Metro Ticket Booking System Using ServiceNow

Introduction

With the rapid expansion of urban populations, metro rail networks have become an essential mode of public transportation due to their speed, reliability, and environmental benefits. Despite this, many metro systems still rely on conventional ticketing methods such as physical counters and paper-based tickets. These approaches often result in overcrowding at stations, longer waiting times, manual processing errors, and increased use of paper, negatively affecting both passengers and metro authorities.

The **Digital Metro Ticket Booking System developed on ServiceNow** aims to overcome these limitations by introducing a streamlined, automated, and user-centric ticketing solution. By utilizing ServiceNow features such as the Service Catalog, Flow Designer, automation logic, and notification services, the system enables passengers to book metro tickets online and receive QR-code-enabled digital tickets instantly.

This project establishes a scalable and future-ready platform that can be extended with mobile applications, WhatsApp-based booking, advanced analytics, and real-time passenger insights. Through a simple and intuitive portal, commuters can enter journey details, while the system handles fare computation, ticket creation, and notification delivery automatically. As a result, the solution enhances commuter satisfaction and simplifies metro operations.

Purpose of the Project

The main purpose of this project is to transform the traditional metro ticketing process into a **fully automated digital system** using the ServiceNow platform. It replaces manual ticket issuance and paper-based workflows with a secure, fast, and reliable online booking mechanism.

Automation significantly reduces human involvement in fare calculation and ticket generation, ensuring accuracy and consistency. The system improves the passenger experience by providing immediate access to QR-code-based tickets while helping metro authorities reduce operational workload. Additionally, the project supports cashless transactions and environmentally responsible practices by eliminating paper tickets.

Business Objective

The business objective of the **Digital Metro Ticket Booking System** is to enhance commuter convenience, optimize operational efficiency, and improve revenue visibility through an automated ticketing platform.

Key business goals include:

- Minimizing queues at metro stations through online ticket booking
- Eliminating manual fare calculation errors via automation
- Improving operational productivity by reducing manual processes
- Encouraging digital payments such as UPI, debit/credit cards, and wallets
- Providing centralized visibility of ticket transactions using ServiceNow
- Enabling data-driven decision-making through digital ticket analytics
- Supporting sustainability by reducing paper consumption

By achieving these objectives, metro authorities can deliver faster, more dependable services while controlling costs and improving overall efficiency.

Project Scope Overview

The scope of this project covers the **complete automation of metro ticket booking** using the ServiceNow platform. It includes the development of a Service Catalog item that allows passengers to submit ticket requests by entering journey information such as source station, destination station, passenger category, and ticket quantity.

Once the request is submitted, automated workflows are triggered through Flow Designer to calculate fares, generate QR-code-based digital tickets, and send notifications to users. The system supports multiple user roles, including passengers, station supervisors, metro operations teams, and IT administrators. Role-based access ensures secure interactions and smooth operational management.

Conclusion

The **Digital Metro Ticket Booking System in ServiceNow** provides a modern and efficient alternative to traditional metro ticketing practices. By automating ticket booking, fare computation, and QR code generation, the system greatly enhances commuter convenience while reducing operational complexity for metro authorities.

This solution not only improves transparency and efficiency but also lays the foundation for future enhancements that can further modernize urban public transportation systems, making metro travel smarter, faster, and more sustainable.