

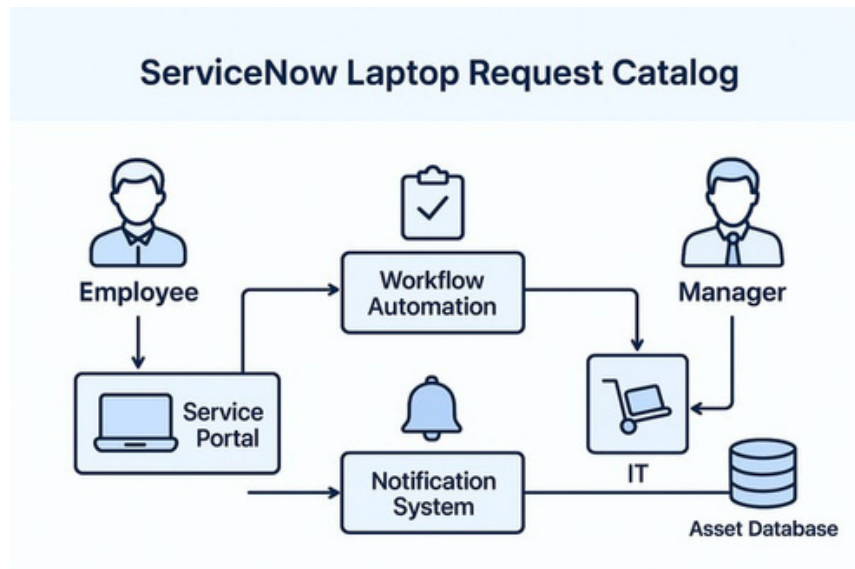
## Project Design Phase-II Technology Stack (Architecture & Stack)

Date	1 November 2025
Team ID	NM2025TMID03056
Project Name	Laptop request
Maximum Marks	4 Marks

### Technical Architecture:

The technical architecture integrates ServiceNow's workflow automation, asset management, and notification systems to enable seamless laptop request tracking and fulfillment across users and departments.

Reference: <https://developer.ibm.com/patterns/ai-powered-backend-system-for-order-processing-during-pandemics/>



### Guidelines:

- Clearly define user roles (Employee, Manager, IT Team) before configuration.
- Create standardized forms in the ServiceNow catalog for laptop requests.
- Automate approval and fulfillment workflows to reduce manual steps.
- Set up notifications for each status change (Submitted, Approved, In Progress, Completed).
- Integrate with the Asset Management module for tracking laptop availability and assignment.
- Use dashboards to monitor request progress, SLA adherence, and overall performance.
- Ensure role-based access to maintain security and data integrity.
- Test all workflows thoroughly before deployment to avoid process gaps.
- Provide user training for employees and IT staff on using the catalog.
- Continuously review and optimize the workflow based on feedback and analytics.

Table-1 : Components & Technologies:

Component Technology Used

Component	Technology Used
 Service Portal	ServiceNow Portal
 Laptop Request Form	ServiceNow Catalog Item
 Workflow Automation	Flow Designer
 Approval Process	Approval Rules
 Notifications	Email / ServiceNow Notifications
 Tracking Dashboard	Performance Analytics
 Asset Management	ServiceNow Asset Module
 Integration	REST / SOAP APIs
 Reporting	ServiceNow Reports
 Security	Role-based Access Control

Table-2: Application Characteristics:

Project Performance Summary				
Characteristic	Solution Architecture	Project Backlog	Delivery & Velocity	Solution Quality
<div><div></div><div>Description</div></div>	Defines operational foundation	Total estimated work volume	Planned length of delivery cycle	Employees submit requests easily
<div><div></div><div>Details</div></div>	ServiceNow Portal, Workflow Engine	80 Story Points	6 Days	Reduce Manual Follow-ups
<div><div></div><div>Integrations</div></div>	Asset & Procurement Databases	79 Story Points completed	20 Story Points per Sprint	Minimize Delays
<div><div></div><div>Security</div></div>	Role-Based Access Control (RBAC)	1 Story Point Remaining	19.75 Story Points per Sprint	Improve Visibility