Project Design Phase-II
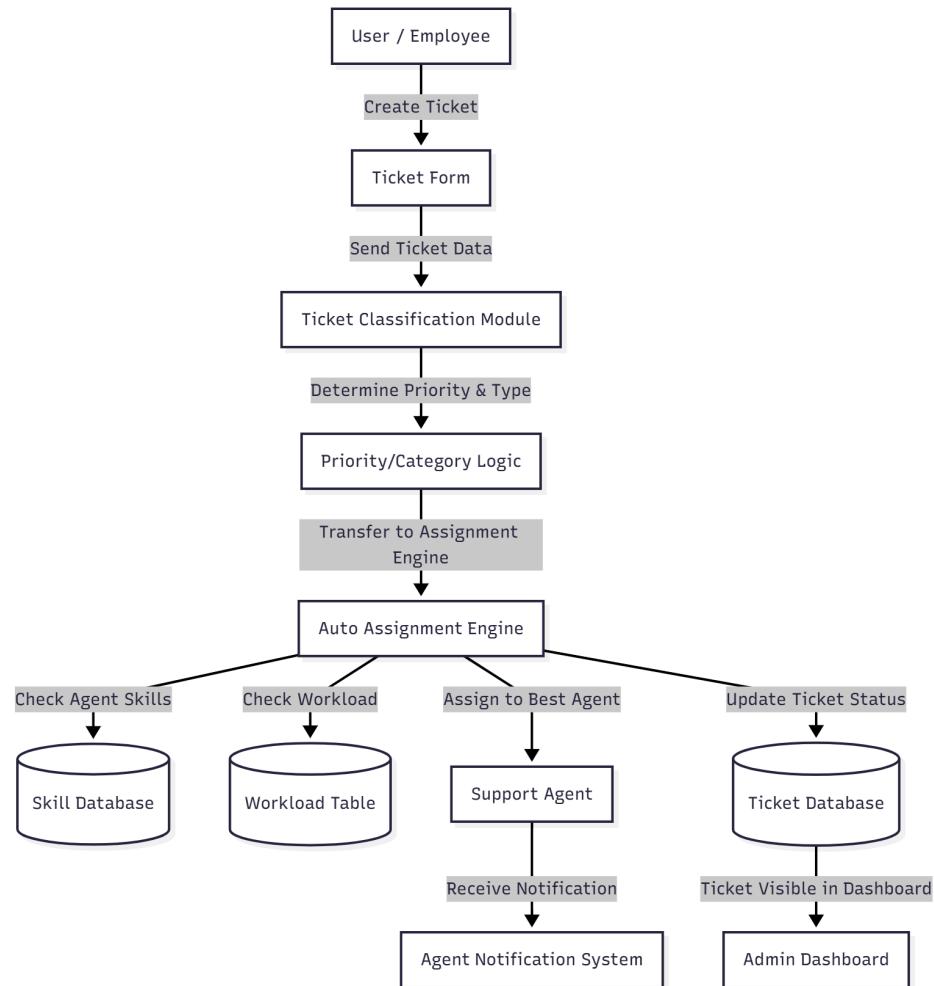# Data Flow Diagram & User Stories

Date	1 NOVEMBER 2025
Team ID	NM2025TMID08026
Project Name	Streamlining Ticket Assignment for Efficient Support Operations
Maximum Marks	4 Marks

Data Flow Diagrams:

A Data Flow Diagram (DFD) illustrates how data flows through the ticket assignment system and how automated logic processes support tickets. It helps visualize how tickets are created, analyzed, and assigned to the most suitable support agent.

In this project *"Streamlining Ticket Assignment for Efficient Support Operations"*, the DFD demonstrates how ticket details entered by users are processed through the system. The system checks priority, ticket type, agent skills, and workload before assigning tickets. If a suitable agent is available, the system automatically assigns the ticket and notifies the agent. The DFD clearly shows interaction between the user, system, agent database, and assignment engine to ensure fast, accurate, and fair ticket allocation

```mermaid
flowchart TD
    User[User / Employee] -->|Create Ticket| Form[Ticket Form]
    Form -->|Send Ticket Data| Classification[Ticket Classification Module]
    Classification -->|Determine Priority & Type| Logic[Priority/Category Logic]
    Logic -->|Transfer to Assignment Engine| Engine[Auto Assignment Engine]
    Engine -->|Check Agent Skills| Skill[(Skill Database)]
    Engine -->|Check Workload| Workload[(Workload Table)]
    Engine -->|Assign to Best Agent| Agent[Support Agent]
    Engine -->|Update Ticket Status| Ticket[(Ticket Database)]
    Agent -->|Receive Notification| Notification[Agent Notification System]
    Ticket -->|Ticket Visible in Dashboard| Dashboard[Admin Dashboard]
```

User / Employee

Create Ticket

Ticket Form

Send Ticket Data

Ticket Classification Module

Determine Priority & Type

Priority/Category Logic

Transfer to Assignment Engine

Auto Assignment Engine

- Check Agent Skills → **Skill Database**
- Check Workload → **Workload Table**
- Assign to Best Agent → **Support Agent**
- Update Ticket Status → **Ticket Database**

Support Agent → *Receive Notification* → **Agent Notification System**

Ticket Database → *Ticket Visible in Dashboard* → **Admin Dashboard**

User Stories:

User stories define what different users need from the system in simple, goal-focused language. In this project, they help ensure the system blocks user deletion only when necessary, protecting incident data.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
End User / Employee	Ticket Creation	USN-1	As a user, I want to submit a ticket so that I can get support for my issue..	Ticket should be successfully created and recorded in the system..	High	Sprint-1
System (Automation Engine))	Auto Ticket Assignment	USN-2	As a system, I must automatically assign tickets based on priority, skills, and workload.t.	Ticket is assigned to the right agent without manual intervention..	High	Sprint-1
Support Agent	Ticket Handling	USN-3	As an agent, I want to receive a notification when a ticket is assigned to me.	Agent receives alert and can view ticket instantly.	Medium	Sprint-2