Project Design Phase-II Data
Flow Diagram & User Stories

Date	02 November 2025
Team ID	NM2025TMID04195
Project Name	Streamlining Ticket Assignment for Efficient Support Operations
Maximum Marks	4 Marks

Data Flow Diagrams:

A Data Flow Diagram (DFD) represents the logical flow of data within the *ticket assignment and management system*. It visually depicts how information moves between entities such as customers, support agents, team leads, and the automated ticket assignment engine. This helps in understanding the system's functionality, data interactions, and processing at various levels.

In this project — Streamlining Ticket Assignment for Efficient Operations — the DFD highlights how a support ticket progresses through different stages, from creation to resolution, ensuring transparency, efficiency, and optimized resource utilization.

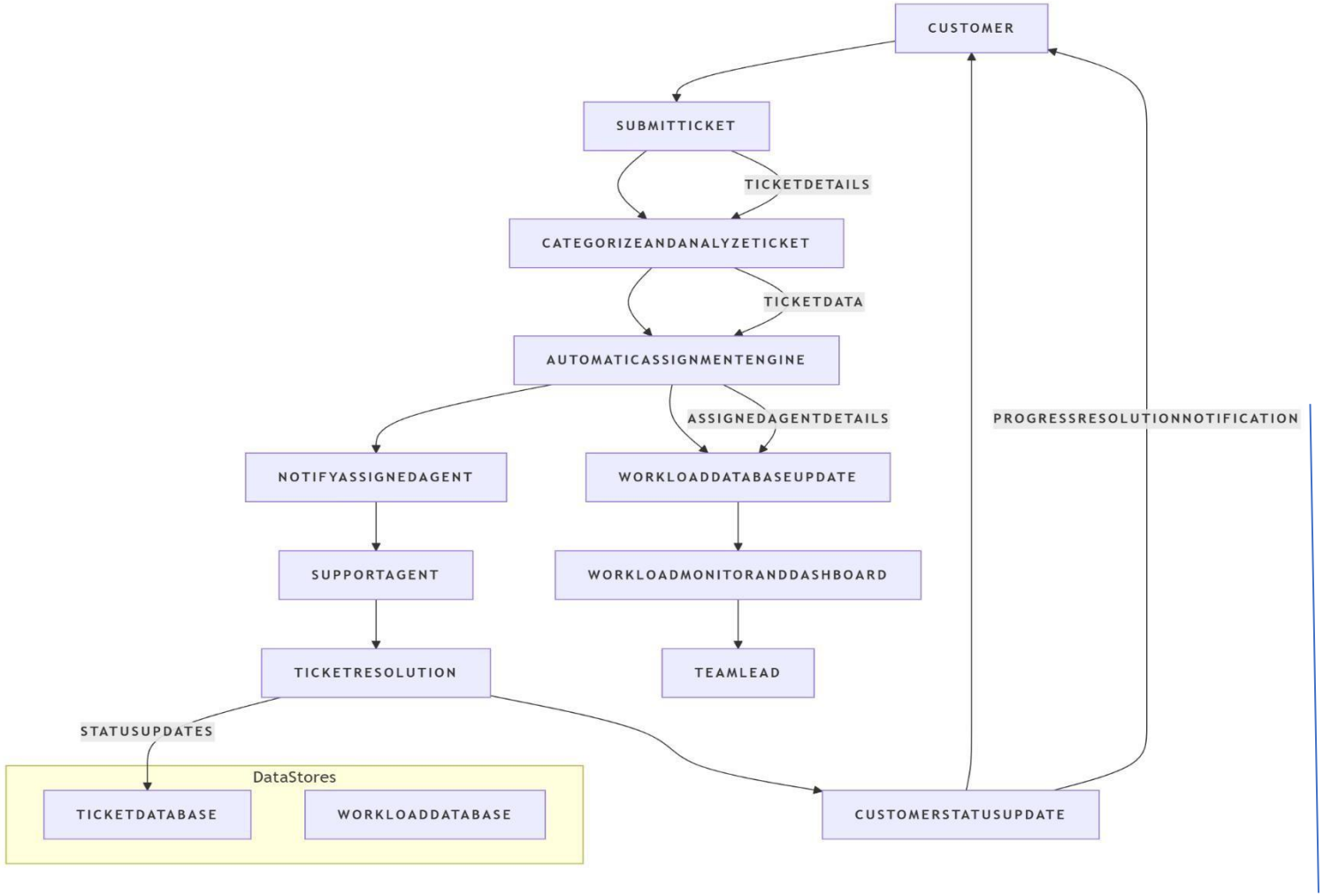
Flowchart Explanation:

- **Ticket Creation by Customer**
  The process begins when a customer submits a support ticket. The ticket details enter the system for categorization and analysis.
- **System-Driven Ticket Categorization & Assignment**
  The system categorizes the ticket based on priority and type, then the automatic assignment engine selects the most suitable support agent using skill and workload data.
- **Workload Monitoring & Updates**
  Once assigned, workload data is updated in the database. A dashboard provides real-time ticket distribution and SLA monitoring for team leads.
- **Ticket Progress & Resolution**
  The **assigned agent** works on resolving the issue.

The system continuously tracks status updates (In Progress, On Hold, Resolved).
Once resolved, the system automatically notifies the customer and updates all record

Monitoring & Continuous Optimization:

- **Team Leads** and **System Administrators** use the dashboard insights to:
  - Reallocate tickets if an agent is overloaded.
  - Adjust rules in the assignment engine.
  - Identify performance trends or SLA risks.


CUSTOMER
SUBMITTICKET
TICKETDETAILS
CATEGORIZEANDANALYZETICKET
TICKETDATA
AUTOMATICASSIGNMENTENGINE
ASSIGNEDAGENTDETAILS
PROGRESSRESOLUTIONNOTIFICATION
NOTIFYASSIGNEDAGENT
WORKLOADDATABASEUPDATE
SUPPORTAGENT
WORKLOADMONITORANDDASHBOARD
TICKETRESOLUTION
TEAMLEAD
STATUSUPDATES
DataStores
TICKETDATABASE
WORKLOADDATABASE
CUSTOMERSTATUSUPDATE

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
Customer	Ticket Creation & Tracking	USN-1	As a customer, I want to raise a support ticket easily so that my issues can be resolved quickly	Ticket is successfully created and visible with current status updates.	High	Sprint-1
System (Auto-Assignment)	Intelligent Ticket Assignment	USN-2	As the system, I must assign tickets automatically to the most suitable agent based on skills and workload.	Ticket must be assigned immediately to an available and skilled agent.	High	Sprint-1
System (Notification)	Alerts & Escalation	USN-3	As the system, I must notify the team lead when an SLA is at risk or ticket is delayed.	Escalation alerts must be triggered based on SLA breach rules.	High	Sprint-2
Support Agent	Ticket Handling	USN-4	As an agent, I want to receive relevant tickets instantly so that I can solve issues efficiently.	Assigned tickets must display correctly in Agent Workspace.	High	Sprint-2