TemperatureApp

Mobile applications & interaction design in vehicle

Guided by

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Agenda

01 Use Case

02 System Architecture

03 Working

04 Evaluation

Description

The **Temperature App** provides real-time monitoring of in car cabin temperature and humidity levels. Based on it the user can control the climate control system using an Android App.

Why it is needed?

- Protecting Children and Pets from Heatstroke
- Enhanced In-Car Comfort
- Preventing Sudden Temperature Changes

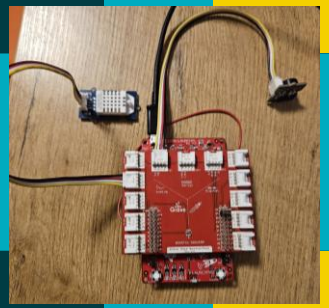
System Architecture

Mobile App (Android)

- Displays temp, humidity, HVAC status
- Allows user to control climate (fan, AC)
- Communicates via Wi-Fi to Backend API

Backend Server

- Manages API requests for temp/humidity
- Sends control signals to CC3200
- Provides Weather information using location



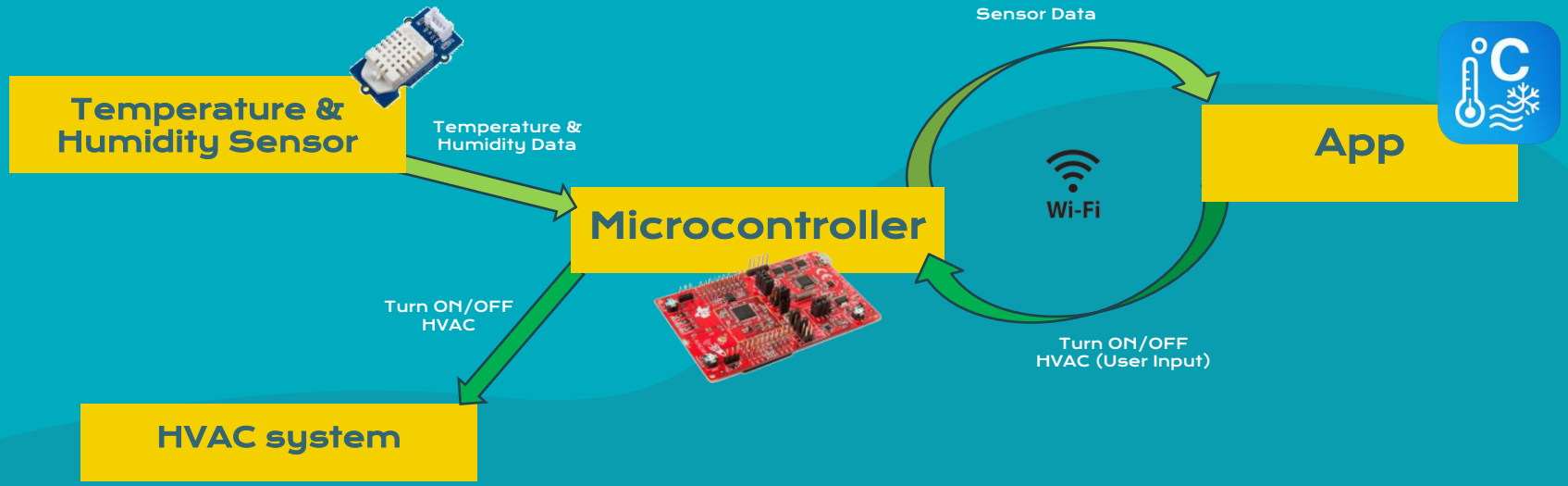
CC3200 LaunchXL

- Collects sensor data (temperature, humidity)
- Sends data to Backend API
- Receives control signals

Climate Control System

- HVAC System (Fan, AC, Heating)
- Adjusts based on the control signals from CC3200

Working

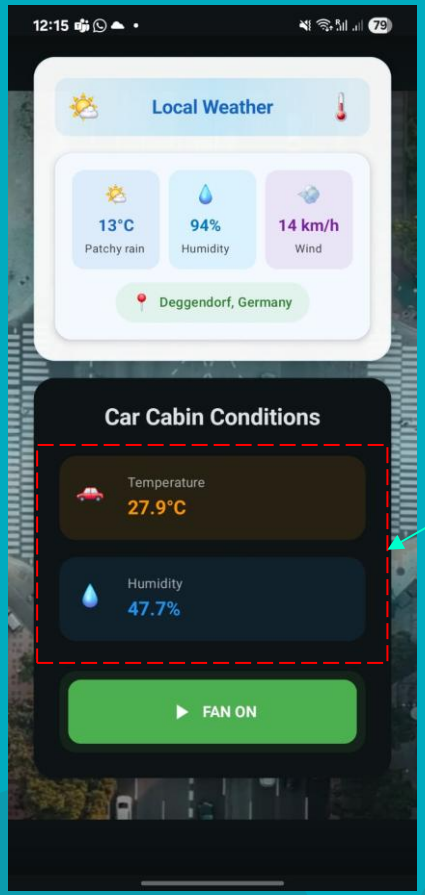

Temperature & Humidity Sensor
Temperature & Humidity Data
Microcontroller
Turn ON/OFF HVAC
HVAC system
Sensor Data
Wi-Fi
App
Turn ON/OFF HVAC (User Input)

Evaluation

Targeted Age Group: 30 – 45

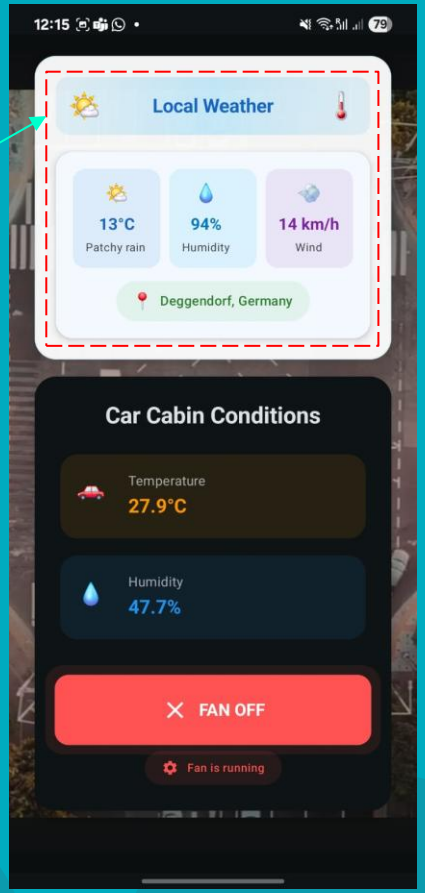
- **Mid-career professionals** juggling work, family, and other commitments.
- More likely to be financially stable and in a position to own a vehicle with advanced features.

Evaluation



Sensor Data

Weather API
Based on location



THANK YOU