Date	27-01-2026
Team ID	**LTVIP2026TMIDS37778**
Project Name	Laptop Request Catalogue 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

Reference: https://developer.ibm.com/patterns/ai-powered-backend-system-for-order-
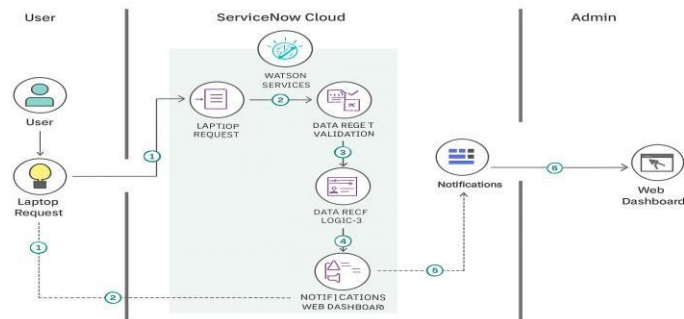
The system uses a Streamlit UI for user interaction, where queries are sent to a Python backend. spaCy processes the text for NLP tasks, and Google Gemini API generates intelligent responses. A MySQL database stores chat logs and reference data. The architecture integrates cloud-based AI with local logic to deliver real-time customer support.

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1	User Interface	Admin interacts via Web dashboard in ServiceNow.	ServiceNow Web UI
2	Application Logic-1	Checks if user is linked to an incident before allowing deletion	ServiceNow Flow Designer, Script
3	Application Logic-2	Validates user status from incident table	GlideRecord in Server Script
4	Application Logic-3	Sends notification if deletion is blocked.	ServiceNow Notifications
5	Database	Stores user, incident, and assignment data	ServiceNow CMDB, Incident Tables
6	Cloud Database	Managed by ServiceNow cloud backend.	ServiceNow Cloud Database
7	File Storage	Minimal use; logs stored internally	ServiceNow system logs
8	External API-1	(Optional) HRMS integration to verify user status	REST API in ServiceNow
9	External API-2	Not applicable	-
10	Machine Learning Model	Not applicable for current use case	-
11	Infrastructure (Server / Cloud)	Hosted and managed on ServiceNow SaaS platform	ServiceNow Cloud (SaaS)

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1	Open-Source Frameworks	Not applicable (ServiceNow is proprietary)	-
2	Security Implementations	Role-based access control, ACLs, secure scripts	ACLs, Scoped Applications
3	Scalable Architecture	SaaS-based, horizontally scalable via ServiceNow architecture	ServiceNow Cloud Architecture
4	Availability	Highly available with ServiceNow cloud hosting	Load-balanced ServiceNow Instances
5	Performance	Optimized via asynchronous flows and indexed tables	GlideRecord, Background Scripts