

# 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.

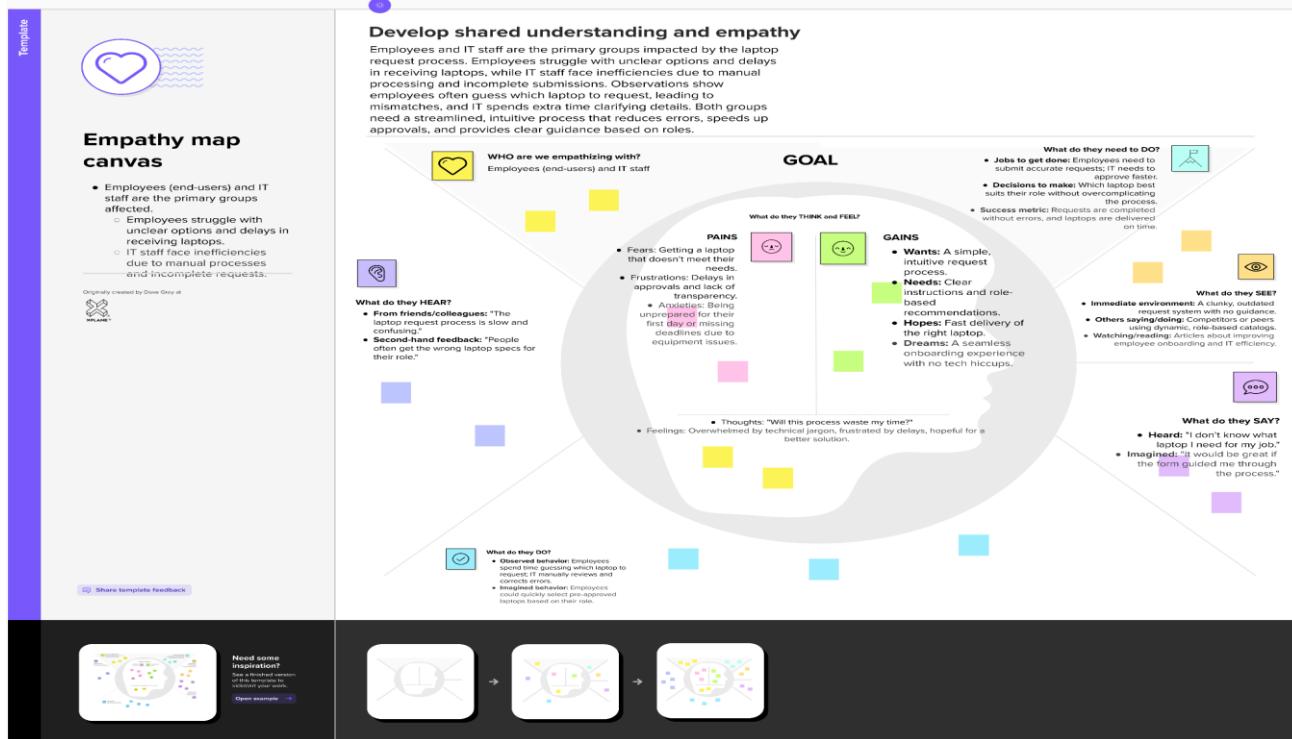
## 2. IDEATION PHASE

### 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.

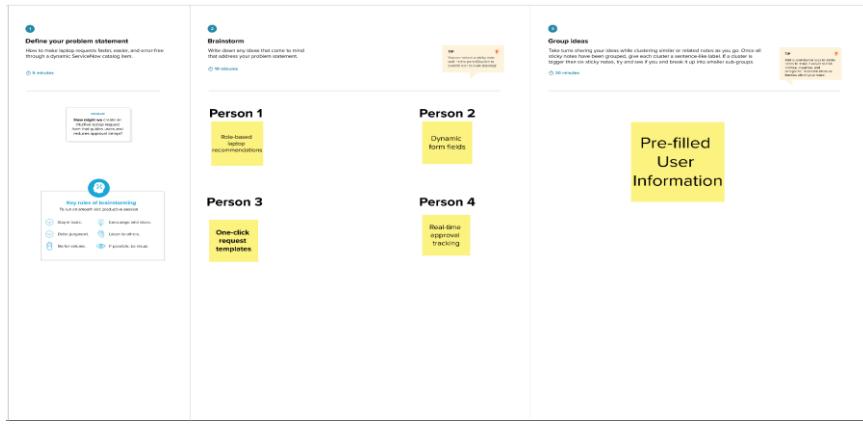
### 2.2 Empathy Map Canvas

- 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

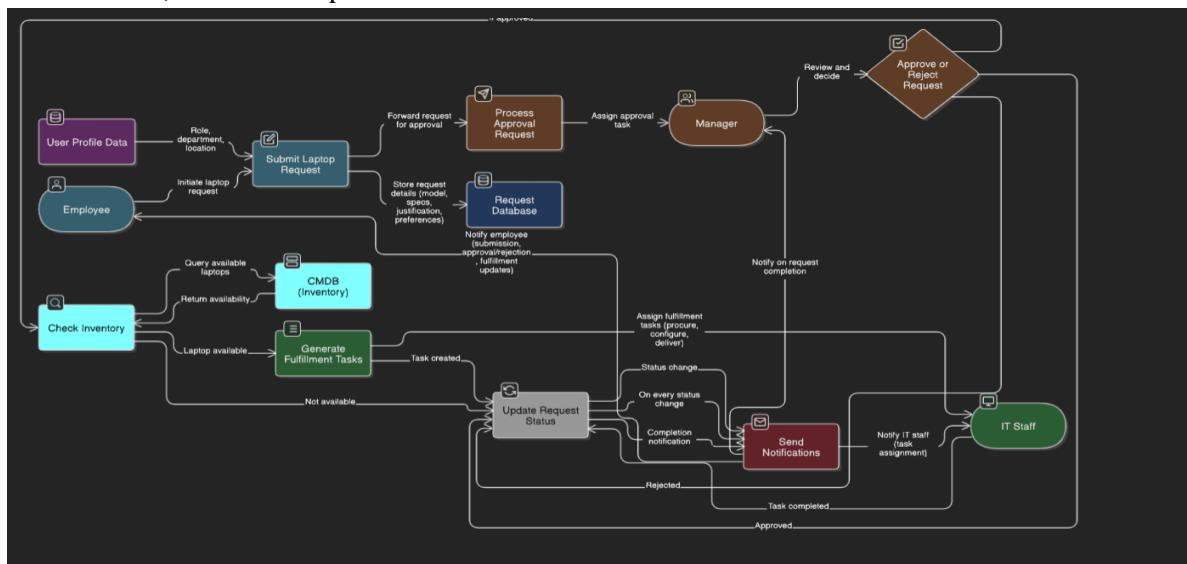
Users access the form, select role-based options, submit the request, receive notifications, and track status in real time.

### 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

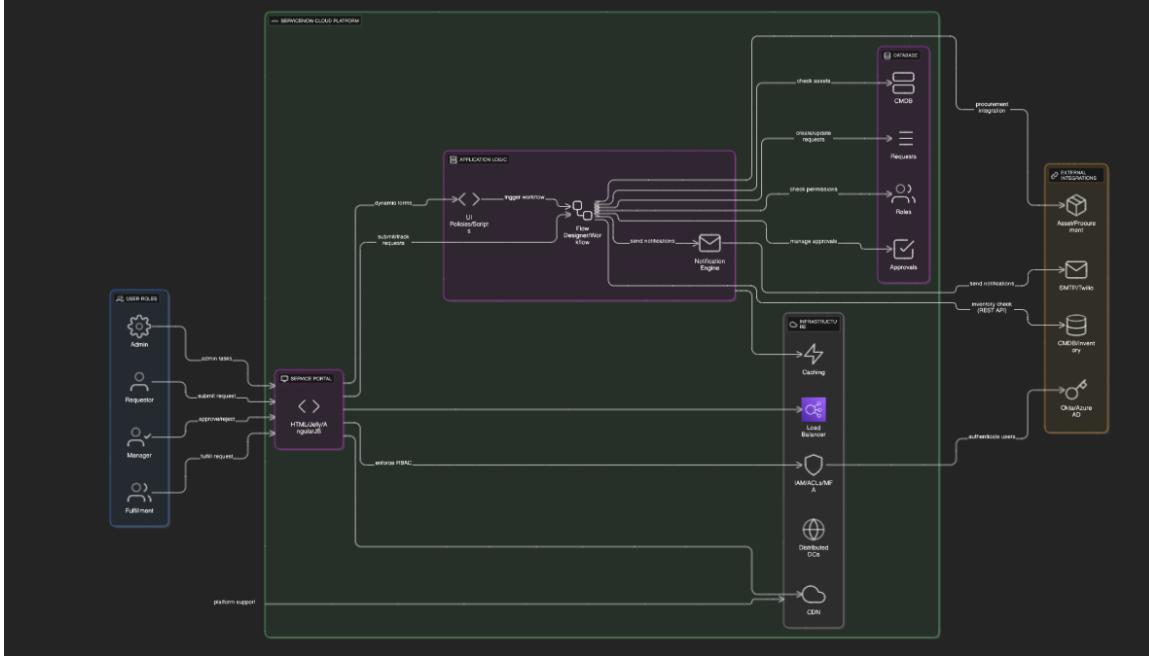
Data flows from the user interface through validation scripts to ServiceNow tables, triggering workflows, notifications, and status updates.



### 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.

<b>1. ASYMMETRY</b> Employees who request laptops (new hires, existing staff), IT support teams, procurement staff, managers approving requests	<b>CS</b>	<b>6. CUSTOMER CONSTRAINTS</b> Lack of clarity on suitable laptops, manual approval bottlenecks, limited IT resources, compliance rules on hardware	<b>CC</b>	<b>5. AVAILABLE SOLUTIONS</b> Manual request forms, email ticket requests, basic catalog listings without dynamic fields or role filters	<b>AS</b>
<b>2. JOBS-TO-BE-DONE / PROBLEMS</b> Request laptops quickly and accurately; avoid delays; get the correct device; simplify approval; reduce manual errors	<b>J&amp;P</b>	<b>9. PROBLEM ROOT CAUSE</b> Manual, unstructured process; no dynamic form guidance; lack of role-based recommendations; slow approvals	<b>RC</b>	<b>7. BEHAVIOUR</b> Employees guess laptop specs or submit incomplete requests; IT spends time clarifying; approvals take multiple steps	<b>BE</b>
<b>3. TRIGGERS</b> New hire onboarding, laptop replacement requests, role changes requiring different specs, hardware failure	<b>TR</b>	<b>10. YOUR SOLUTION</b> Create a dynamic ServiceNow Laptop Request Catalog item with role-based recommendations, guided form fields, reset functionality, and tracked approvals	<b>SL</b>	<b>8. CHANNELS of BEHAVIOUR</b> 8.1 ONLINE ServiceNow Catalog portal, email communications, internal chat tools	<b>CH</b>
<b>4. EMOTIONS: BEFORE / AFTER</b> Before: Frustration, confusion, anxiety about delays. After: Confidence, satisfaction, clarity, faster access to equipment	<b>EM</b>			<b>8.2 OFFLINE</b> Phone calls to IT, face-to-face inquiries	

### 4.2 Proposed Solution

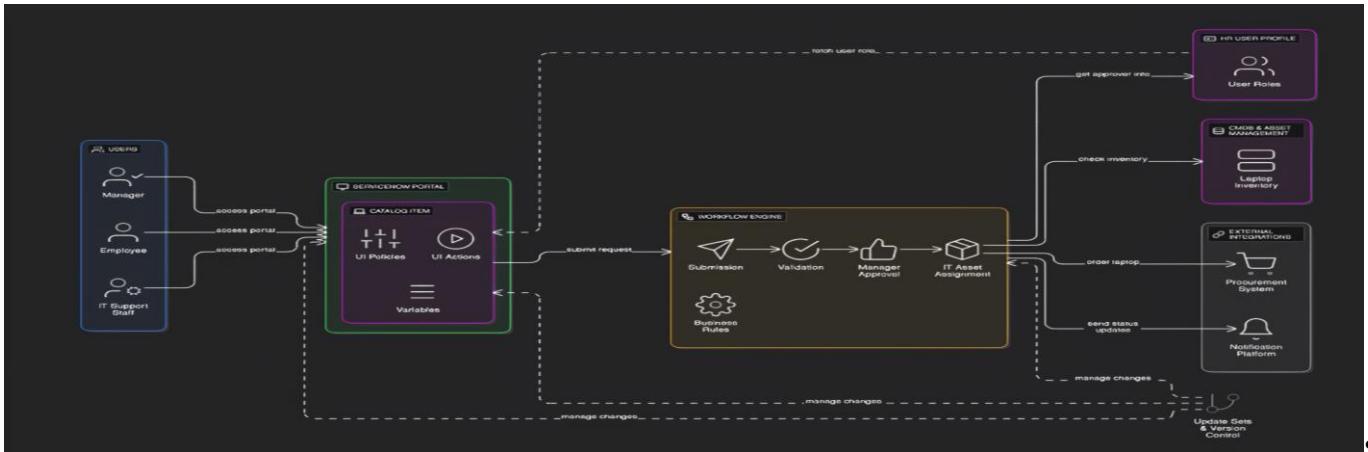
A ServiceNow Service Catalog item that provides:

- 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 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 Update Set - Create Laptop Request Project 2

Name: Laptop Request Project 2

State: In progress

Parent:

Release date:

Description:

Application: Global

Submit | Submit and Make Current

## 5.2 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.

Catalog Items

short description	Active	Roles	Catalogs	Category	Price	Type	Updated
X1 Carbon	true		Service Catalog	Peripherals	\$43.19	Item	2022-11-20 20:46:33
Microsoft Access	true		Service Catalog	Peripherals	\$42.23	Item	2022-11-20 20:46:33
Adobe Acrobat	true		Service Catalog	Peripherals	\$40.31	Item	2022-11-20 16:00:00
Network Standard Changes	true		Service Catalog	Software	\$139.99	Item	2022-11-20 20:46:33
Services	true		Service Catalog	Software	\$0.00	Item	2022-12-05 10:17:33
Create, edit or convert PDF files	true		Service Catalog	Software	\$0.00	Item	2022-12-05 20:46:33
More connected ways of creating and shar...	true		Service Catalog	Software	\$0.00	Item	2022-12-05 20:46:33
iPad	false		Service Catalog	Tablets	\$600.00	Item	2022-11-20 20:46:33
Apple iPhone 13	true		Service Catalog	Mobiles	\$799.00	Item	2022-05-20 08:30:16
Request for Apple iPhone 13	true		Service Catalog	Mobiles	\$999.00	Item	2022-05-24 03:02:19
Apple iPhone 13 pro	true		Service Catalog	Peripherals	\$19.00	Item	2022-11-20 20:46:33
For Apple iPhone 4/4S	false		Service Catalog	Mobiles	\$599.99	Item	2022-11-20 20:46:33
Apple iPhone 5	false		Service Catalog	Peripherals	\$19.00	Item	2022-11-20 20:46:33
Apple iPhone 5 Cable	false		Service Catalog	Hardware	\$799.99	Item	2022-11-20 20:46:33
Apple iPhone 6s	false		Service Catalog	Mobiles	\$799.99	Item	2022-11-20 20:46:33
Apple iPhone 6s Plus	false		Service Catalog	Mobiles	\$799.99	Item	2022-11-20 20:46:33

- 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'

Catalog Item - Laptop Request

Name: Laptop Request

Catalog: Service Catalog

Category: Hardware

Active:

Fulfillment automation level: Unspecified

Short description: Use this item to request a new laptop

### 5.3 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

The screenshot shows the 'Variable - New Record' page in ServiceNow. The 'Question' tab is active. In the 'Question' field, it says 'Laptop Model'. In the 'Name' field, it says 'laptop\_model'. There are other tabs like 'Annotation', 'Type Specifications', 'Default Value', 'Auto-populate', 'Permission', and 'Availability'.

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

The screenshot shows the ServiceNow interface for a Catalog Item named 'Laptop Request'. The top navigation bar includes 'All', 'Favorites', 'History', 'Workspaces', and a search bar. Below the title, there are buttons for 'Copy', 'Try It', 'Update', 'Edit in Catalog Builder', and 'Delete'. The main content area displays the 'Catalog UI Policies' tab, which lists four policies: 'Single Line Text' (Type: Single Line Text, Question: Laptop Model, Order: 100), 'Multi Line Text' (Type: Multi Line Text, Question: Justification, Order: 200), 'Checkbox' (Type: Checkbox, Question: Additional Accessories, Order: 300), and 'Multi Line Text' (Type: Multi Line Text, Question: Accessories Details, Order: 400). A toolbar at the bottom of the list allows for sorting by Type, Order, and search.

## 5.4 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]

The screenshot shows the 'Catalog UI Policy - New Record' page. The top header includes 'All', 'Favorites', 'History', 'Workspaces', a search bar, and a 'Submit' button. The main form has fields for 'Applies to' (set to 'A Catalog Item' and 'Catalog Item: Laptop Request'), 'Application' (set to 'Global'), and 'Active' (checkbox checked). A 'Short description' field contains 'show accessories details'. Below the form is a 'When to Apply' section with a 'Catalog Conditions' table. The table shows a single condition: 'additional\_accessories IS true'. There are buttons for 'Add Filter' and 'Choose option: "OR" Clause'. Below the table are sections for 'Applies on a Catalog Item view' (checkbox checked), 'Applies on Catalog Tasks' (checkbox unchecked), 'Applies on Requested Items' (checkbox unchecked), and 'On load' (checkbox checked). A note at the bottom says 'Reverse the effects of the catalog UI policy actions when the Conditions evaluate to false'.

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 two stacked ServiceNow forms. The top form is 'Catalog UI Policy - show accessories details' under 'Catalog Conditions'. It contains fields for 'Catalog Item' (accessories\_details), 'Condition' (true), and 'Action' (Apply the catalog UI policy actions when the form is loaded or when the user changes values on the form). The bottom form is 'Catalog UI Policy Action - New Record' under 'Catalog Item' (Laptop Request). It shows a table with columns: Name (accessories\_details), Read only (Leave alone), Mandatory (True), Visible (True), and Order (100). A configuration section on the right allows setting application (Global), mandatory (True), visibility (True), read-only (Leave alone), value action (Leave alone), and field message type (None).

## 5.5 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. The main area displays fields for Name (Laptop Request Project), State (Complete), Parent (empty), Release date (empty), Install date (empty), Installed from (empty), and Description (empty). To the right, a summary table shows Application (Global), Created (2025-06-24 06:51:45), Created by (admin), and Merged to (empty). Below the main form is a 'Related Links' section with options like 'Export to XML', 'Merge With Another Update Set', and 'Scan Update Set'. At the bottom, there are tabs for 'Customer Updates (10)', 'Update Set Logs', and 'Child Update Sets'. A table below shows a single row with 'Created' (2025-06-24 06:51:45), 'Type' (empty), 'View' (empty), 'Target name' (empty), 'Updated by' (empty), 'Remote update set' (empty), and 'Action' (empty).

## 5.6 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

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.

## 5.7 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.

The screenshot shows the ServiceNow service catalog interface. At the top, there's a navigation bar with 'servicenow' and links for 'All', 'Favorites', 'History', 'Workspaces', and 'Admin'. The title bar says 'Laptop Request'. A search bar is at the top right. Below the title, a message says 'Use this item to request a new laptop'. There are fields for 'Laptop Model' (containing 'hp') and 'Justification'. To the right, there's a sidebar with 'Order this item' options: 'Quantity' (1), 'Delivery time' (2 Days), 'Order Now' (button), 'Add to Cart' (button), and a 'Shopping Cart' section which is empty. At the bottom left, there's a checkbox for 'Additional Accessories'. Below the main form, a modal window titled 'Retrieved Update Set - Laptop Request Project' is open, showing a list of 19 items. The columns are 'Name', 'Type', 'Target name', 'Table', 'View', and 'Action'. Most items are of type 'Catalog UI Policy' or 'Catalog UI Policy Action', with actions like 'INSERT\_OR\_UPDATE'. One item is a 'Variable' named 'Additional Accessories' with an action 'INSERT\_OR\_UPDATE'. Another item is a 'Catalog Item' named 'Laptop Request' with an action '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.

This screenshot shows the same ServiceNow service catalog interface as the previous one, but with a key difference: the 'Additional Accessories' checkbox is checked. As a result, the 'Accessories Details' field is now visible and has a red asterisk (\*) indicating it is a mandatory field. The rest of the interface remains the same, including the 'Laptop Model' field containing 'hp' and the sidebar with ordering options.

## 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