1. Group Members

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2. Problem Statement

With the rapid increase in urban commuting, efficient and user-friendly ticketing solutions are essential for metro transportation systems. This project aims to develop a mobile application for metro ticket booking, offering a smooth and hassle-free experience for users. The app will allow users to purchase tickets, view schedules, locate stations, and check fare details—simplifying the commuting process.

3. Technology Selected – Android

The app is built using Android as the primary development platform to ensure accessibility for the majority of smartphone users. Technologies include Android SDK, Java, SQLite database, Firebase for real-time ticket booking updates, and Google Maps API for station navigation.

4. Keywords

- Metro Ticket Booking
- Android App
- Pune Metro
- Online Ticketing System
- Navigation and Schedules

5. Abstract

This project presents a Metro Ticket Booking App inspired by the Pune Metro app, designed to streamline the booking and commuting experience. The app enables users to book tickets, view real-time schedules, and locate metro stations. With a user-friendly interface, the app facilitates easy payments and supports ticket cancellation . The inclusion of fare calculation, and station navigation enhances the commuter experience. Using Firebase for cloud storage and real-time updates ensures high availability and reliability. The app targets daily commuters and occasional travelers, aiming to make metro travel more accessible and convenient.

6. Module-wise Scope

- **User Registration and Login:** User authentication and profile management.
- **Ticket Booking and Payment:** Allows booking of tickets, selection of destinations, and secure payment options.
- **Fare Information:** Displays metro map and fares.

- **Station Navigation:** Integrates Google Maps for station locating and navigation.
- **Ticket History:** Maintains booking history and facilitates refunds when needed.

7. Technological Features Covered

- **Firebase Integration:** For real-time data updates and cloud storage.
- **Material Design UI:** For an intuitive and responsive user interface.
- **Java for Android:** As the core development language for app functionality.

8. Conclusion

The Metro Ticket Booking App offers an innovative solution for modern urban transportation needs, focusing on ease of use, security, and functionality. By implementing the latest Android technologies and cloud-based solutions, the app enhances user experience, optimizes travel planning, and supports the broader adoption of public transit systems.

9. References

- Pune Metro Mobile App: Functional and UI Reference.
- Android Developer Documentation.
- Firebase Documentation and Google Maps API.