Frontend Technical Documentation

Overview

This document provides technical documentation for the frontend project of the Energy Consumption Management App.
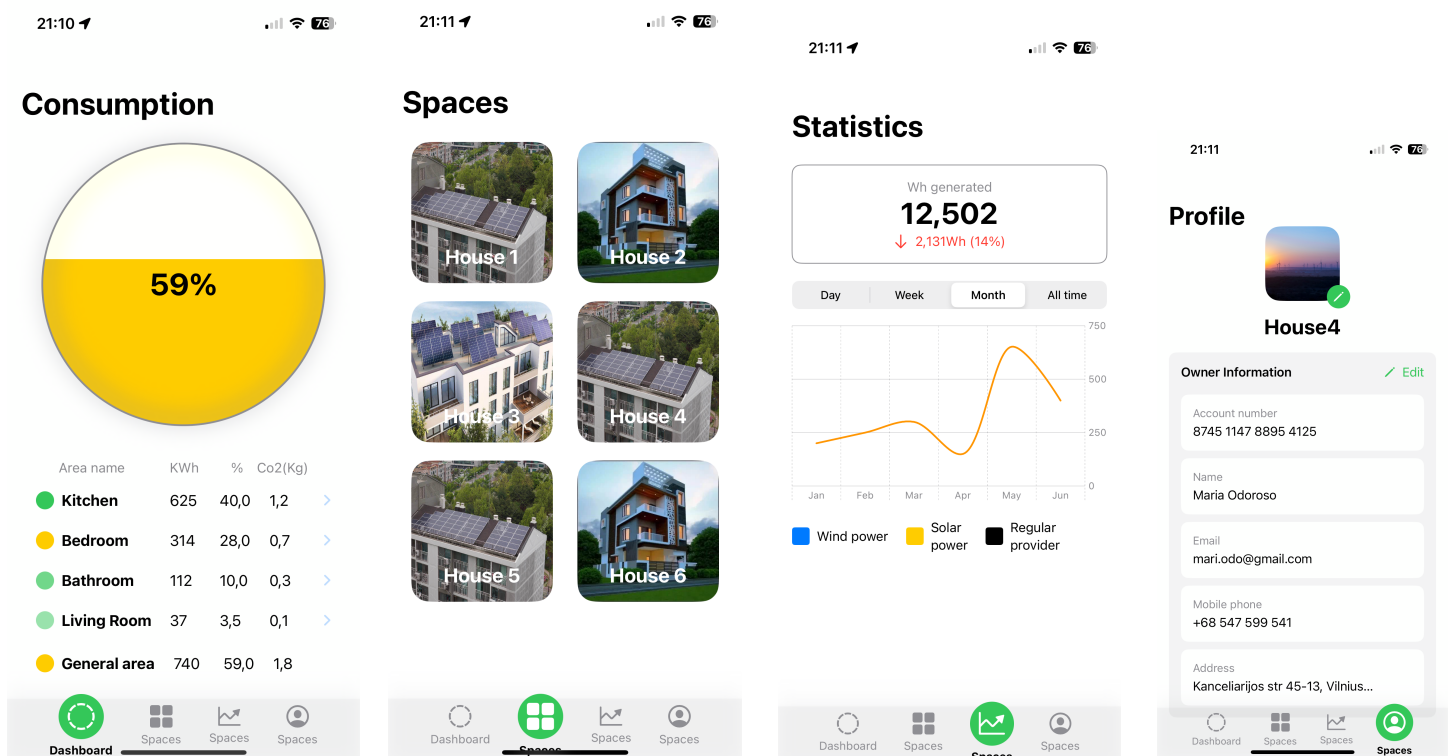
The app is designed to provide users with a comprehensive view of their energy consumption across different areas of their home,

track energy generation, and manage Energy Resource Communities (ERCs).

User Interface

The user interface of the app consists of several screens including:

1. Consumption Dashboard

2. Spaces Overview

3. Statistics

4. Profile Management

Screenshots

Consumption

59%

Area name	KWh	%	Co2(Kg)
🟢 **Kitchen**	625	40,0	1,2	›
🟡 **Bedroom**	314	28,0	0,7	›
🟢 **Bathroom**	112	10,0	0,3	›
🟢 **Living Room**	37	3,5	0,1	›
🟡 **General area**	740	59,0	1,8	

Spaces

House 1 · House 2 · House 3 · House 4 · House 5 · House 6

Statistics

Wh generated
12,502
↓ 2,131Wh (14%)

Day | Week | Month | All time

Jan Feb Mar Apr May Jun

🟦 Wind power   🟨 Solar power   ⬛ Regular provider

Profile

House4

Owner Information	✏ Edit

Account number
8745 1147 8895 4125

Name
Maria Odoroso

Email
mari.odo@gmail.com

Mobile phone
+68 547 599 541

Address
Kanceliarijos str 45-13, Vilnius...

Components

The app is built using SwiftUI and consists of several key components:

1. ChartView: Displays energy consumption and generation data using charts.

2. ConsumptionList: Lists energy consumption details for different areas.

3. ProfileView: Manages user profile information.

4. Custom Shapes: Custom components like Bezier curves for enhanced data visualization.

Code Structure

The codebase is organized into the following main files:

1. ERCManagerApp.swift: Entry point of the app.

2. ContentView.swift: Main view containing the tab navigation.

3. Chart.swift: Contains the ChartView component for data visualization.

4. Coordinator.swift: Manages app navigation and state.

5. Profile.swift: Manages user profile information and UI.

6. PresumerMain.swift: View for prosumer-specific functionalities.

7. ConsumerMain.swift: View for consumer-specific functionalities.

8. ConsumptionList.swift: Displays detailed consumption data for various areas.

9. ConsumptionCircle.swift: Custom circular progress view for consumption data.

10. Models.swift: Defines data models used across the app.