

Project design phase II
Technology Stack (Architecture & Stack)

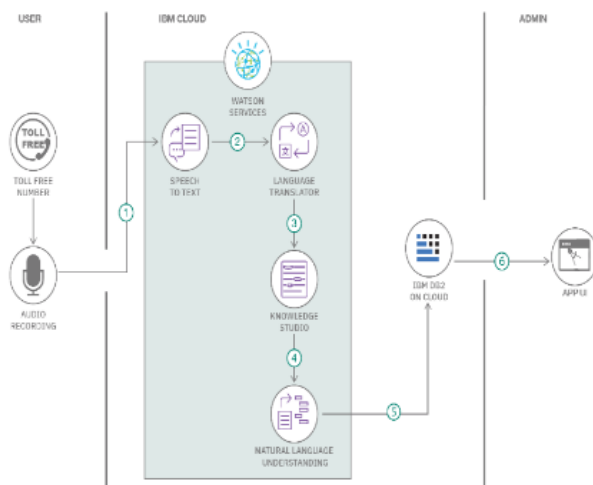
Field	Value
Date	13 November 2025
Team ID	NM2025TMID04009
Project Name	Streamlining Ticket Assignment for Efficient Support Operations
Maximum Marks	4 Marks

Technical Architecture

The project, "**Streamlining Ticket Assignment for Efficient Support Operations,**" involves an AI-powered ticket management system that automates support ticket assignment for faster issue resolution. The design is built primarily on the **ServiceNow Platform**.

Example: AI-powered ticket management system that automates support ticket assignment using intelligent backend architecture for faster issue resolution

Reference: IBM Developer – AI-powered backend system for order processing during pandemics



Components & Technologies (Table 1 Summary)

Component	Technology	Description Highlights
User Interface	ServiceNow Web UI	Web dashboard for end users and support agents to interact.
Application Logic (1, 2, 3)	Flow Designer, Business Rules, Script Includes, Notifications	Automates ticket assignment, prioritizes/categorizes tickets, and sends notifications.
Database/Storage	ServiceNow Incident and Task Tables, Attachments Table	Stores tickets, user/agent details, assignment history, and attachments ¹⁰ .
External APIs	REST API, Integration Hub	Integrated with email/chat for automatic ticket creation and third-party monitoring tools for incident generation.
Machine Learning Model	ServiceNow Predictive Intelligence	Suggests the best-fit agent or resolution category based on historical data.
Infrastructure	ServiceNow Cloud (SaaS)	Fully hosted and managed on the ServiceNow SaaS platform.

Application Characteristics (Table 2 Summary)

Characteristic	Technology	Description Highlights
Open-Source	Not applicable	Built within the ServiceNow platform.
Security	ACLs, Scoped Applications	Ensures secure ticket access through role-based permissions and ACL controls.

Scalability	ServiceNow Cloud Architecture	Automatically scales to handle increased ticket volume and user load.
Availability	Load-balanced ServiceNow Instances	Provides uninterrupted ticket management with high availability and failover support.
Performance	Flow Designer, Glide Record, Background Scripts	Improves ticket routing speed using background processes and optimized queries.