

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

Date	2 NOVEMBER 2025
Team ID	NM2025TMID08174
Project Name	Streamlining ticket assignment for efficient support operations
Maximum Marks	4 Marks

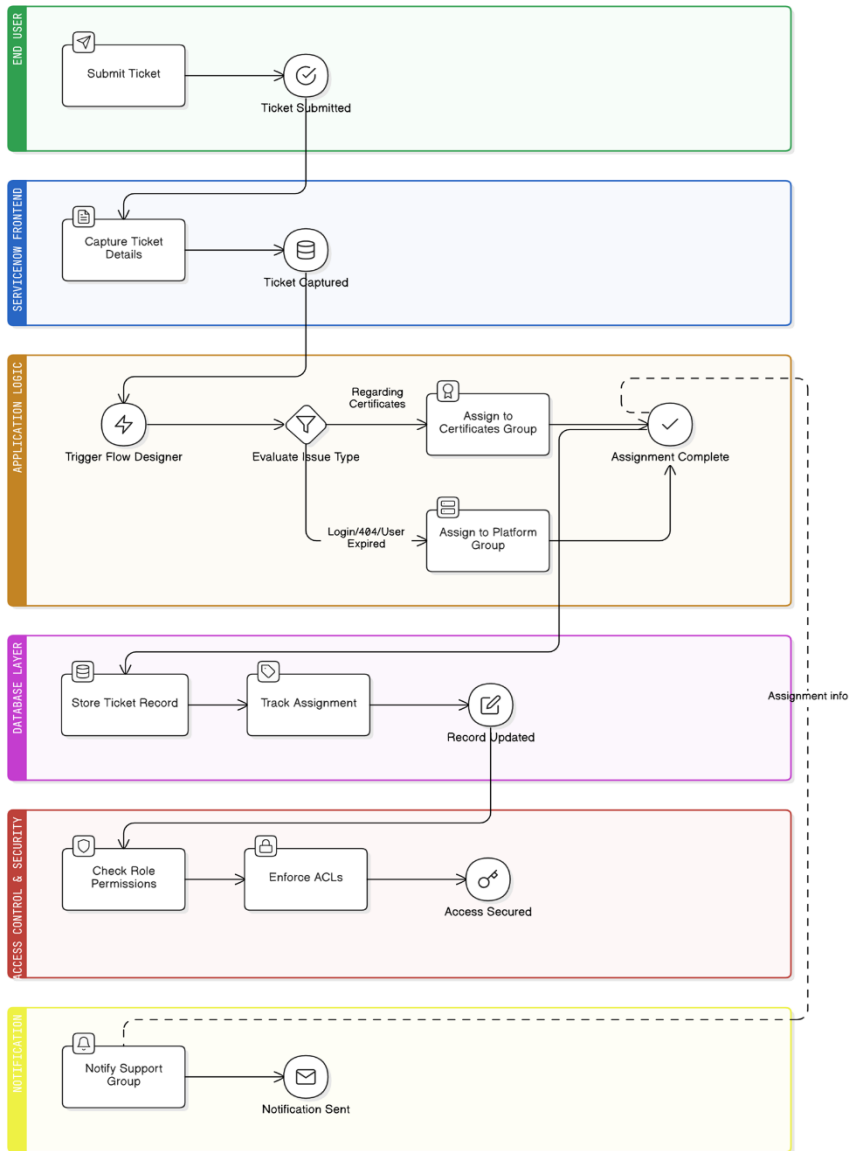
Technical Architecture:

The deliverable includes an automated ServiceNow-based architecture that intelligently assigns support tickets to appropriate groups based on the issue type. The system leverages **ServiceNow's Flow Designer, custom tables, roles, and Access Control Lists (ACLs)** to ensure accurate routing, role-based security, and operational efficiency.

This architecture helps ABC Corporation improve turnaround time, eliminate manual routing, and enhance customer satisfaction through intelligent automation.

Guidelines

Design the architecture with clear layers—from **end user ticket creation** to **automated routing** via ServiceNow Flow Designer and decision logic.
Use **role-based access, custom tables, and ACLs** for security.
Ensure smooth data flow between groups, efficient automation, and reliable performance within the **ServiceNow cloud environment** for streamlined support operations.



Table–1: Components & Technologies

S.No	Component	Description	Technology
1	User Interface	Employees or admins submit and view tickets using the ServiceNow portal.	ServiceNow Web UI
2	Application Logic – 1	Automates assignment based on ticket issue field using Flow Designer.	ServiceNow Flow Designer
3	Application Logic – 2	Evaluates routing conditions (Certificates or Platform) for each new record.	ServiceNow Flow Designer Decision Logic
4	Application Logic – 3	Sends automatic notifications when tickets are assigned.	ServiceNow Notification Engine
5	Database	Stores all operational ticket data (Operations Related Table).	ServiceNow Database Tables
6	Cloud Database	Securely hosted and managed on ServiceNow cloud backend.	ServiceNow Cloud Database
7	File Storage	Stores logs and attachments related to tickets.	ServiceNow System Logs
8	External API – 1 (Optional)	Not applicable (internal ServiceNow processes only).	-
9	External API – 2	Not applicable.	-
10	Machine Learning Model	Not applicable for current automation.	-
11	Infrastructure (Server / Cloud)	Hosted and maintained on ServiceNow SaaS environment.	ServiceNow Cloud (SaaS Platform)

Table–2: Application Characteristics

S.No	Characteristics	Description	Technology
1	Open-Source Frameworks	Not applicable (ServiceNow is a proprietary platform).	-
2	Security Implementations	Role-based access, ACLs, scoped application for security.	ServiceNow ACLs & Role Management
3	Scalable Architecture	Supports scaling across multiple teams or departments.	ServiceNow Cloud Architecture
4	Availability	Highly available with ServiceNow cloud hosting and redundancy.	Load-balanced ServiceNow Instances
5	Performance	Optimized through asynchronous flows and indexed tables for routing efficiency.	Flow Designer