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

Date	13 November 2025
Team ID	NM2025TMID03380
Project Name	Streamlining Ticket Assignment for Efficient Support Operations
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: AI-powered ticket management system that automates support ticket assignment using intelligent backend architecture for faster issue resolution

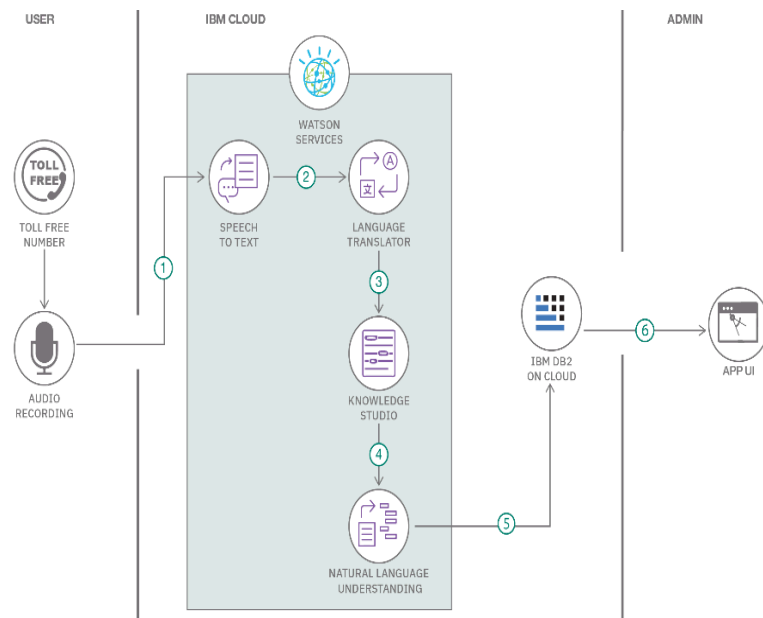**Reference: IBM Developer – AI-powered backend system for order processing during pandemics**

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	End users and support agents interact through web dashboard to create and manage tickets	ServiceNow Web UI
2.	Application Logic-1	Automates ticket assignment based on agent availability and skill set	ServiceNow Flow Designer, Business Rules
3.	Application Logic-2	Prioritizes and categorizes tickets based on impact and urgency	ServiceNow Script Includes
4.	Application Logic-3	Sends notification to assigned agents and requesters	ServiceNow Notifications
5.	Database	Stores tickets user details,agent information and assigned history	ServiceNow Incident and Task Tables
6.	Cloud Database	Managed through cloud ServiceNow's secure cloud infrastructure	ServiceNow Cloud Database
7.	File Storage	Stores ticket attachments and related documents	ServiceNow Attachments Table
8.	External API-1	Integrated with email or chat systems for automatic ticket creation	REST API in ServiceNow
9.	External API-2	Integrates with third party monitoring tools for incident generation	ServiceNow Integration Hub
10.	Machine Learning Model	Suggest best fit agent or resolution category based on historical data	ServiceNow Predictive Intelligence
11.	Infrastructure (Server / Cloud)	Fully hosted and managed on ServiceNow SaS platform	ServiceNow Cloud (SaaS)

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Not applicable as the ticket assignments system is built within the ServiceNow platform	-
2.	Security Implementations	Ensure secure ticket access and updates through role based permissions and ACL controls	ACLs, Scoped Applications
3.	Scalable Architecture	Automatically scales to handle increased ticket volume and user load	ServiceNow Cloud Architecture
4.	Availability	Provides uninterrupted ticket management with high availability and failover support	Load-balanced ServiceNow Instances
5.	Performance	Improves ticket routing speed and system efficiency using background processes and optimized queries	Flow Designer,GlideRecord, Background Scripts