Project Design Phase-II - Technology Stack (Architecture & Stack)

Date	02 November 2025
Team ID	NM2025TMID03898
Project Name	Laptop Request Catalog Item
Maximum Marks	4 Marks

Technical Architecture:

The deliverable includes the architectural components for the Laptop Request Catalog Item implementation in ServiceNow.

Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Employees interact via Service Catalog portal in ServiceNow	ServiceNow Service Catalog UI
2.	Application Logic-1	Service Catalog item with four custom variables for data capture	ServiceNow Catalog Item Designer
3.	Application Logic-2	UI Policy that controls field visibility based on checkbox selection	Catalog UI Policy with conditions
4.	Application Logic-3	UI Action that resets form fields when button is clicked	Client Script on sc_cart table
5.	Database	Stores catalog items, variables, and request data	ServiceNow sc_cat_item, sc_req_item tables [9]
6.	Cloud Database	Managed by ServiceNow cloud backend	ServiceNow Cloud Database
7.	File Storage	Update sets stored as XML for deployment	ServiceNow Update Set XML export
8.	External API-1	Not applicable for current use case	-
9.	External API-2	Not applicable	-
10.	Machine Learning Model	Not applicable for current use case	-
11.	Infrastructure (Server / Cloud)	Hosted and managed on ServiceNow SaaS platform	ServiceNow Cloud (SaaS)

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Not applicable (ServiceNow is proprietary)	-
2.	Security Implementations	Role-based access control, catalog item security	ACLs, Catalog Security Rules
3.	Scalable Architecture	SaaS-based, horizontally scalable via ServiceNow architecture	ServiceNow Cloud Architecture
4.	Availability	Highly available with ServiceNow cloud hosting	Load-balanced ServiceNow Instances
5.	Performance	Optimized via client-side scripts and indexed catalog tables	GlideForm API, Client Scripts