Online Customer Support System

This project report details the development of an Online Customer Support System, a scalable, cloud-based platform built on Amazon Web Services (AWS). The system streamlines customer support, offering secure user authentication, flexible ticket management, and automated routing. Administrators gain comprehensive control over managing tickets, resolving issues, and generating analytical reports.

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Acknowledgement & Project Overview

Gratitude

Expressing gratitude to the Chancellor, Director of Academics, Director, Principal, and Course Faculty for their support and guidance.

System Overview

The Online Customer Support System is a scalable, cloud-based platform enabling users to easily raise, track, and resolve support queries. It offers secure authentication, flexible ticket management, and automated routing.
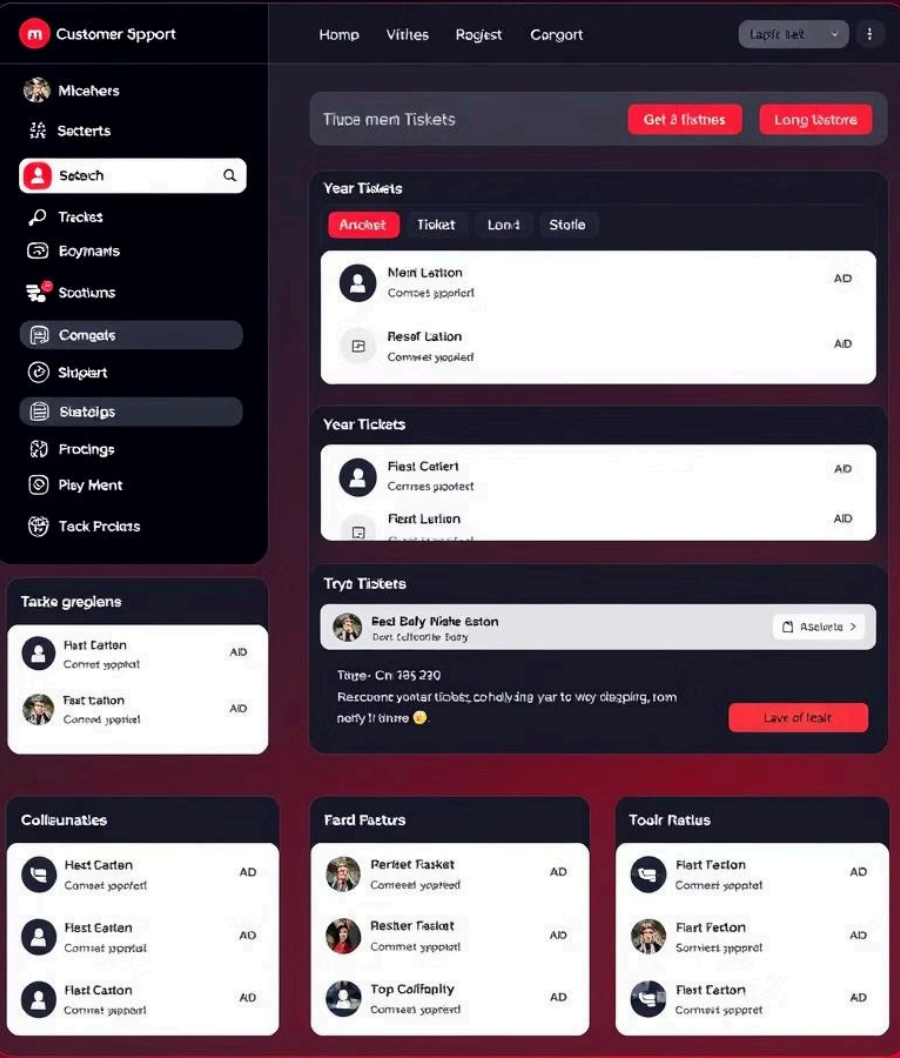
Introduction to the System

1 **Comprehensive Platform**

Provides access to support for various digital services, streamlining the customer support process.

2 **Robust Cloud Infrastructure**

Built on AWS, ensuring scalability, reliability, and enhanced performance to handle varying customer support demands.

3 **Security Focus**

Implements secure authentication and communication methods to protect user interactions and data.

Problem Statement & Objectives

Challenges

Traditional systems lack scalability, real-time updates, and efficient handling of multiple services. Data security and cloud integration are complex.

Objectives

- Secure Communication
- Scalable Cloud Infrastructure
- Real-Time Ticket Updates
- Administrative Control
- Automated Ticket Assignment

Frontend & Backend Design

1

Frontend Design

Home page, support catalog, ticket detail page, user dashboard, and ticket submission page.

2

Backend Design

Database management using AWS RDS, ticket management, reporting, and AWS integration.

AWS Integration Details

Service	Function
AWS RDS	Database Management
AWS S3	File Storage, Data Backup
AWS Lambda	Serverless Functions
AWS API Gateway	API Management
AWS SNS	Notifications
AWS CloudWatch	Monitoring & Logging
AWS IAM	Security

Java Code Snippets

The provided Java code demonstrates the core functionalities of the system, including database interaction (using JDBC), AWS S3 file upload, and Cognito user authentication. Error handling and exception management are crucial aspects of robust code.

Conclusion & Further Development

The Online Customer Support System provides a user-friendly and secure platform for managing customer queries. Leveraging AWS ensures scalability, security, and reliability. Future development could include advanced analytics, chatbot integration, and multilingual support.