Business Model Canvas

Designed via AltexSoft BMC Tool

Key Partnerships

- **Metro Rail AuthoritiesRole:** Provide operational data, ticket pricing, schedules, and infrastructure access.Benefits: Ensure accurate information and seamless integration with the metro systems (e.g., turnstiles, gates).Partnership Details: Licensing agreements for API access and backend integration.
- **Payment Service ProvidersRole:** Enable secure and diverse payment options (credit/debit cards, UPI, digital wallets).Potential Partners: PayPal, Stripe, Razorpay, Paytm, Google Pay.Benefits: Enhance convenience with multiple payment options.
- **Government or Regulatory BodiesRole:** Ensure compliance with transport regulations and security requirements.Benefits: Smooth approvals for the app's operation in metro transport systems.
- **Technology VendorsRole:** Supply hardware and software for integration (e.g., NFC, QR-code readers, biometric scanners).Potential Partners: HID Global, Zebra Technologies, or local vendors.

Key Activities

- **Research & AnalysisUser Research:** Conduct surveys, interviews, and focus groups to understand user pain points, needs, and expectations regarding metro transport.Competitive Analysis: Study similar applications (e.g., public transit apps) to identify best practices and areas for innovation.
- **Application DesignUI/UX Design:**Create wireframes and prototypes to visualize the user journey.Ensure an intuitive interface for ticket booking.

Key Resources

- **Technical ResourcesMobile App Development Frameworks:**React Native or Flutter for cross-platform mobile application development (iOS & Android).
- **Backend Development:**Node.js, Python (Django/Flask), or Java for building robust backend services.Cloud services (AWS, Google Cloud, Microsoft Azure) for scalable storage and hosting.
- **QR Code or NFC Technology:**QR code generation for e-ticketing and boarding.

Value Propositions

- **Convenient E-Ticket BookingUser-Friendly Interface:** Simplify ticket purchasing with an intuitive design, offering options for single journeys, round trips, and multiple-use passes.
- **Speedy Boarding ProcessesQR Code-Based Tickets:** Generate scannable QR codes that can be quickly verified at automated gates.NFC Integration: Support Near Field Communication (NFC) for tap-to-board convenience.Smart Card Recharge: Enable easy recharging of metro smart cards directly through the app.
- **Real-Time Updates and NotificationsLive Train Timings:** Show real-time updates on train schedules, delays, and platform changes.Crowd Status: Provide crowd density information for upcoming trains to enhance comfort and safety.
- **Integrated Route PlanningMulti-Modal Journey Planner:** Combine metro routes with other transportation modes (e.g., buses, taxis) for end-to-end navigation.Offline Mode: Allow users to access saved routes or metro maps without an internet connection.

Customer Relationships

- **Account Management:** Allow users to create and manage accounts with secure login.
- **Real-Time Route Information:** Display metro routes, schedules, and live train tracking.
- **Fare Calculation:** Auto-calculate fares based on selected routes and ticket type.
- **Payment Options:** Support multiple payment methods (credit/debit cards, UPI, mobile wallets)

Channels

- **Technical Stack & ToolsMobile Development Framework:**React Native or Flutter: Cross-platform frameworks that work on both iOS and Android devices.
- **Backend Development:**Node.js or Django: For the backend server to handle APIs, user management, and payment integration.
- **Database:**MongoDB (NoSQL) or PostgreSQL (SQL) for storing user and transaction data.

Customer Segments

- **Daily CommutersNeeds:** Quick ticketing, subscription plans, route optimization, schedule reliability, and minimal boarding delays.
- **Features:**Monthly/weekly pass purchases.Real-time train schedule updates.
- **Occasional TravelersNeeds:** Easy access to ticketing, simplified navigation, and information on fares.
- **Features:**Single-use ticket purchases.Interactive metro maps with route guidance.
- **Tourists/VisitorsNeeds:** Multilingual support, easy onboarding, and integration with city attractions.
- **Features:**Guided tutorials for app usage and travel.Special tourist passes with city attraction discounts.
- **Senior Citizens and Differently-abled Individuals:**
- Needs: Accessibility options, support services, and safe travel.
- Features:Text-to-speech and high-contrast UI modes.Priority seat availability information.
- **Business Travelers:**

Cost Structure

- **Development CostsApp Design & UI/UX:** This involves the creation of user-friendly interfaces and the overall experience of the app.Cost: $10,000 - $25,000
- **App Development**: Costs for coding, backend setup, and integration with metro systems.Cost: $50,000 - $150,000 (depending on complexity and platform - Android, iOS, or cross-platform).
- **Infrastructure and Hosting CostsCloud Hosting/Servers:** To manage user data, transaction records, and real-time metro updates.Cost: $1,000 - $5,000/month (depending on user base and data needs).
- **Payment Gateway FeesTransaction Fees:** Integration with e-payment systems for ticket purchases.Cost: Typically around 2% - 3% of each transaction.
- **Marketing & User Acquisition CostsApp Promotion:** Includes advertising, digital marketing, and partnerships with metro authorities.Cost: $10,000 - $50,000 (depends on scale and target region).
- **Security and Compliance CostsData Security:** Implementation of encryption, secure payment systems, and ensuring user data protection.Cost: $5,000 - $15,000 for security implementation.
- Cost: $2,000 - $5,000 for compliance audits and legal consultations.

Revenue Streams

- **App Featuresa, E-ticket BookingTicket Purchase:** Users can purchase tickets directly through the app for single, return, or multi-ride passes.Mobile Ticketing: Passengers receive digital tickets, QR codes, or NFC-based tickets that can be scanned directly at the station gates.
- **Multiple Payment Options:** Integrate with credit/debit cards, mobile wallets (like Apple Pay, Google Pay), and metro-specific payment systems. **Discounts & Offers:** The app can offer discounts for frequent travelers, students, seniors, or groups. **Journey Planner:** A feature to plan trips, showing optimal routes, connections, estimated travel time, and ticket prices.
- **Boarding Process Speed UpQR Code Scanning:** Instead of using physical tickets, passengers can scan their QR codes from the app for fast entry and exit.
- **Additional Features for ConvenienceLive Train Tracking:** Real-time updates on train schedules, arrivals, and delays.Station Amenities Information: Information on available services such as restrooms, Wi-Fi, elevators, or customer service.