

Project Brief

Cashless Transport Payment Prototype

Overview

Built a prototype for a **digital ticketing system** that allows users to top up wallets, pay for rides, and check balances. The project demonstrates how a modern payment workflow can be implemented for transport operators, with a clear API and lightweight frontend interface.

Technologies Used

- Backend: Bun (Elysia)
- Database: PostgreSQL
- Frontend: VueJs
- DevOps: GitHub Actions (CI/CD), automated tests

Architecture

User Wallet → Bun API → PostgreSQL → VueJs UI

Implementation Details

- Designed database schema (users, wallets, transactions) and API contracts.
- Implemented backend endpoints: /topup, /pay, /balance.
- Developed Svelte-based UI for wallet management and ride payments.
- Added automated testing and GitHub Actions pipeline for continuous deployment.
- Finalized documentation with screenshots of the working system.

Key Outcomes

- Delivered a **full-stack payments prototype** with end-to-end functionality.
- Showcased how micro-transaction systems can be built with modern tooling.
- Validated approach for **cashless ticketing systems** suitable for transport operators.