionality

4.3 Solution Architecture

The architecture comprises:

- UI Layer: Catalog forms with variables and policies
- Logic Layer: Client scripts, business rules, workflow engine
- Data Layer: Task, Request, CMDB tables



Integration Layer: REST API calls to CMDB

5. PROJECT PLANNING & SCHEDULING

5.1 Project Planning

Completed over three sprints:

Sprint 1 (Jun 13-16): Form creation & UI logic (7 pts)

Sprint 2 (Jun 17-20): Approval workflows & notifications (5 pts)

Sprint 3 (Jun 21-25): Fulfillment tasks & CMDB integration (5 pts)

Velocity: 17 pts / 3 sprints = 5.67 pts/sprint

5.2 The team executed these milestones:

1. ServiceNow Instance Setup

- Signed up at developer.servicenow.com and requested a Personal Developer Instance (PDI)
- Filled necessary details; received instance access credentials via email
- Logged in and prepared the instance for development.

2. Creation of Local Update Set

1. Access Navigation

- Open ServiceNow and go to All → Update Sets.

2. Choose Local Update Sets

- Select Local Update Sets under the *System Update Sets* module.

3. Create New Update Set

- Click New to open the update set form.
- Enter a meaningful name, e.g., "Laptop Request".

4. Save and Submit

- Click Submit to save the new update set.

5. Activate the Update Set

- After submission, click Make Current.
- This ensures all your changes are tracked under this update set.

servicenow All Favorites History Workspaces : Update Set - Create Laptop Request Project 2 ☆

Search

Update Set New record

Name: Laptop Request Project 2 Application: Global

State: In progress

Parent

Release date

Description

Submit Submit and Make Current

5.3 Creation of Service Catalog Item:

1. Open service now.
2. Click on All >> service catalog
3. Select maintain items under catalog definitions
4. Click on New.

servicenow All Favorites History Workspaces Admin Catalog Items ☆

Search

service catalog

My Catalogs

My Categories

My Items

Maintain Catalogs

Maintain Categories

Renderers

Maintain Dynamic Categories

Maintain Items

My Content Items

Content Items

Ordered Item Links

Short description

Active

Roles

Catalogs

Category

Price

Type

Updated

Privacy Filter - X1 Carbon

Privacy Filter

Privacy Filter

Microsoft Access

Adobe Acrobat

This standard change template describes ...

Add/Remove users from group

Create, edit or convert PDF files

More connected ways of creating and shar...

Apple iPad 3

Request for Apple iPhone 13

Request for Apple iPhone 13 pro

For Apple iPhone 4/4S

Apple iPhone 5

Apple iPhone 5 Cable

Apple iPhone 6s

Apple iPhone 6s Plus

Apple iPhone 13

Apple iPhone 13 pro

Apple iPhone 4 Cable

Apple iPhone 5

Apple iPhone 5 Cable

Apple iPhone 6s

Apple iPhone 6s Plus

Activate Deactivate

1 to 20 of 188

- 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

- Click on 'SAVE'

5.4 Adding variables:

Step1:

- After saving the catalog item form scroll down and click on variable(related list)

- Click on new and enter the details as below

1. Variable 1:Laptop Model

Type: Single line text Name:

laptop model Order:100

- 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

2. Variable 3:Additional

Accessories Type: Checkbox

Name: additional_accessories

Order:300

3. Variable 4: Accessories

Details Type: Multi line

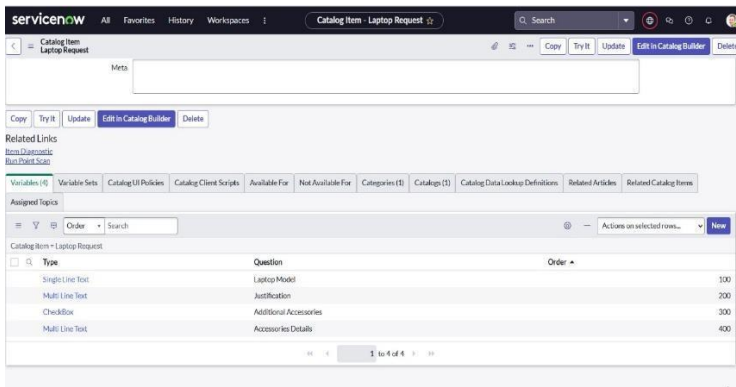
text

Name:accessories_details

Order:400

Step2:

- After adding above variable which are added to newly created catalog item
- Then save the catalog item form



5.5 Create Catalog Ui policies:

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 new
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 action'
10. Then click on new button
11. Select variable name as: accessories_details

Order:10

0 Mandatory:

True Visible :

True

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

The screenshot shows the 'Catalog UI Policy - show accessories details' form in ServiceNow. The 'Catalog Conditions' section has a filter for 'additional_accessories' with a value of 'true'. The 'Applies on a Catalog Item view' checkbox is checked. The 'Applies on Catalog tasks' checkbox is unchecked. The 'Applies on Requested Items' checkbox is unchecked. The 'On load' checkbox is checked. The 'Reverse the effects of the catalog UI policy actions when the Conditions evaluate to false' checkbox is checked. The 'Reverse if false' checkbox is checked. The 'Update' button is visible. Below the form, there is a 'Related Links' section with a link to 'Back to List'. The 'Catalog UI Policy Actions' section shows a table with columns: Name, Read only, Mandatory, Visible, and Order. The table contains one row: 'Laptop Request' with 'Read only' set to 'Leave alone', 'Mandatory' set to 'True', 'Visible' set to 'True', and 'Order' set to '300'. The 'Update' button is visible.

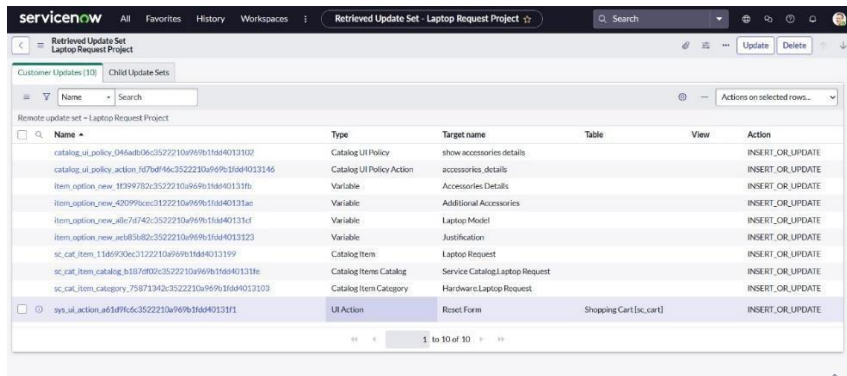
5.6 Exporting changes to another instances:

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

The screenshot shows the 'Update Set - Laptop Request Project' form in ServiceNow. The 'Name' field is 'Laptop Request Project'. The 'State' field is 'Complete'. The 'Parent' field is empty. The 'Release date' field is empty. The 'Install date' field is empty. The 'Installed from' field is empty. The 'Description' field is empty. The 'Application' field is 'Global'. The 'Created' field is '2025-06-24 06:51:45'. The 'Created by' field is 'admin'. The 'Merged to' field is empty. The 'Update' button is visible. Below the form, there is a 'Related Links' section with links to 'Export to XML', 'Merge With Another Update Set', and 'Save Update Set'. The 'Customer Updates (10)' section shows a table with columns: Created, Type, View, Target name, Updated by, Remote update set, and Action. The table contains one row: 'Laptop Request Project' with 'Type' set to 'Update Set', 'View' set to 'View', 'Target name' set to 'Laptop Request Project', 'Updated by' set to 'admin', 'Remote update set' set to 'None', and 'Action' set to 'Update'. The 'Export to XML' button is visible.

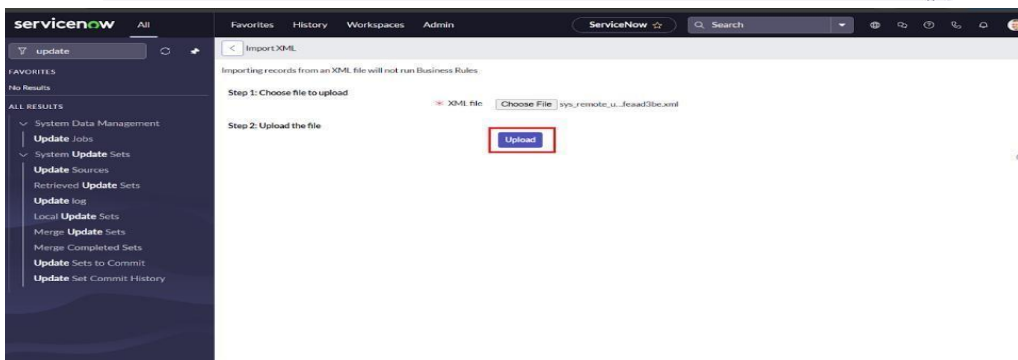
5.7 Retrieving the update set:

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



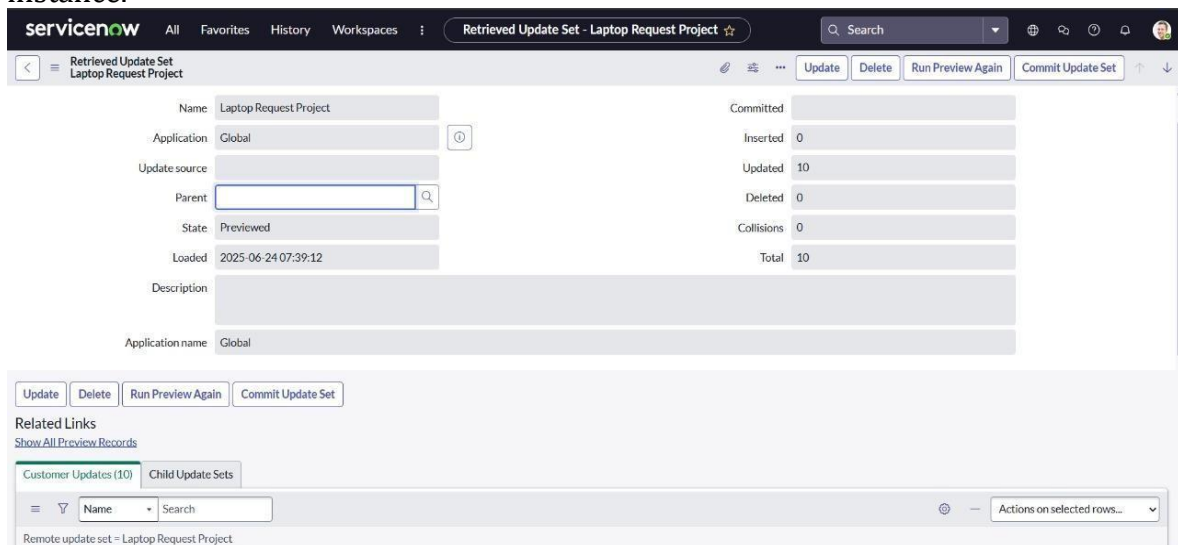
The screenshot shows the 'Retrieved Update Set - Laptop Request Project' page in ServiceNow. It displays a table of update sets with columns: Name, Type, Target name, Table, View, and Action. The table lists various update sets, including 'catalog_ui_policy', 'catalog_ui_policy.action', 'item_option_new', 'item_option_new.action', 'sc_cat_item', 'sc_cat_item.catalog', 'sc_cat_item.category', and 'sys_ui_action'. The 'Action' column for all entries is 'INSERT_OR_UPDATE'.

Name	Type	Target name	Table	View	Action
catalog_ui_policy_046ad09c3522210a69b1b1d4013102	Catalog UI Policy	show accessories details			INSERT_OR_UPDATE
catalog_ui_policy.action_107d8f46c3522210a69b1b1d4013146	Catalog UI Policy Action	accessories_details			INSERT_OR_UPDATE
item_option_new_1f399782c3522210a69b1b1d401311b	Variable	Accessories Details			INSERT_OR_UPDATE
item_option_new.action_42099f0cc3122210a69b1b1d40131ac	Variable	Additional Accessories			INSERT_OR_UPDATE
item_option_new.action_74742c3522210a69b1b1d40131cd	Variable	Laptop Model			INSERT_OR_UPDATE
item_option_new.action_3683d82c3522210a69b1b1d4013123	Variable	Justification			INSERT_OR_UPDATE
sc_cat_item_11d69f00cc3122210a69b1b1d4013199	Catalog Item	Laptop Request			INSERT_OR_UPDATE
sc_cat_item.catalog_b187d802c3522210a69b1b1d401311fe	Catalog Item: Catalog	Service Catalog/Laptop Request			INSERT_OR_UPDATE
sc_cat_item.category_75871342c3522210a69b1b1d4013103	Catalog Item Category	Hardware/Laptop Request			INSERT_OR_UPDATE
sys_ui_action.action_65d9f6dc3522210a69b1b1d40131f1	UI Action	Reset Form	Shopping Cart [sc_cart]		INSERT_OR_UPDATE



The screenshot shows the 'Import XML' interface in ServiceNow. It includes a sidebar with navigation options like 'System Data Management', 'Update Jobs', 'System Update Sets', 'Update Sources', 'Retrieved Update Sets', 'Update log', 'Local Update Sets', 'Merge Update Sets', 'Merge Completed Sets', 'Update Sets to Commit', and 'Update Set Commit History'. The main area shows 'Step 1: Choose file to upload' with a 'Choose File' button and a file path 'sys_remote_11_d6ad31bc.xml'. Below that, 'Step 2: Upload the file' has an 'Upload' button highlighted with a red box.

7. Upload the downloaded file in XML file
8. Open retrieved update set 'laptop request project'
9. Click on preview update set
10. And click on commit update set
11. And also see the related tab updates
12. After committing update set in this instance we get all updates which are done in the previous instance.



The screenshot shows the 'Retrieved Update Set - Laptop Request Project' page. It displays details for the update set, including Name, Application, Update source, Parent, State, Loaded, and Description. The 'State' is 'Previewed' and 'Loaded' is '2025-06-24 07:39:12'. The 'Description' field is empty. Below the details, there are buttons for 'Update', 'Delete', 'Run Preview Again', and 'Commit Update Set'. The 'Related Links' section includes a link to 'Show All Preview Records'. At the bottom, there is a table of 'Customer Updates (10)' with columns for Name, Search, and Actions on selected rows.

Name	Search	Actions on selected rows...
Remote update set = Laptop Request Project		

5.8 Test Catalog Item:

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.

Name	Type	Target name	Table	View	Action
catalog_ui_policy_044a80c3522210a9b164013102	Catalog UI Policy	show accessories details			INSERT_OR_UPDATE
catalog_ui_policy_action_167d4f6c3522210a9b164013148	Catalog UI Policy Action	accessories details			INSERT_OR_UPDATE
item_option_new_309978d3522210a9b164013116	Variable	Accessories Details			INSERT_OR_UPDATE
item_option_new_409978d3522210a9b164013116	Variable	Additional Accessories			INSERT_OR_UPDATE
item_option_new_4b74742c3522210a9b164013114	Variable	Laptop Model			INSERT_OR_UPDATE
item_option_new_4b74742c3522210a9b164013123	Variable	Justification			INSERT_OR_UPDATE
sc_cat_item_314b920e3122210a9b164013199	Catalog Item	Laptop Request			INSERT_OR_UPDATE
sc_cat_item_catalog_b187800c3522210a9b164013116	Catalog Item Catalog	Service Catalog Laptop Request			INSERT_OR_UPDATE
sc_cat_item_category_7187194c3522210a9b164013103	Catalog Item Category	Hardware Laptop Request			INSERT_OR_UPDATE
sys_ui_action_a63f9f1d3522210a9b164013111	UI Action	Reset Form	Shopping Cart (sc_cat)		INSERT_OR_UPDATE

1. As per our scenario, when we click on additional accessories checkbox then accessories details fields is visible and that should be mandatory
2. Now see the results, it fulfills our requirements.

6. FUNCTIONAL AND PERFORMANCE TESTING

6.1 Performance Testing

Validated auto-numbering, field visibility logic, workflow triggers, notification delivery, and status tracking without latency.

7. RESULTS

7.1 Output Screenshots

Screenshots of form, dynamic behavior, and CMDB integration verify successful implementation.

8. ADVANTAGES & DISADVANTAGES

Advantages:

- Streamlined requests
- Reduced errors
- Scalable framework

Disadvantages:

- Requires ServiceNow expertise
- Depends on platform licensing

9. CONCLUSION

The project delivered a robust ServiceNow solution that automates and enhances the laptop request process, improving efficiency and user satisfaction.

10. FUTURE SCOPE

- Mobile-friendly interface
- Advanced reporting dashboards
- Integration with HR and asset management systems
- Bulk request and analytics features