

Project Design Phase-II

Technology Stack (Architecture&Stack)

Date	2 November 2025
Team ID	NM2025TMID01266
Project	Laptop Request Catalog Item
Maximum Marks	4 Mark

Technical Architecture:

The deliverable shall include the architecture diagram as below and the information as per the table1&table2

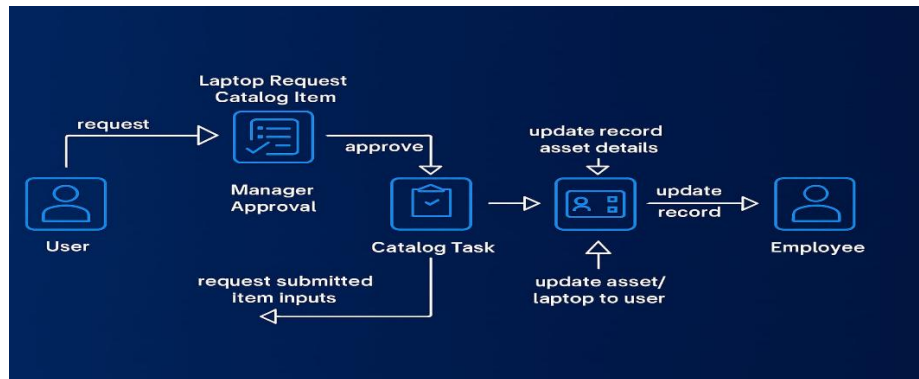


Table-1 Component & Technology:

S.no	Component	Description	Technology
1.	User Interface (Catalog Item form)	The self-service form the requester uses to enter laptop specs, justification, delivery address, attachments. Includes dynamic behaviour (show/hide fields). ServiceNow Service Catalog Item, Catalog Client Scripts, Catalog UI Policy,	Variable Sets
2.	Catalog Variables & Variable Sets	Enforce mandatory fields, auto-populate requester's location, validate cost center, prevent invalid combos.	Catalog client scripts (client-side), Business Rules (server-side)
3.	Business Rules & Client Validation	Enforce mandatory fields, auto-populate requester's location, validate cost center, prevent invalid combos.	. Catalog client scripts (client-side), Business Rules (server-side)
4.	Flow / Orchestration (Request Flow)	End-to-end flow: approvals → procurement → asset creation → fulfillment → notifications.	Flow Designer (ServiceNow Flow Designer), Orchestration (if provisioning tasks to external systems)

5.	Approvals & Approval Engine	Manager and/or IT approvals based on cost / role; conditional approvals for high-cost requests.	Approval Engine, Approval Actions in Flow Designer
6.	Assignment & Fulfillment Tasks	Create assigned tasks for IT provisioning (imaging), procurement (purchase order), and shipping.	Task table (sc_task, sc_req_item), Assignment rules, Workflow/Flow Designer
7.	CMDB / Asset Management	Create or update CI/Asset records (hardware CI, asset tags, warranty). Link request to CI/Asset.	CMDB tables (cmdb_ci_computer), Asset Management (alm_asset)

Task 2- Application Characteristics:

S.no	Component	Description	Technology
1.	Open Source Frameworks	Not applicable (ServiceNow platform, proprietary)	N/A
2.	Security Implementations	Role-based access control, ACLs, approval workflows, secure scripts ACLs, UI Policies, Access Controls	ACLs, UI Policies, Access Controls
3.	Scalable Architecture	Scales automatically with ServiceNow cloud; handles large request volume	ServiceNow Cloud Architecture
4.	Availability	Highly available via ServiceNow hosting; multi-instance redundancy	Load-balanced ServiceNow Instances