

We will focus on the **Logic and Security** of the code itself. Here is the documentation and prototype structure for the **Penuel Unified Prototype**, built from scratch with a "Security-First" developer mindset.

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## 1. Local Security Architecture (The "Safe Lab")

Even without a VPS, we must code as if the system is live to prevent "Systemic Security Risks."

- **Environment Shadowing:** We will use a `.env.local` file. This is a local text file that holds your "Mock" API keys. React is configured to never include this file in a public build, so your secrets stay on your machine.
  - **Zero-Trust Components:** We will write "Validation Logic" inside every React component. If a user tries to enter a negative amount in the **Car Wash** package selector, the code will reject it before it even tries to process a payment.
  - **Sanitized Data Binding:** We will strictly use React's `{curly brace}` syntax for rendering. This ensures that even if we "mock" data from a text file, it can never execute malicious scripts.
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## 2. Project Logic Structure

We are building a **Multi-Tenant Prototype**. This means one codebase that "switches" its personality based on which branch you are testing.

### Folder Hierarchy

Plaintext

```
/penuel-unified-prototype
├── /public      # Static assets (Logos for Plaza & Stopover)
└── /src
    ├── /components  # Reusable UI (Buttons, Cards, Nav)
    ├── /context     # The "Empire" Brain (Handles the Business Switcher)
    ├── /data        # Local JSON files (Replacing the live database for now)
    │   ├── retail.json  # Data from your retail.txt
    │   └── services.json # Data from your services.txt
    ├── App.js       # The Root Controller
    └── index.js     # The Entry Point
└── .env.local    # WHERE SECRETS HIDE (Local only)
```

```
└── package.json    # Project Manifest
```

### 3. The "Business Switcher" Logic (The Prototype Core)

This is how we handle the **Plaza vs. Stopover** logic without needing a complex backend.

Logic Layer	Purpose	Security Benefit
<b>Theme Toggler</b>	A simple JS function that changes the CSS variables (Gold vs. Green).	No hardcoded styles; easy to audit.
<b>Data Filter</b>	If <code>activeBusiness === 'Stopover'</code> , the system only loads data from <code>services.json</code> .	Prevents "Data Leaking" between business units.
<b>Mock Gateway</b>	A function that simulates an M-Pesa STK push. It "waits" for 3 seconds then returns a "Success" code.	Allows us to build the "Success/Fail" UI screens without spending a cent on transaction fees.