

## Project Design Phase

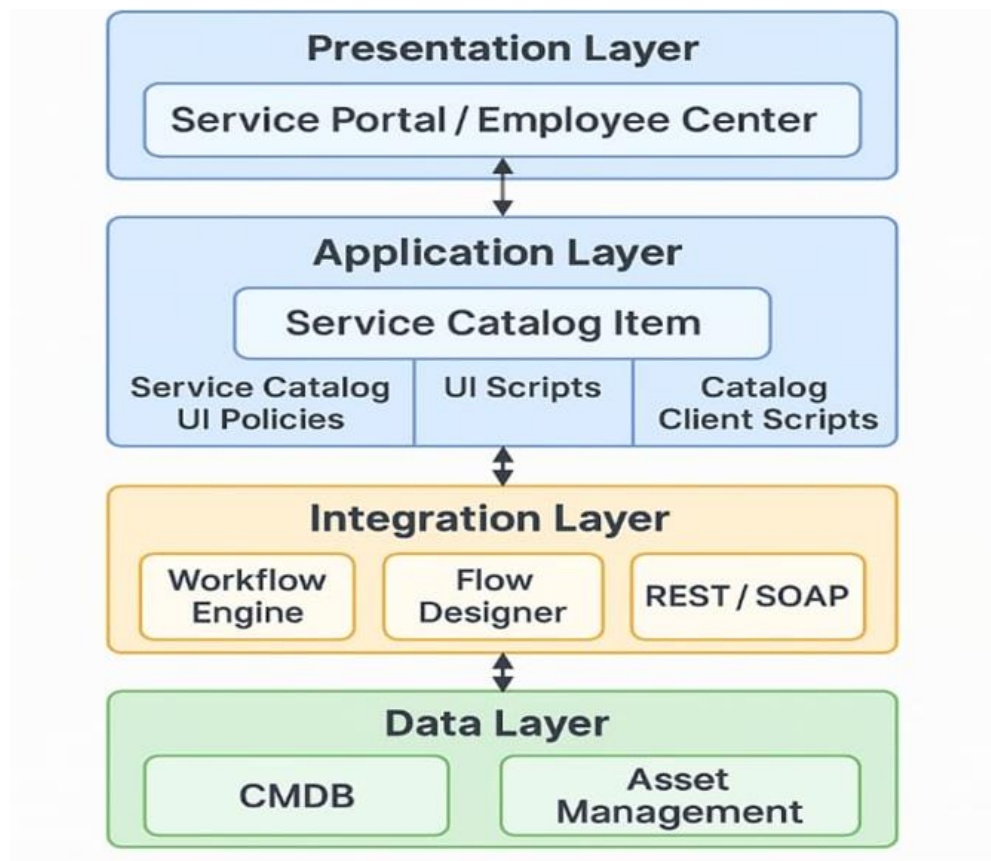
### Technology Stack Template

Date	02 NOVEMBER 2025
Team ID	NM2025TMID07513
Project Name	Laptop Request Catalog Item
Maximum Marks	4 Marks

### Technical Architecture

The Laptop Request Catalog Item in ServiceNow uses a cloud-based architecture that leverages ServiceNow's built-in modules, scripting, and workflow automation capabilities. The system provides employees with an intuitive interface to request laptops, which are then automatically routed for approval and fulfillment.

This architecture follows a multi-layered structure including the user interface, application logic, database, and notification services — all hosted within the ServiceNow Cloud Platform.



**Table 1: Components & Technologies**

S.No	Component Description	Technology
1	User Interface – Employee requests via Service Catalog	ServiceNow Portal
2	Application Logic-1 – Routes requests for approval	ServiceNow Flow Designer
3	Application Logic-2 – Tracks status and stores records	GlideRecord (Server Script)
4	Notifications – Sends status updates	ServiceNow Notifications
5	Database – Stores request, approval, and fulfillment data	ServiceNow CMDB
6	Cloud Database – Managed by ServiceNow backend	ServiceNow Cloud Database
7	File Storage – Internal system logs	ServiceNow Logs
8	External API – HR integration for user validation	REST API
9	Infrastructure – Hosted and managed SaaS	ServiceNow Cloud Platform

**Table 2: Application Characteristics**

S.No	Characteristics	Description	Technology
1	Open-Source Frameworks	Not applicable (ServiceNow proprietary)	-
2	Security Implementations	Role-based access and secure workflows	ACLs, Scoped Apps
3	Scalable Architecture	SaaS-based, horizontally scalable	ServiceNow Cloud Architecture
4	Availability	High uptime and fault-tolerant	Load-balanced Cloud Instances
5	Performance	Optimized through async flows	GlideRecord, Background Scripts

## References

1. <https://developer.servicenow.com/>
2. <https://www.servicenow.com/>