

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

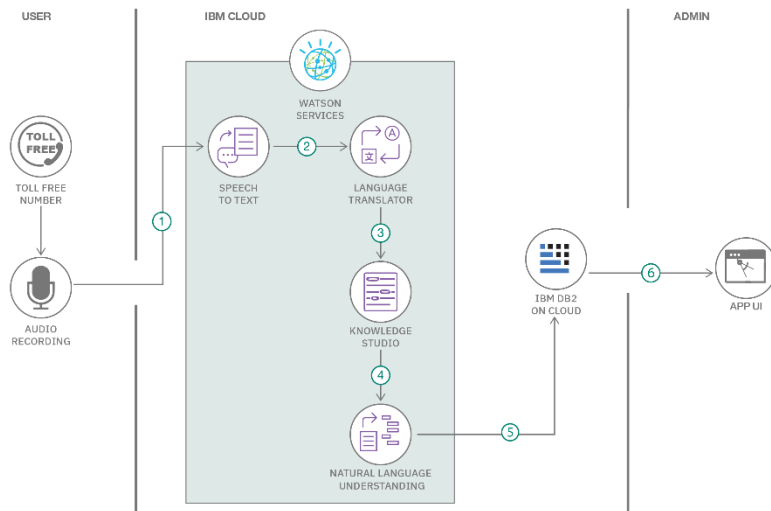
Date	10 Feb 2026
Team ID	LTVIP2026TMIDS55278
Project Name	Laptop Request Catalog Item
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

Example: Order processing during pandemics for offline mode

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



Guidelines:

- Include all the processes (As an application logic / Technology Block)
- Provide infrastructural demarcation (Local / Cloud)
- Indicate external interfaces (third party API's etc.)
- Indicate Data Storage components / services
- Indicate interface to machine learning models (if applicable)

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Employees submit laptop request via catalog form	ServiceNow Service Portal (Web UI)
2.	Application Logic-1	Dynamic field behaviour (show/hide fields)	Catalog UI Policies
3.	Application Logic-2	Form reset and client-side logic	Catalog UI Actions / Client Scripts
4.	Application Logic-3	Approval routing and workflow	ServiceNow Workflow Engine
5.	Database	Stores request and task data	ServiceNow Cloud Database
6.	Cloud Database	Managed cloud-based storage	ServiceNow SaaS Database
7.	File Storage	Stores attachments if required	ServiceNow Attachment Storage
8.	External API-1	Not applicable (internal workflow)	N/A
9.	External API-2	Not applicable	N/A
10.	Machine Learning Model	Not used in this project	N/A
11.	Infrastructure (Server / Cloud)	Cloud-based deployment	ServiceNow SaaS Cloud Platform

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Platform-based configuration (No custom framework used)	ServiceNow Platform
2.	Security Implementations	Role-based access control (RBAC)	ServiceNow IAM & ACL
3.	Scalable Architecture	Cloud SaaS multi-tenant architecture	ServiceNow 3-Tier Architecture
4.	Availability	24/7 cloud-hosted availability	ServiceNow Cloud Infrastructure
5.	Performance	Optimized catalog forms & workflow processing	ServiceNow Optimized Engine

References:

<https://c4model.com/>

<https://developer.ibm.com/patterns/online-order-processing-system-during-pandemic/>

<https://www.ibm.com/cloud/architecture>

<https://aws.amazon.com/architecture>

<https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d>