Date	**01 NOVEMBER 2025**
Team ID	NM2025TMID01728
Topic Name	Streamlining Ticket Assignment for efficient support operation
Maximum Marks	4 Marks

Performance and Testing

Streamlining Ticket Assignment for Efficient Support Operations

This section details the performance metrics and testing strategies employed to validate the effectiveness of the streamlined ticket assignment solution. Our goal is to ensure the system not only functions correctly but also delivers tangible improvements in speed, accuracy, and overall support efficiency.

Key Performance Indicators (KPIs)

To measure the success of our streamlined ticket assignment, we established several critical KPIs:

1. **Ticket First Assignment Time (TFAT):** The time from ticket creation to its first assignment to an agent.
    - *Target:* Reduce TFAT by 60% compared to manual assignment.
2. **Assignment Accuracy Rate (AAR):** The percentage of tickets correctly assigned to the appropriate team or agent on the first attempt, without requiring re-assignment due to incorrect routing.
    - *Target:* Achieve an AAR of 95% or higher.
3. **Agent Satisfaction Score (ASS):** A measure of agent feedback regarding the ease of use and effectiveness of the new assignment system.
    - *Target:* Increase ASS by 20%.
4. **Ticket Reassignment Rate (TRR):** The percentage of tickets that are reassigned more than once after the initial assignment.
    - *Target:* Reduce TRR by 50%.
5. **Average Handle Time (AHT) for Assigned Tickets:** While not directly an assignment metric, efficient assignment is expected to indirectly reduce AHT by ensuring tickets land with the right specialist faster.
    - *Target:* Indirect reduction in AHT by 10%.

Testing Strategy

Our testing strategy encompasses multiple phases, from unit testing individual components to comprehensive end-to-end user acceptance testing.

1. Unit Testing

Individual modules of the assignment logic (e.g., keyword recognition, agent capacity check, skill-based routing rules) are tested in isolation to ensure they function as expected. This involves feeding various test cases and verifying output.

2. Integration Testing

This phase focuses on testing the interactions between different components of the assignment system and external systems (e.g., the ticketing platform, agent status APIs). This ensures seamless data flow and correct execution across the entire workflow.

3. Performance Testing

We simulate high volumes of incoming tickets to evaluate the system's responsiveness and stability under load. This helps identify any bottlenecks and ensure the system can handle peak operational demands without degradation.

4. User Acceptance Testing (UAT)

A select group of support agents and team leads actively use the new assignment system in a controlled environment. Their feedback is crucial for refining the user experience and validating that the solution meets their real-world needs. Scenarios include: * New ticket creation and automated assignment. * Manual override of assignments. * Agent status changes impacting assignment.

5. A/B Testing (Pilot Program)

For a specific period, a subset of support teams operates using the new automated assignment system, while others continue with the traditional method. This allows for direct comparison of KPIs in a live environment, providing empirical evidence of the new system's benefits.

Performance Monitoring Post-Deployment

Upon successful deployment, continuous monitoring will be in place to track the defined KPIs. Dashboards will provide real-time insights into system performance and efficiency gains.