

Project Design Phase-II

Technology Stack(Architecture & Stack)

Date	01 November 2025
Team ID	NM2025TMID06585
Project Name	Laptop Request Catalog Item
Maximum Marks	4 Marks

Technical Architecture:

Automation of Laptop Request and Approval Workflow using ServiceNow Service Catalog.

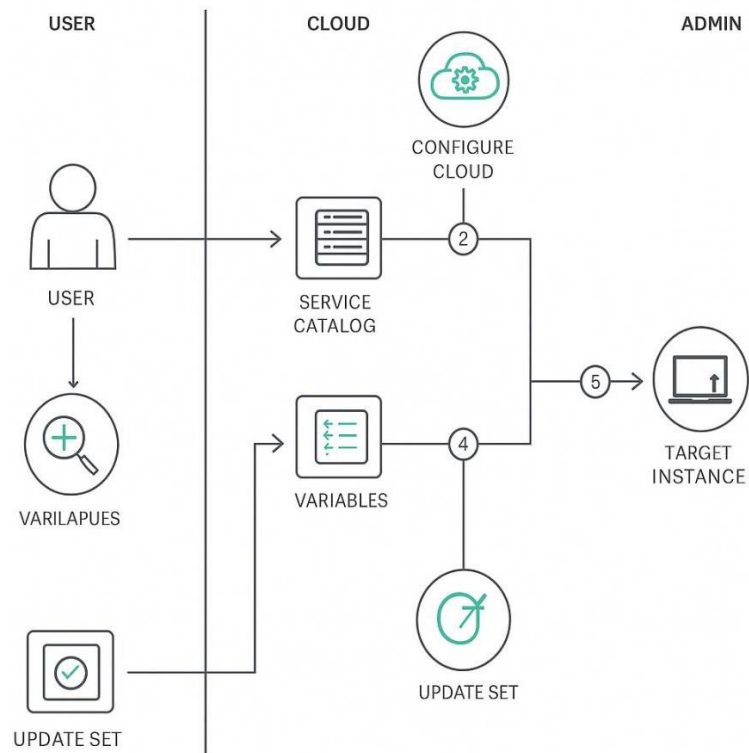


Table-1:Components Technology:

S.No.	Component	Description	Technology
1.	User Interface	Employee accesses the Laptop Request form through the Service Catalog.	ServiceNow Service Catalog UI
2.	Application Logic-1	Manages catalog variables that capture requester name, department, laptop type, and justification.	ServiceNow Catalog Variables
3.	Application Logic-2	Controls field visibility and mandatory behavior dynamically based on user input.	ServiceNow Catalog UI Policies
4.	Application Logic-3	Implements the “Reset Form” button That clears all user entries.	ServiceNow UI Action
5.	Workflow Logic	Routes the submitted laptop request for managerial approval.	ServiceNow Flow Designer/Workflow
6.	Database	Stores request, user, and catalog Item data in CMDB and Task tables.	ServiceNow CMDB/ TaskTable
7.	UpdateSet	Tracks configuration and customization changes for migration.	Local Update Set (XML Export/ Import)
8.	FileStorage	Saves attachments and configuration-related logs.	ServiceNow Attachment Table
G.	ExternalAPI (Optional)	Enables integration with Asset Management or Procurement Modules for inventory sync.	RESTAPI Integration
10.	Infrastructure (Server/Cloud)	Hosted entirely on ServiceNow’s SaaS platform ensuring scalability and security.	ServiceNow Cloud (SaaS)

Table-2: Application Characteristics:

S.No.	Characteristics	Description	Technology
1.	Open-Source Frameworks	Not applicable (ServiceNow is a proprietary platform).	—
2.	Security Implementations	Role-based access control(RBAC), ACLs, and scoped applications ensure data security.	ACLs, Scoped Applications
3.	Scalable Architecture	SaaS-based architecture that scales horizontally across ServiceNow’s multi-tenant environment.	ServiceNow Cloud Architecture
4.	Availability	High availability through load-Balanced cloud instances.	ServiceNow Cloud Instances
5.	Performance	Optimized via asynchronous flows and indexed database tables.	Glide Record, Background Scripts