

## Project Design Phase-II

### Technology Stack

Date	2 November 2025
Team ID	NM2025TMID02444
Project Name	Laptop Request Catalog Item
Maximum Marks	4 Marks

### Technology Stack

#### 1 Platform & Core Modules

- **ServiceNow:** The primary platform where the solution is built (catalog, workflow, notifications).
- **Service Portal:** For the user interface where employees submit requests.
- **Flow Designer:** To orchestrate approvals, tasks and status updates.
- **Update Sets:** To manage versions, deployments and governance of catalog item changes.

#### 2 Data & Integration

- **User Profile Table** (sys\_user) in ServiceNow: to auto-populate employee data.
- **Catalog Request Tables:** sc\_req\_item, sc\_task standard ServiceNow tables for request and task management.
- **Email/Notification Engine:** ServiceNow's out-of-box notification system to send emails when status changes.
- (Optional) **Integration with Procurement/Asset Management:** If fulfilment involves procurement or asset assignment, integration may be needed (via REST/SOAP or MID-Server).

#### 3 Client-Side and Server-Side Components

- **Catalog Variables and Variable Sets:** To capture user inputs on the form. Best practice: use Variable Sets for reusable variables. [Medium+1](#)
- **UI Policies / Client Scripts:** To show/hide fields dynamically based on selections (client-side).
- **Server-Side Business Rules / Script Include / Flow Actions:** For data validation, task creation, and backend logic. Reminder: server-side validation is crucial since client-side can be bypassed. [Medium](#)

- **Reports & Dashboards:** Use ServiceNow reporting module to capture key metrics (requests, fulfillment times) and present to management.

## 4 Security & Governance

- **Role-based Access Control (RBAC):** Use user criteria and roles to ensure only eligible employees can submit “Laptop Request” and only relevant IT groups see fulfillment tasks.
- **Audit Logging & Versioning:** Every modification to the catalog item, workflow and variables is tracked using update sets, change requests and deployment logs.
- **Change Management:** Use ServiceNow Change Management module for production deployment of the catalog item.

## 5 Environment & Deployment

- **Development Instance:** For building and testing the catalog item.
- **Test/UAT Instance:** For user acceptance testing with business stakeholders.
- **Production Instance:** Final deployment with update sets and change request approval.
- **Backup & Rollback Strategy:** Maintain backup of update sets and configurations; define rollback procedure in case of issues.

## 6 Tools & Supporting Technology

- **draw.io / Visio / Lucidchart:** For creating Data Flow Diagrams and workflow diagrams.
- **ServiceNow Studio / IDE:** For scripting and configuration.
- **Version Control / Repository:** GitHub or other repository to maintain documentation, diagrams and version history.
- **Surveys / Feedback Tool:** To gather user satisfaction data post-go-live.