IDEATION PHASE

STREAMLINING TICKET ASSIGNMENT FOR EFFICIENT SUPPORT OPERATIONS

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1. Problem Statement

In large technology companies, customer support teams handle hundreds of support tickets daily. These tickets relate to different products, services, or technical issues. Currently, most organizations rely on manual processes to assign tickets to the appropriate departments or agents. This manual routing causes several issues such as delays, incorrect ticket allocation, and uneven workload distribution among support staff.

ABC Corporation, for example, faced frequent backlogs and slower response times because of this manual ticket routing system. As a result, customers experienced delayed resolutions and dissatisfaction, while employees spent unnecessary time sorting tickets instead of resolving them.

Therefore, there is a strong need for a smart and automated ticket assignment system that can efficiently categorize and assign tickets to the right teams based on the nature of the issue, keywords, or historical data. This would enhance productivity, accuracy, and overall customer experience.

2. Purpose

The main purpose of this project is to design and implement an intelligent ticket assignment system that automates the process of routing customer support requests to the appropriate teams. The system aims to minimize manual effort, reduce resolution time, and improve the efficiency of support operations.

By using a combination of rule-based logic and intelligent classification methods, the system will identify the issue type from the ticket description and automatically assign it to the most suitable support group.

This project focuses on improving speed, accuracy, and customer satisfaction in handling support queries.

Empathy Map Canvas

Who are we empathizing with?

* Customer support agents who manage large volumes of support tickets.

* Support team leads who monitor and distribute tickets.

* End-users or customers who expect timely responses and quick problem resolution.

Goals

* To ensure tickets are assigned to the correct team without delays.

* To balance workloads among team members effectively.

* To improve response time and overall customer satisfaction.

* To reduce manual intervention in ticket management.

Pain Points

* Time-consuming manual ticket categorization.

* Frequent misrouting of tickets to wrong departments.

* Increased workload on certain teams while others remain underutilized.

* Frustration among customers due to delayed resolutions.

* Lack of transparency and tracking in ticket flow.

Needs

* A reliable system that can automatically detect the issue type.

* A user-friendly interface to monitor and track ticket assignments.

* Consistent and accurate ticket routing.

* Reduced workload for human agents.

Empathy Map Summary

Through empathy mapping, we realized that both support agents and customers suffer due to inefficient manual processes. Agents feel overburdened, while customers lose trust when their issues are not resolved promptly. Therefore, the project's goal is to introduce an automated, intelligent system that benefits both sides by increasing efficiency, accuracy, and customer satisfaction.

Brainstorming

Ideas Generated

1. Rule-Based Ticket Routing:

Define specific keywords and rules that automatically route tickets to the correct departments (e.g., “login issue” → Authentication Team).

2. AI-Powered Classification:

Use machine learning or natural language processing (NLP) to classify tickets based on past data and ticket content.

3. Priority-Based Assignment:

Automatically identify and flag high-priority issues for immediate attention.

4. Dashboard Integration:

Create a centralized dashboard to track, assign, and monitor tickets in real time.

5. Feedback Loop:

Include an agent feedback mechanism to continuously improve classification accuracy.

Key Questions

How can we ensure accuracy in automatic ticket classification?

Should we use a purely rule-based or AI-based model, or a hybrid approach?

How will the system handle ambiguous or new types of tickets?

What metrics will measure success (accuracy, time saved, satisfaction rate)?

How can we maintain scalability as the number of tickets increases?

Key Challenge

The major challenges identified include:

* Designing an algorithm capable of understanding varied and complex ticket descriptions.

* Ensuring data privacy and maintaining confidentiality of customer information.

* Integrating the new system with existing ticket management tools (like Zendesk, Freshdesk, etc.).

* Handling multilingual or poorly written tickets.

* Balancing automation with the flexibility of manual control when needed.

Overcoming these challenges requires a thoughtful design, iterative testing, and user feedback to ensure that the system remains accurate and reliable under real-world conditions.

Objective

The key objectives of the project are:

1. To automate ticket routing using intelligent classification methods.

2. To minimize human intervention in the ticket assignment process.

3. To improve efficiency and reduce the average ticket resolution time.

4. To enhance customer satisfaction through faster and accurate responses.

5. To create a scalable and adaptable system that can be easily integrated with different support platforms.