

Requirement Analysis Phase

Technology Stack (Architecture & Stack)

Date	1 November 2025
Team ID	NM2025TMID04148
Project Name	Laptop Request Catalog Item
Maximum Marks	4 Marks

Technical Architecture:

The "Laptop Request Catalog Item" is built entirely within the ServiceNow cloud. The architecture (shown below) involves a user interacting with the Service Catalog UI. This UI loads the specific catalog item, which then uses a UI Policy for dynamic form logic. A separate UI Action provides additional form-reset functionality. All data is read from and written to the underlying ServiceNow database tables.

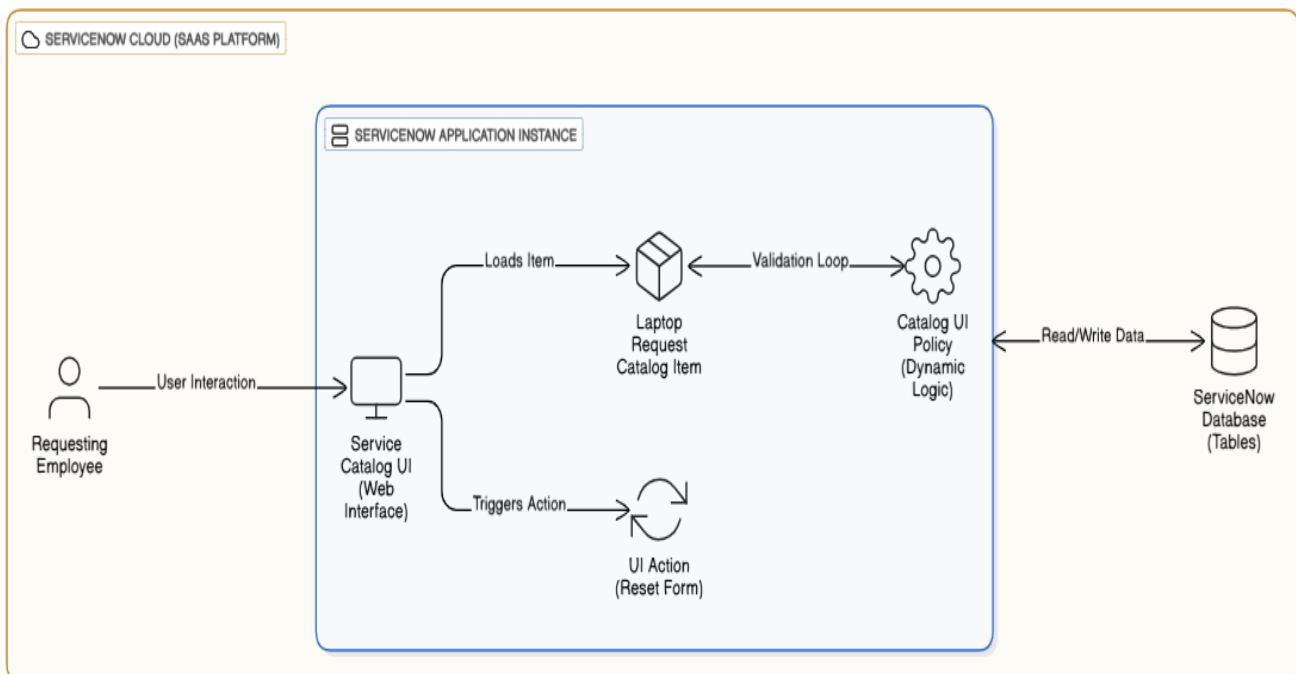


Table-1: Components & Technologies:

Component	S.No	Description	Technology
User Interface	1.	Employee interacts with the catalog item via a web browser.	ServiceNow Service Portal / Service Catalog UI
Application Logic-1	2.	Defines the core request item, its fields (variables), and metadata.	ServiceNow Catalog Item [sc_cat_item]
Application Logic-2	3.	Dynamically shows/hides the "Accessories Details" field based on a checkbox.	ServiceNow Catalog UI Policy (Client-side script)
Application Logic-3	4.	Provides a "Reset Form" button to clear all fields on the cart.	ServiceNow UI Action (Client-side script)
Database	5.	Stores the submitted request data.	ServiceNow Request Item [sc_req_item] Table
Cloud Database	6.	The underlying database management is handled by ServiceNow.	ServiceNow Cloud Database
File Storage	7.	Not applicable for this project.	
External API-1	8.	Not applicable for this project.	
External API-2	9.	Not applicable for this project.	
Machine Learning Model	10.	Not applicable for this project.	
Infrastructure (Server / Cloud)	11.	The entire solution is hosted and managed on the ServiceNow platform.	ServiceNow Cloud (SaaS)

Table-2: Application Characteristics:

Characteristics	S.No	Description	Technology
Open-Source Frameworks	1.	Not applicable (ServiceNow is a proprietary platform).	
Security Implementations	2.	Access to the catalog item is controlled by user roles and entitlements.	ServiceNow Entitlements, User Criteria
Scalable Architecture	3.	SaaS-based; the application scales automatically with the ServiceNow instance.	ServiceNow Cloud Architecture
Availability	4.	Highly available as part of the standard ServiceNow cloud hosting.	Load-balanced ServiceNow Instances
Performance	5.	Logic is client-side (UI Policy, UI Action), ensuring instant execution in the user's browser.	JavaScript (Client-Side)