Project Design Phase-II

Technology Stack (Architecture & Stack)

Date	2 November 2025
Team ID	NM2025TMID03497
Project Name	Streamlining Ticket Assignment for Efficient Support Operations
Maximum Marks	4 Marks

Technical Architecture:

The deliverable includes the architectural diagram and corresponding technology details as per the tables below.

Example: Streamlined Ticket Assignment for Efficient Support Operations using ServiceNow
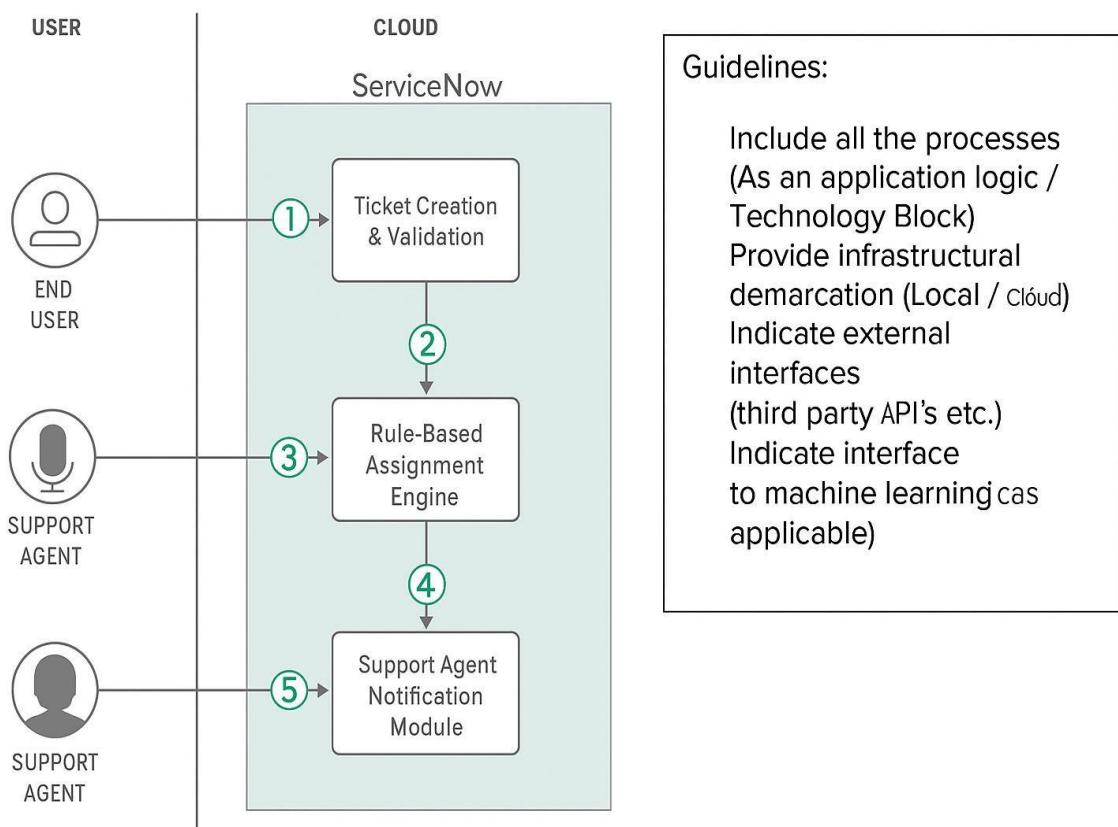
Table-1: Components & Technologies:

S.No	Component	Description	Technology
1	User Interface	End users and agents interact via ServiceNow web interface.	ServiceNow Web UI
2	Application Logic - 1	Handles ticket creation and validation.	Flow Designer, Business Rules
3	Application Logic - 2	Automates assignment of tickets based on rules.	Assignment Rules, Scripting
4	Application Logic - 3	Sends alerts and notifications to agents and managers.	ServiceNow Notification Engine
5	Database	Stores ticket, user, and assignment information.	ServiceNow CMDB, Incident Tables
6	Cloud Database	Managed and hosted by ServiceNow cloud backend.	ServiceNow Cloud Database
7	File Storage	Stores ticket logs and attachments.	ServiceNow Attachments Module
8	External API - 1	Optional integration with communication tools (e.g., email, Teams).	REST API, Email Integration
9	External API - 2	Optional analytics dashboard integration.	ServiceNow Performance Analytics
10	Machine Learning Model	Future enhancement for smart ticket routing.	Not applicable (current phase)
11	Infrastructure	Hosted entirely on ServiceNow's SaaS cloud 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 for agents, managers, and admins.	ACLs, Scoped Applications
3	Scalable Architecture	SaaS-based and horizontally scalable on ServiceNow Cloud.	ServiceNow Cloud Architecture
4	Availability	High availability ensured by ServiceNow cloud hosting.	Load-balanced Instances
5	Performance	Optimized using asynchronous workflows and indexed data tables.	GlideRecord, Background Scripts