HomiTech - Smart Home Simulator

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The Team

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Problem statement

- **Problem:** inefficient management of connected devices in a smart home
- **Impact:** suboptimal utilization of smart home capabilities
- **Affected:** homeowners and users struggling with managing multiple devices

Solution Overview

- Centralization of smart home devices
- Graphical representation of home and connected devices
- Automation of household tasks
- Simplified interaction between heating, lighting, and ventilation devices

Benefits

Reduced energy consumption

Remote monitoring

Automation

Improved Security

Main Features: Dashboard

- Display Profile Details
- Display all modules

- Display Console Output
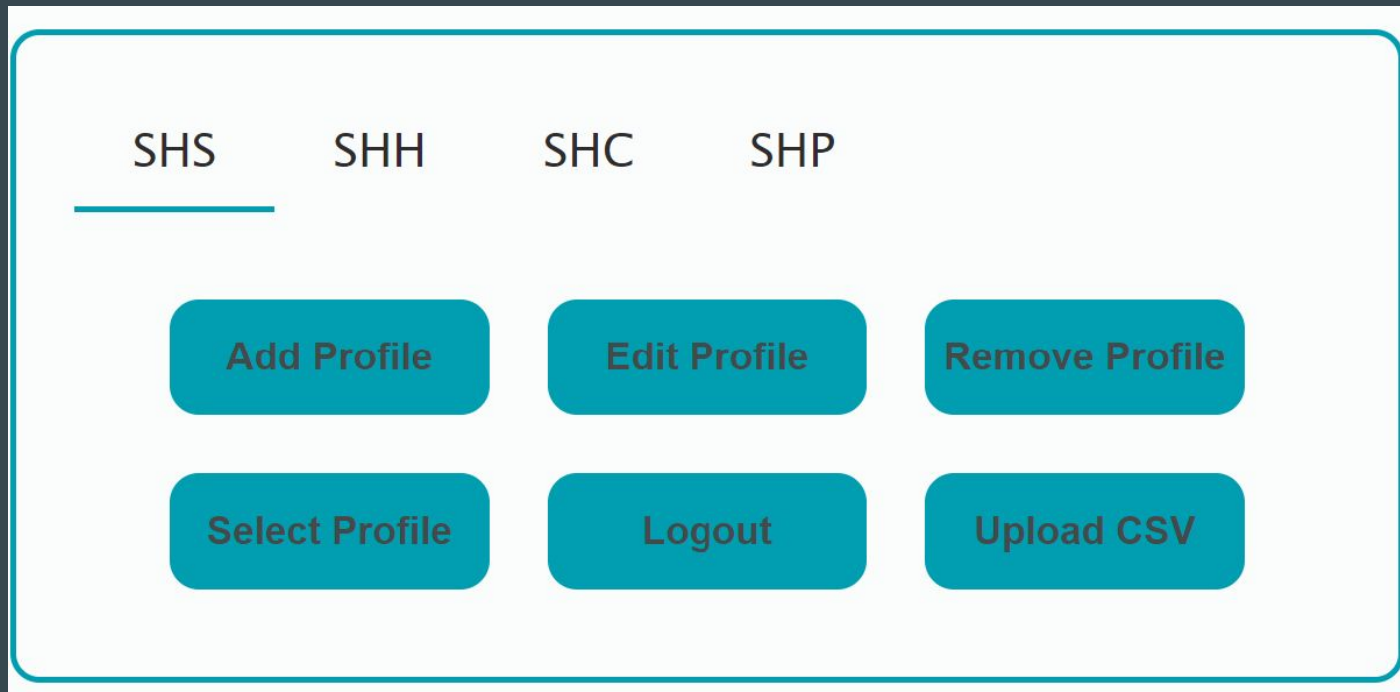- Display HouseLayout

Main Features : Dashboard Legend
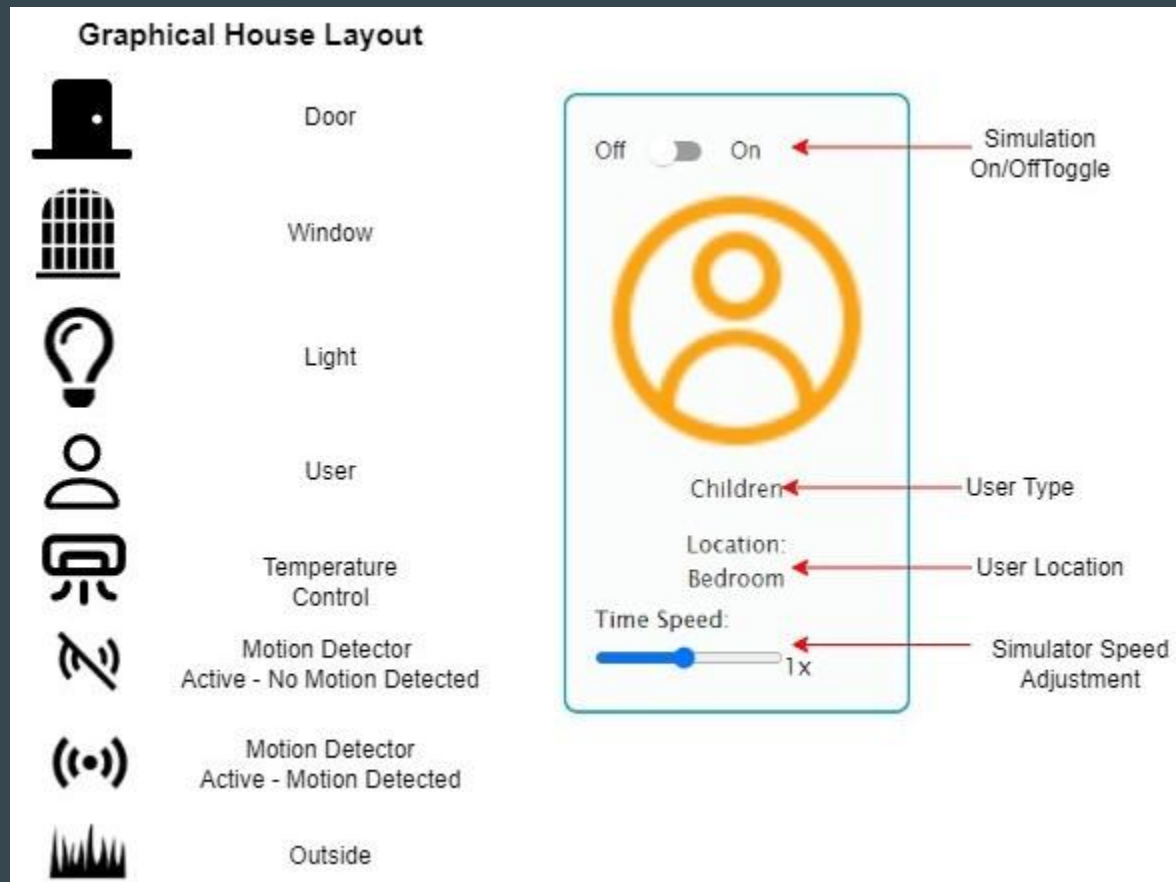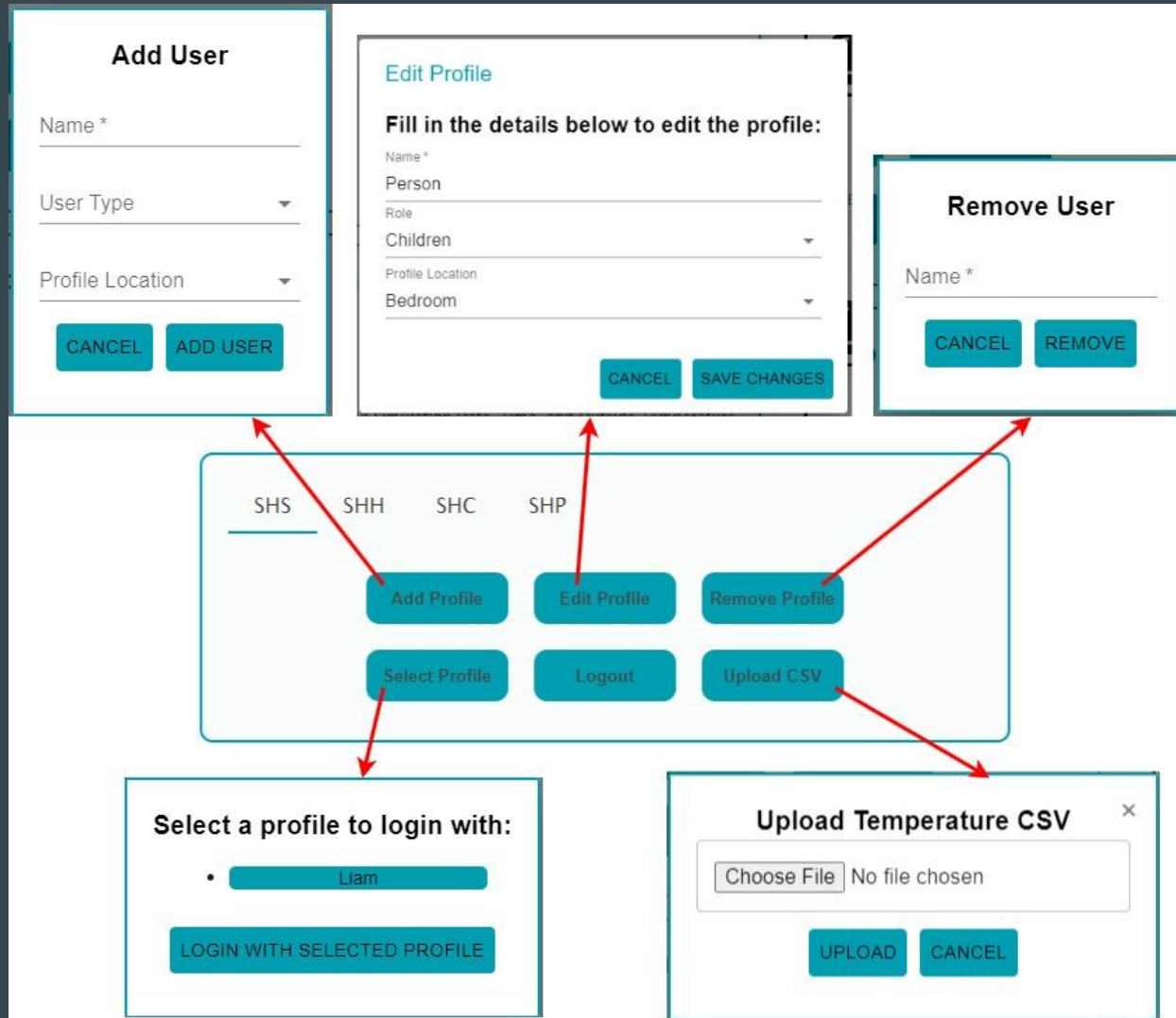
Main Features:
SHS Tab
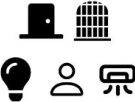
- Add/Edit/Remove/Select Profile
- Logout
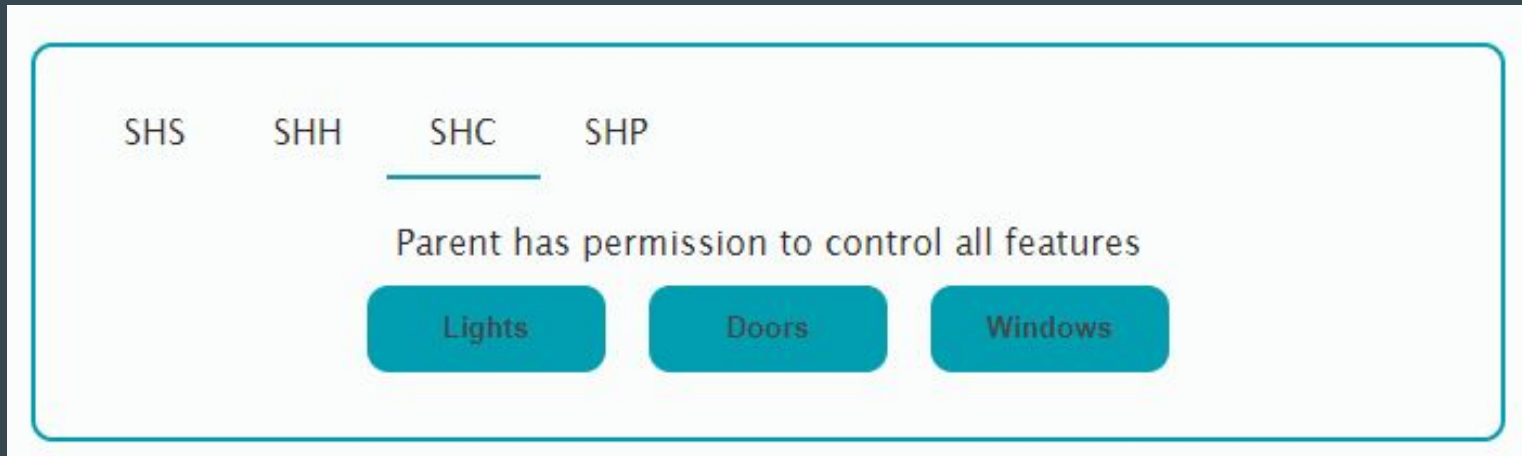- Upload a CSV for date,time and temperature

Main Features:
SHS Tab Detailed View

Main Features:
Core Functionality Module

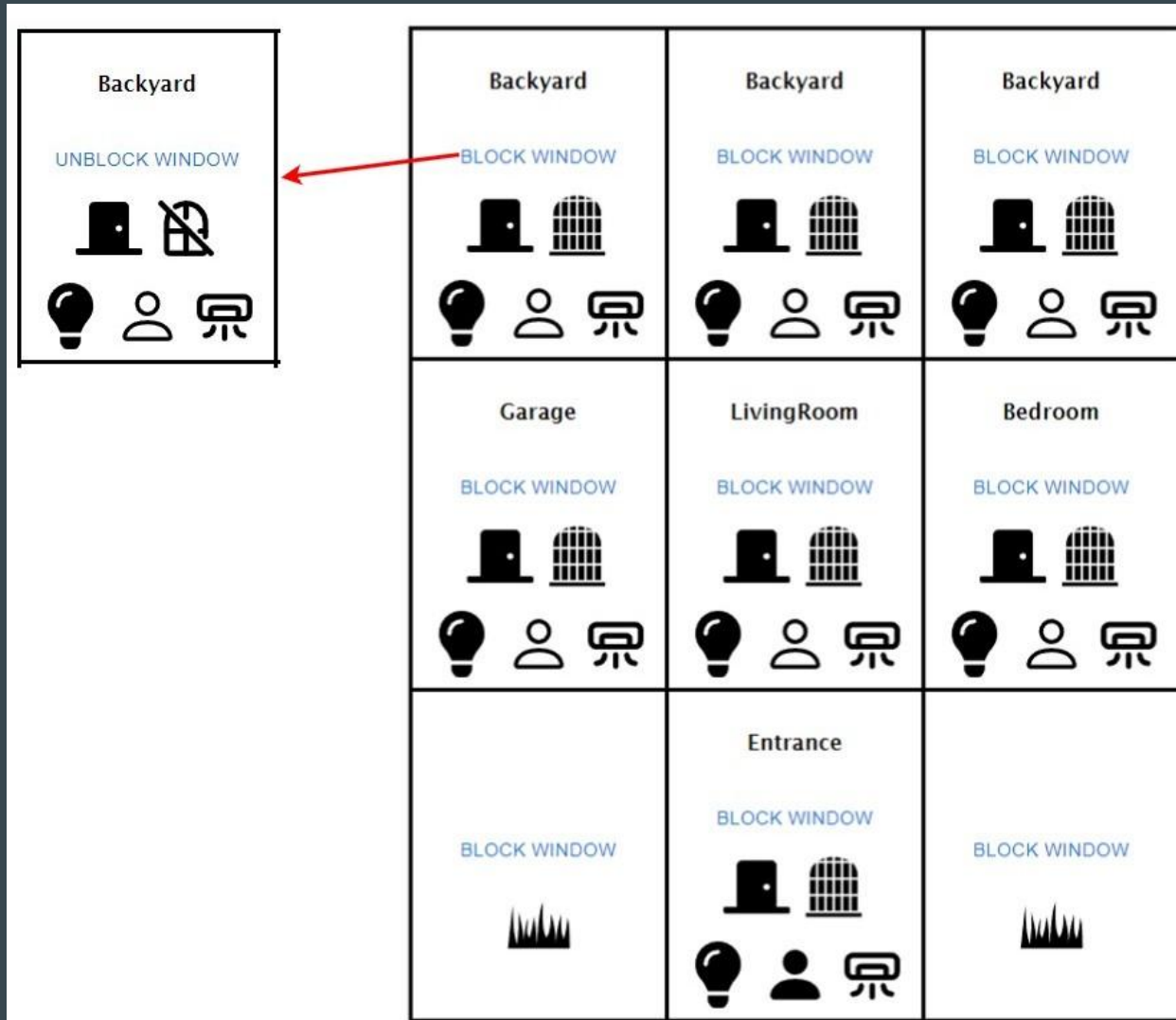- Control windows/doors
- Lights
- Auto mode

Main Features:
Core Functionality Module Detailed View
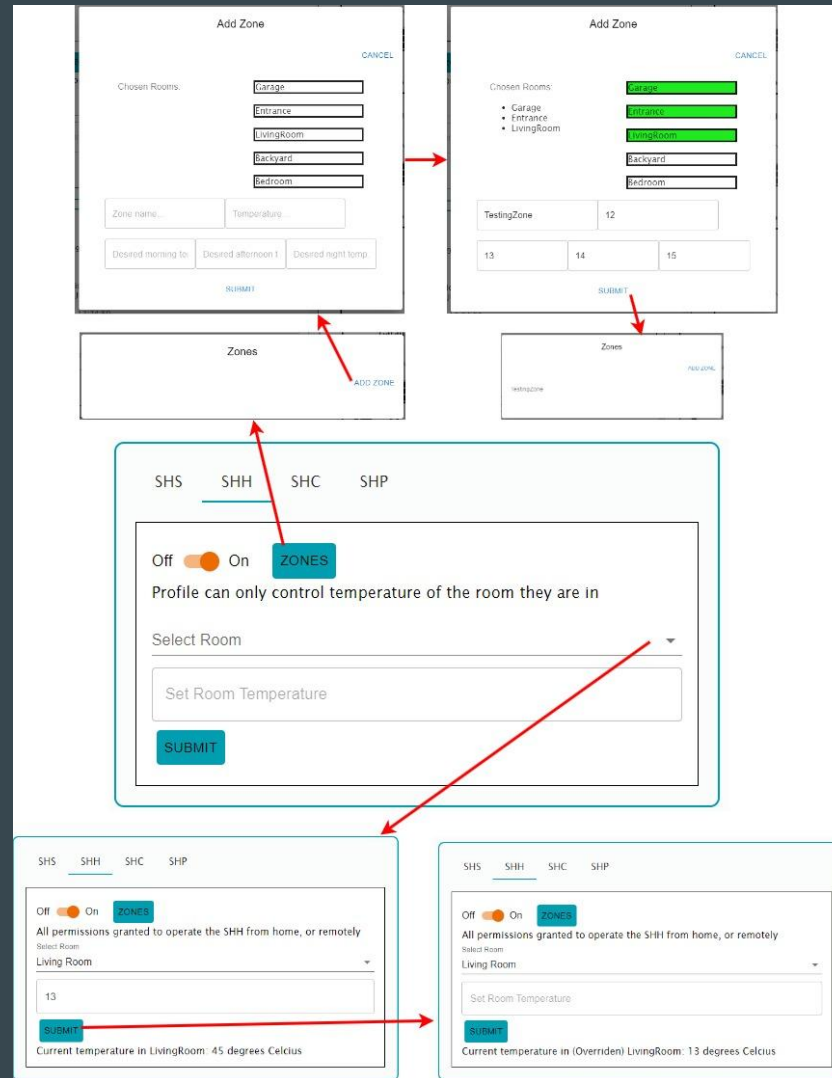
Main Features:
Core Functionality Module

Main Features: Heating Module

- Zone-based temperature control

- Motion-based monitoring
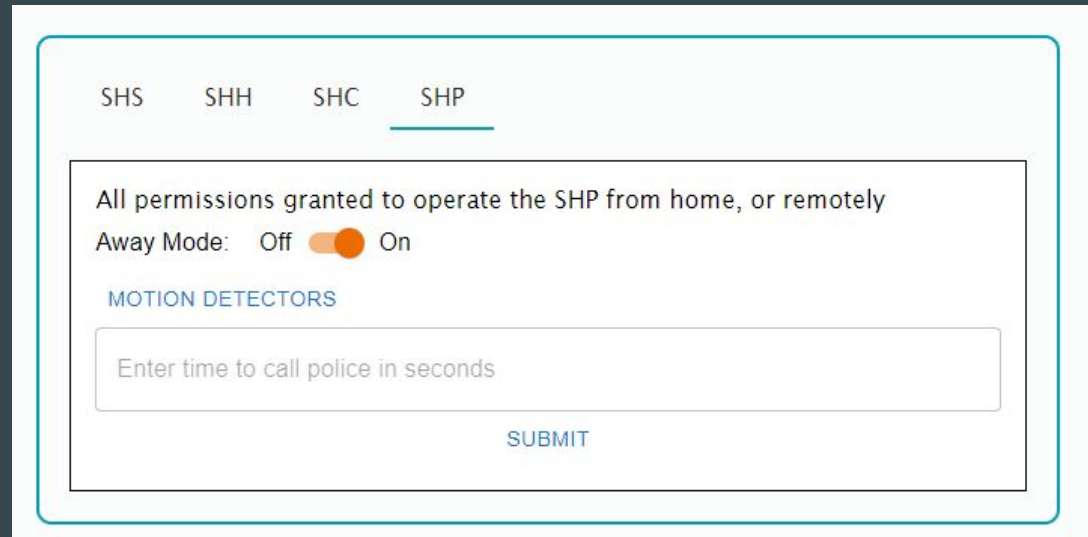
- Temperature monitoring

- Alerts for unusual behavior

Main Features:
Heating Module Detailed View

Main Features:
Security Module

- Away mode

- Alert notifications

- Motion detection

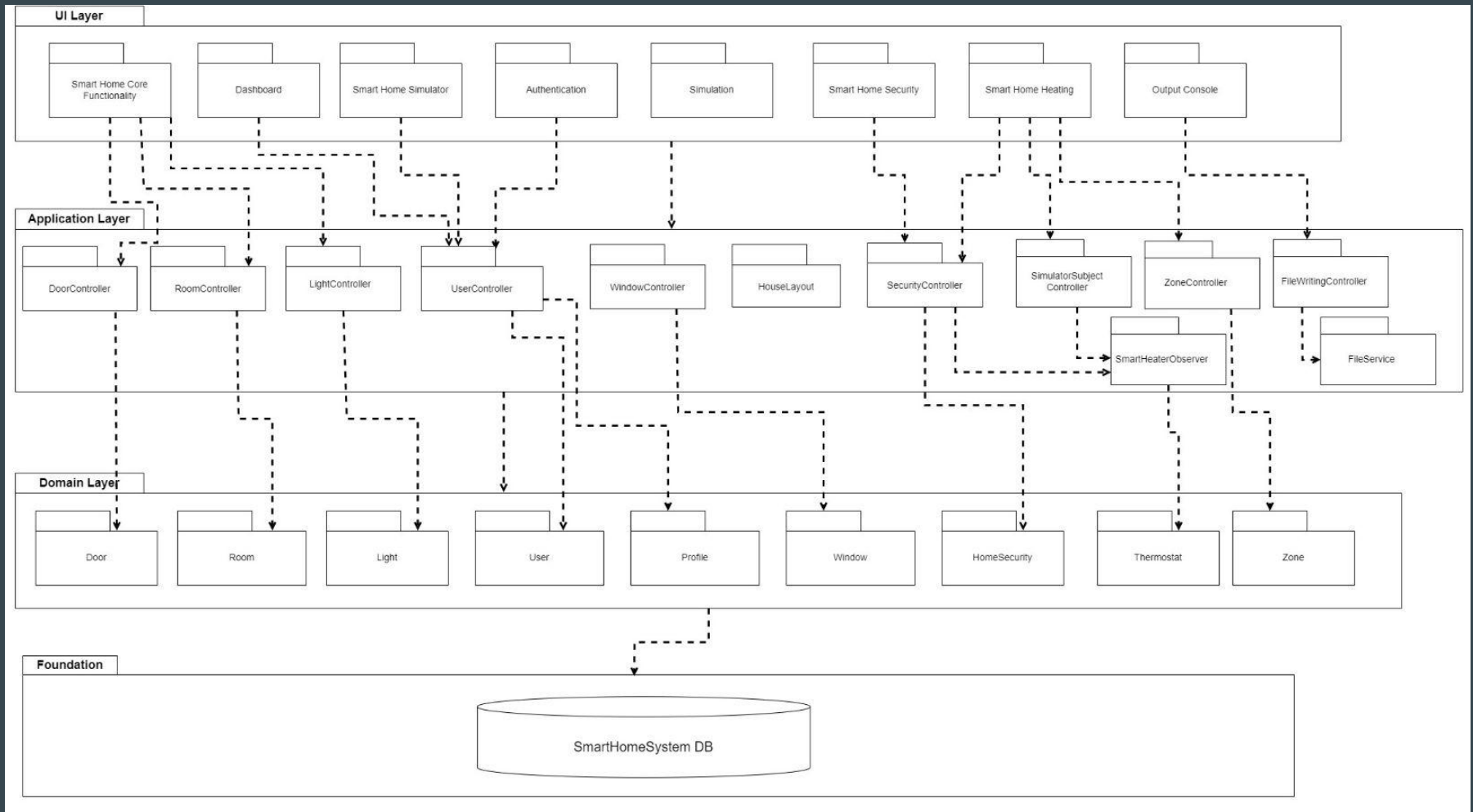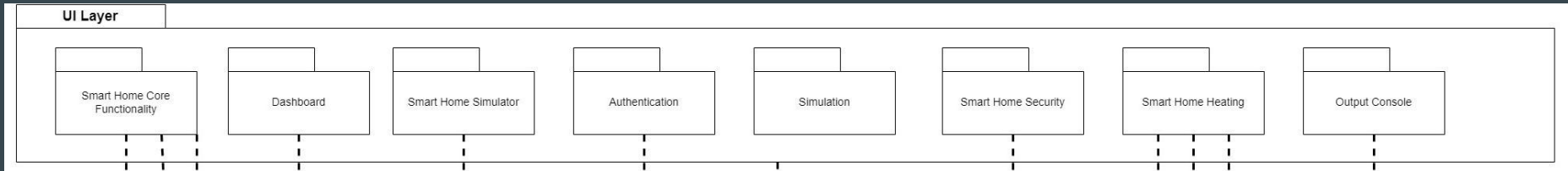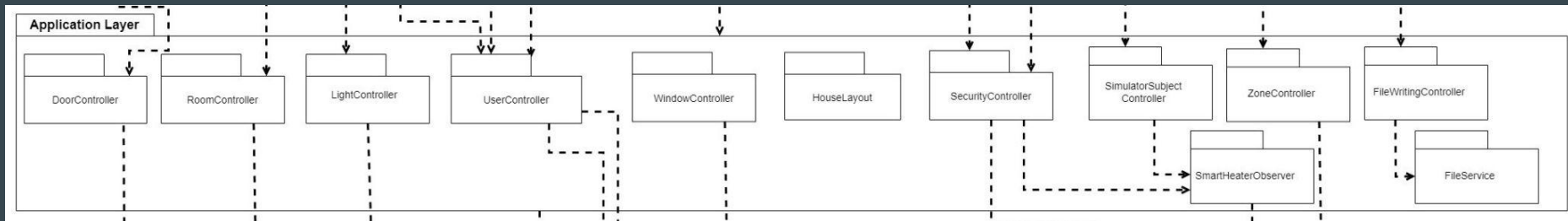# Main Features:
Security Module Detailed View
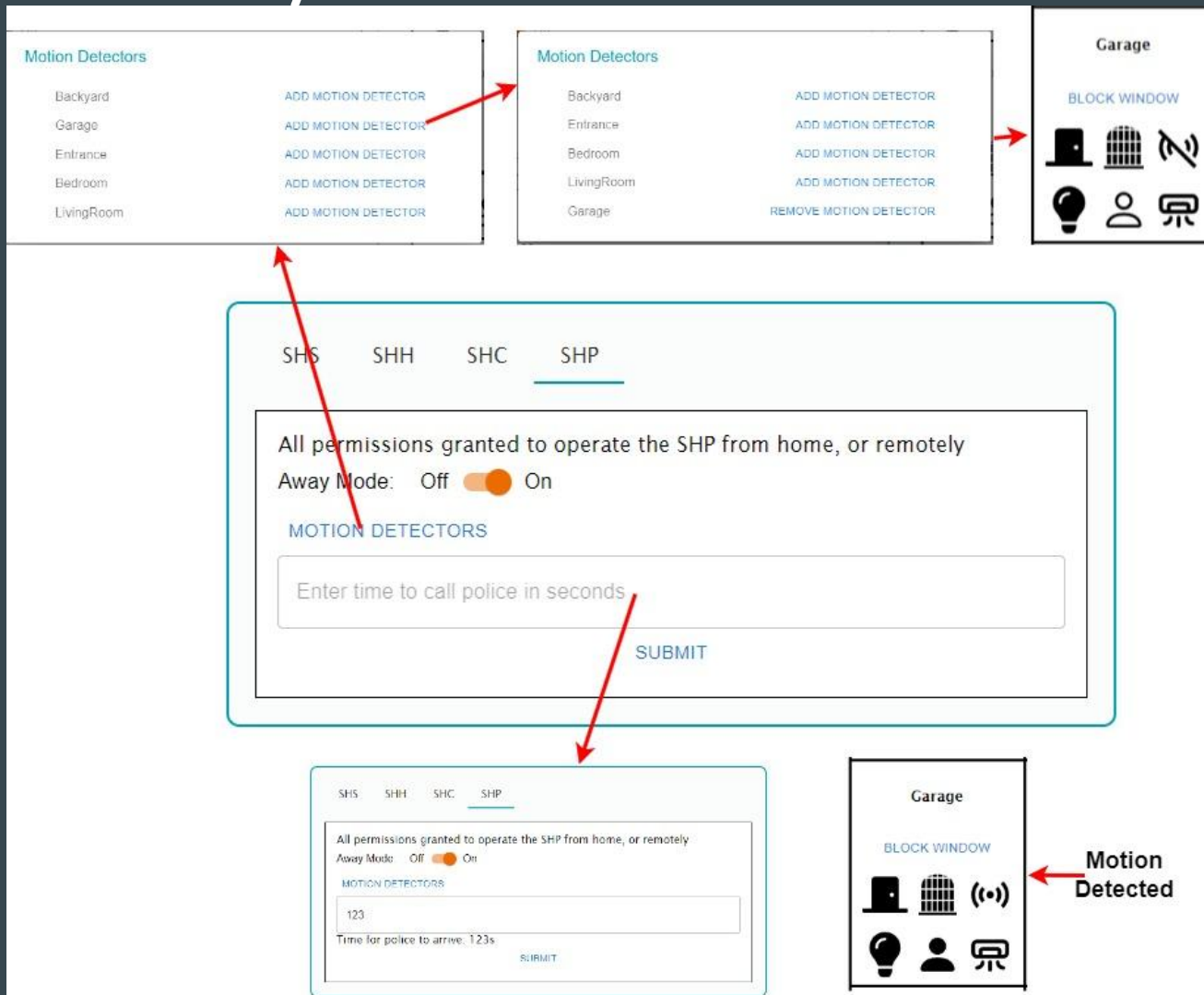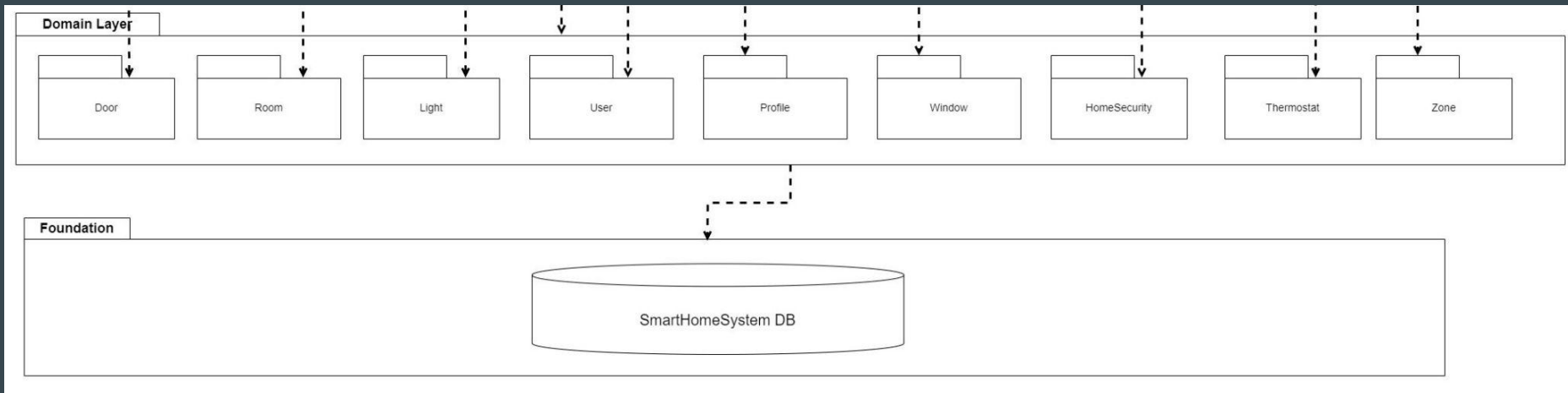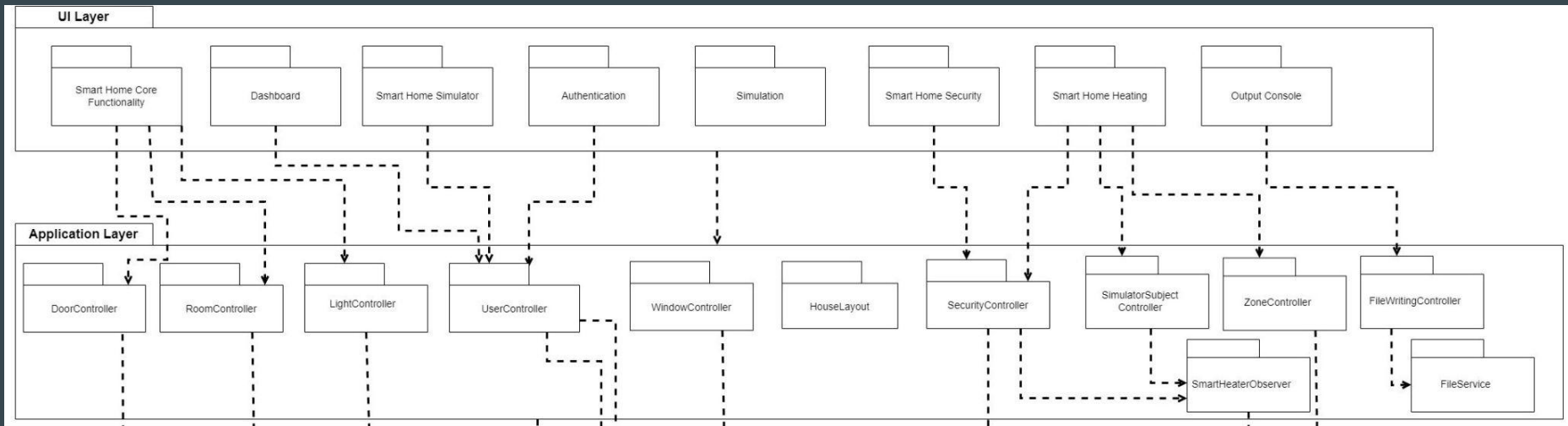
Architecture - Layered
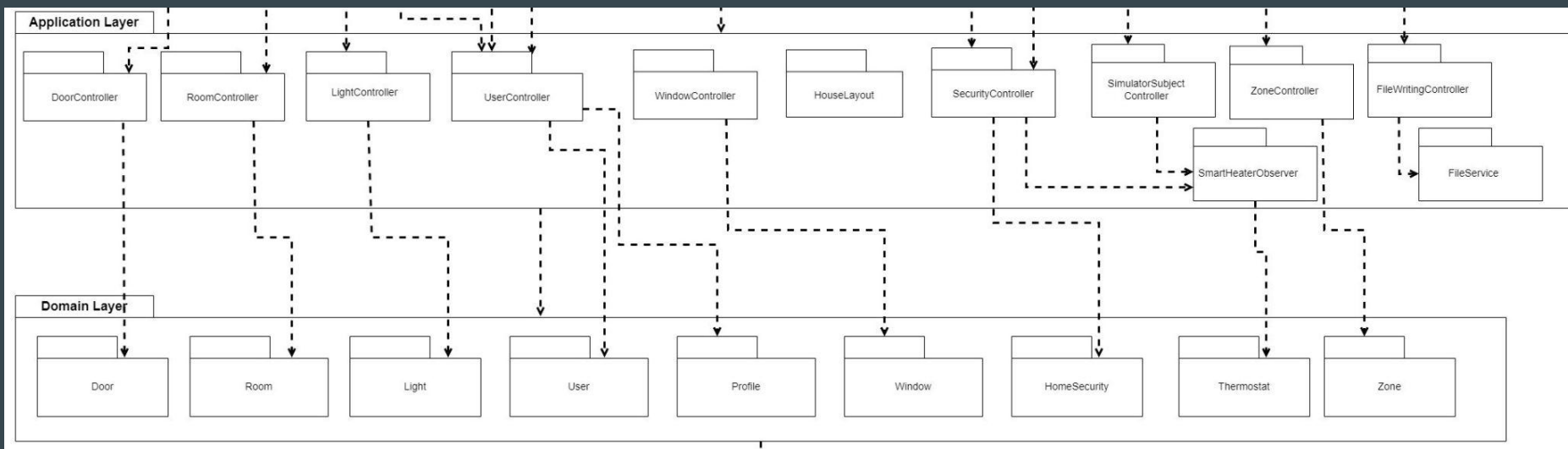
UI Layer

Application Layer

Domain and Foundation Layer

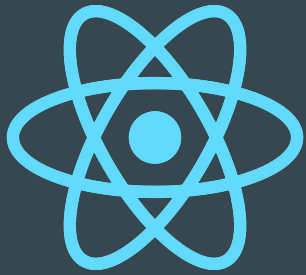# UI and Application Layer Relationships

Application and Domain Relationships

Product Overview:
Languages and Frameworks

Frontend: ReactJS Framework, Vite, TypeScript, CSS

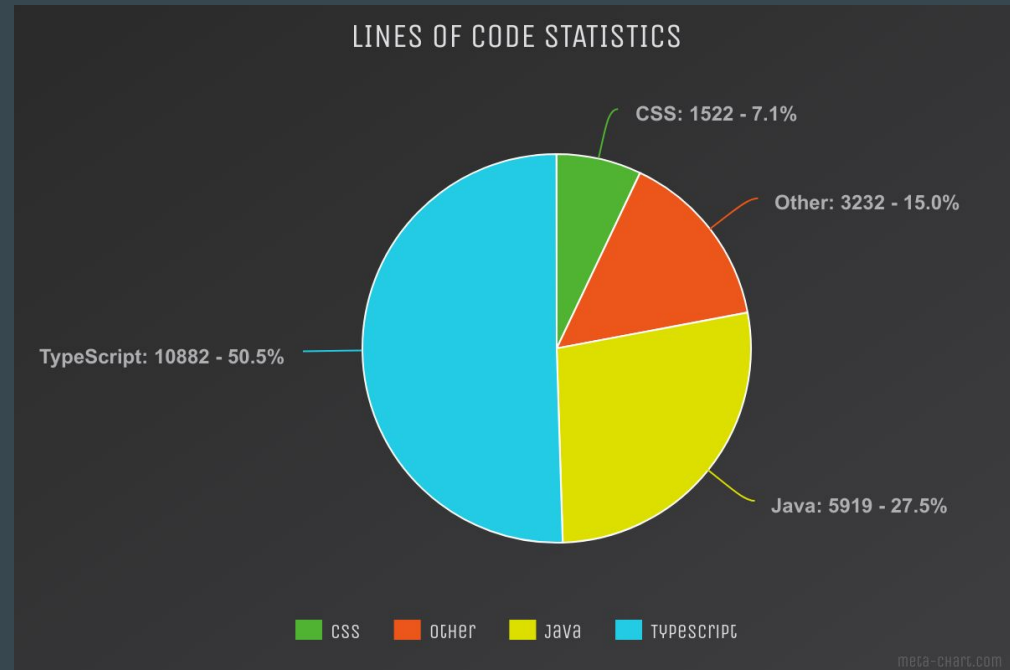Backend: Java, Spring Boot framework, PostgreSQL

Product Overview:
Lines Of Code

<u>Total Lines:</u> 25655

<u>Blanks:</u> 3567

<u>Comments:</u> 533

<u>Lines of Code:</u> 21555

LINES OF CODE STATISTICS

CSS: 1522 - 7.1%

Other: 3232 - 15.0%

TypeScript: 10882 - 50.5%

Java: 5919 - 27.5%

CSS   Other   Java   TypeScript

meta-chart.com

Demo

- SHP Module Functionality

Thank You