

Solution Approach

1. Introduction

The **Customer Service Platform** is designed to streamline customer interactions by enabling users to submit categorized queries and seamlessly integrates with Intercom for real-time support. The solution ensures secure user authentication, efficient query management, and effective communication between users and support agents.

2. Objectives

The primary objectives of the solution are:

- **Secure user authentication** using Google OAuth.
 - **Efficient query categorization** and management.
 - **Seamless integration** with Intercom for enhanced user-agent communication.
 - **Persistent data storage** and retrieval using MongoDB.
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3. System Architecture

High-Level Architecture:

- **Frontend:** Built with **React** and **Tailwind CSS**, the frontend handles user interactions, query submissions, and displays categorized data.
 - **Backend:** Developed using **Node.js** and **Express.js**, the backend manages authentication, API endpoints, and integration with Intercom.
 - **Database:** **MongoDB** is used for persistent storage of user and query data.
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4. Key Features

- **Secure Authentication:** Google OAuth ensures safe login and session management.
 - **Query Categorization:** Organized display and retrieval of queries by category.
 - **Real-Time Support:** Intercom integration facilitates instant communication between users and support agents.
 - **Data Persistence:** MongoDB ensures reliable storage and retrieval of data.
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Solution Workflow

4.1 User Authentication

1. Users log in via **Google OAuth**.
 2. The backend verifies the Google token and generates a session for the user.
 3. On successful login, users are redirected to the dashboard.
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4.2 Query Submission and Management

1. Users can create a new request by selecting a category and adding a comment.
 2. The frontend sends the request data to the backend via the `/services` POST API.
 3. The backend saves the data in **MongoDB** under the appropriate category.
 4. Queries are displayed in their respective categories on the dashboard.
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4.3 Intercom Integration

1. The **Intercom widget** is embedded in the frontend for direct communication with support agents.
 2. Each query submitted by the user is also sent to **Intercom** via the backend.
 3. Support agents can interact with users directly through **Intercom**.
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4.4 Logout Functionality

1. Users can securely log out by clicking the **Logout** button, which ends the session and redirects them to the login page.
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5. Technologies Used

Component	Technology
Frontend	React, Tailwind CSS, TypeScript
Backend	Node.js, Express.js, TypeScript
Database	MongoDB
Third-Party Tools	Intercom API, Google OAuth

6. Conclusion

The proposed solution effectively addresses the challenges of managing customer queries by integrating secure authentication, query categorization, and real-time support. The system is scalable, user-friendly, and enhances the overall customer experience.