Project Design Phase-II

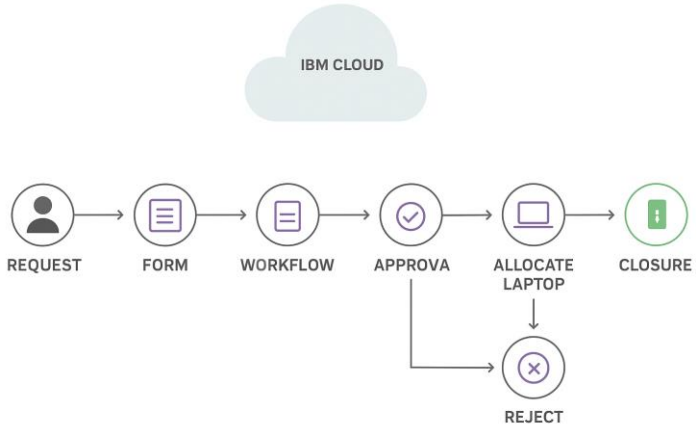
Technology Stack (Architecture & Stack)

Date	02 November 2025
Team ID	NM2025TMID08730
Project Name	Laptop Request Catalog Item
Maximum marks	4 Marks

Technical Architecture:

The deliverable shall include the architectural diagram as shown below, along with the information provided in Table 1 and Table 2.

Example: Automated Laptop Allocation for Remote Employees during Work-from-Home Setup



Guidelines

Represent each step (User → Portal → Workflow → Approval → Fulfillment → Closure)

Indicate infrastructure (local/cloud)

Show external integrations (e.g., vendor APIs)

Mark data flow (user input, database, notifications)

Once fulfilled, the request is marked as completed, and details are stored in CMDB

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1	User Interface	Employee raises laptop request via Service Portal.	ServiceNow Portal (Web UI)
2	Application Logic-1	Captures request and routes to approver.	Flow Designer / Workflow
3	Application Logic-2	Handles approval and status update.	Business Rules
4	Application Logic-3	Sends notifications to users.	ServiceNow Notifications
5	Database	Stores request and approval data.	ServiceNow CMDB / Tables
6	Cloud Database	Manages backend storage.	ServiceNow Cloud DB
7	File Storage	Saves attached request files.	ServiceNow Attachments
8	External API	Integrates with vendor systems (optional).	REST API / IntegrationHub
9	Machine Learning	(Optional) Predicts approval needs.	Predictive Intelligence
10	Infrastructure	Hosted and managed on ServiceNow Cloud.	ServiceNow SaaS

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1	Open-Source Frameworks	Not used (ServiceNow is paid cloud platform)	-
2	Security	Role-based access and approvals	ACLs, Roles
3	Scalability	Can handle many laptop requests easily	ServiceNow Cloud
4	Availability	Always available on ServiceNow cloud	ServiceNow Hosting
5	Performance	Fast processing with workflows and tables	Flow Designer, GlideRecord