



# EVA

## Elderly Virtual Assistant



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## Overview

- Problem: Millions of Americans take five or more medications a day and struggle with compliance. This problem is growing worse as America's population ages.
- EVA is a device that offers an effective and realistic solution to this problem. EVA can help patients manage their medications, improve compliance, and report results directly to physicians and loved ones.
- Additionally, EVA can track other important metrics such as Isolation and Cognitive Decline.

## Achievements

- Working software that reminds user and generates reports for physicians.
- Able to scan pill bottles and store information in a database.
- Able to answer questions from users.

## Challenges

- Text recognition on curved surfaces.
- UI needs to be Elderly Friendly.
- HIPAA limitations for reporting.

## Technologies

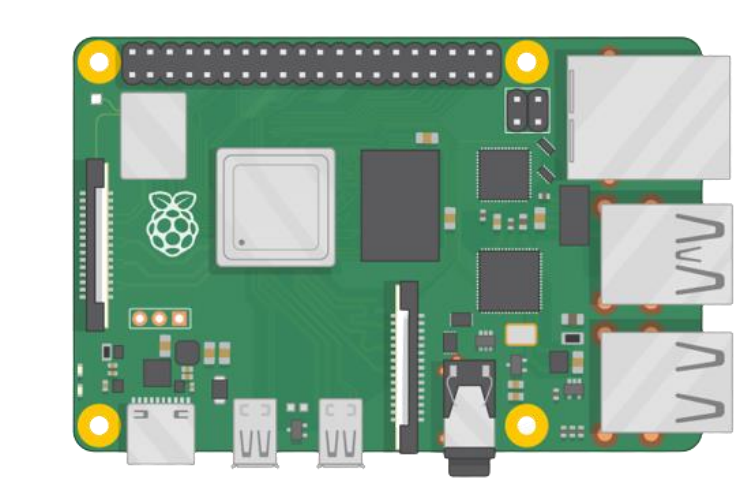
Python

PostgreSQL

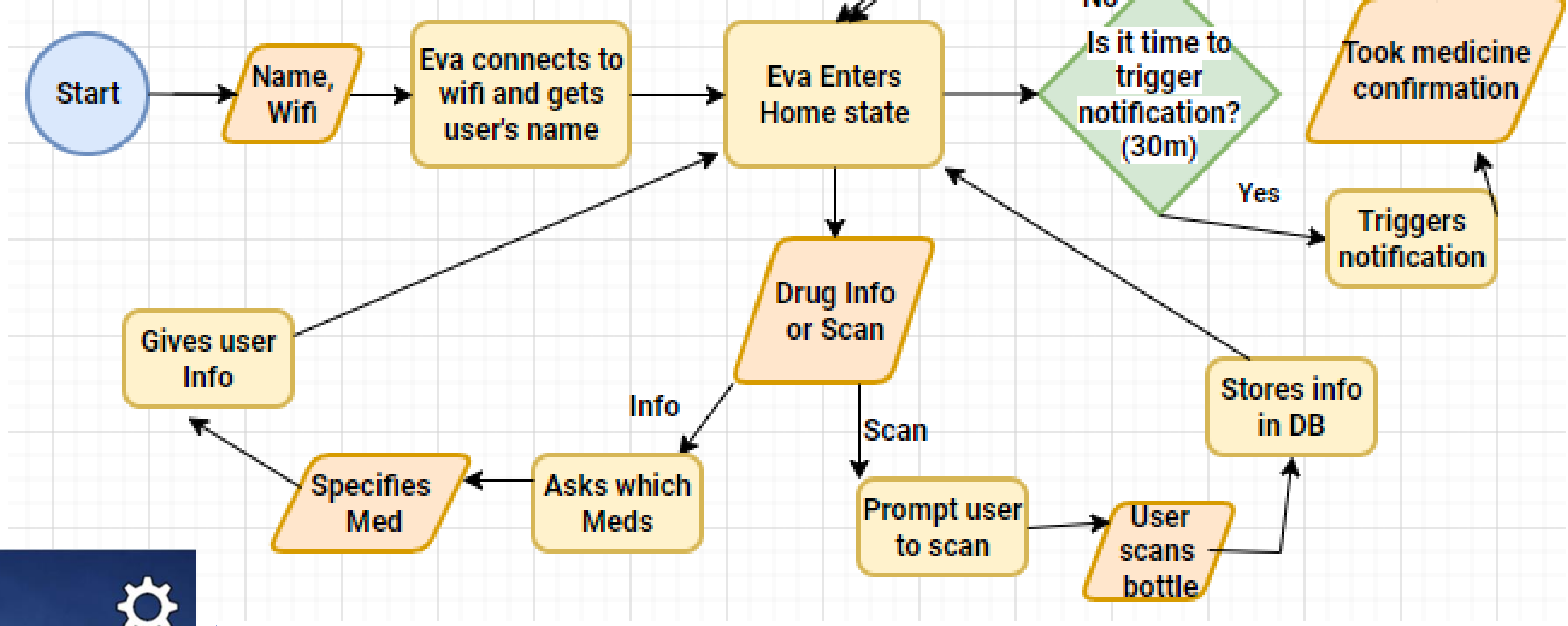
Google Cloud Speech API

OpenCV

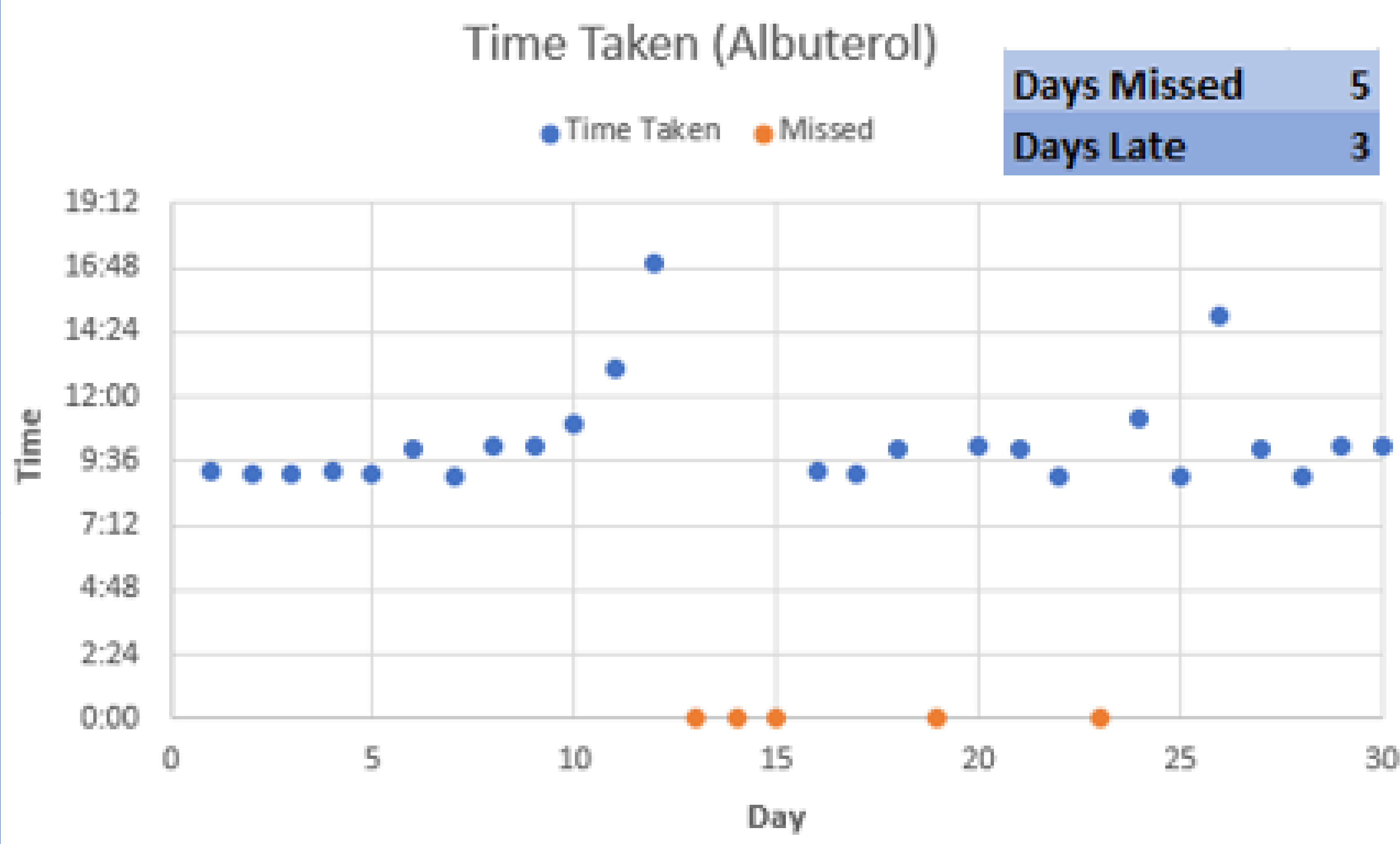
Hardware:  
Raspberry Pi 4 Model B,  
10 inch touchscreen display,  
5mp Camera



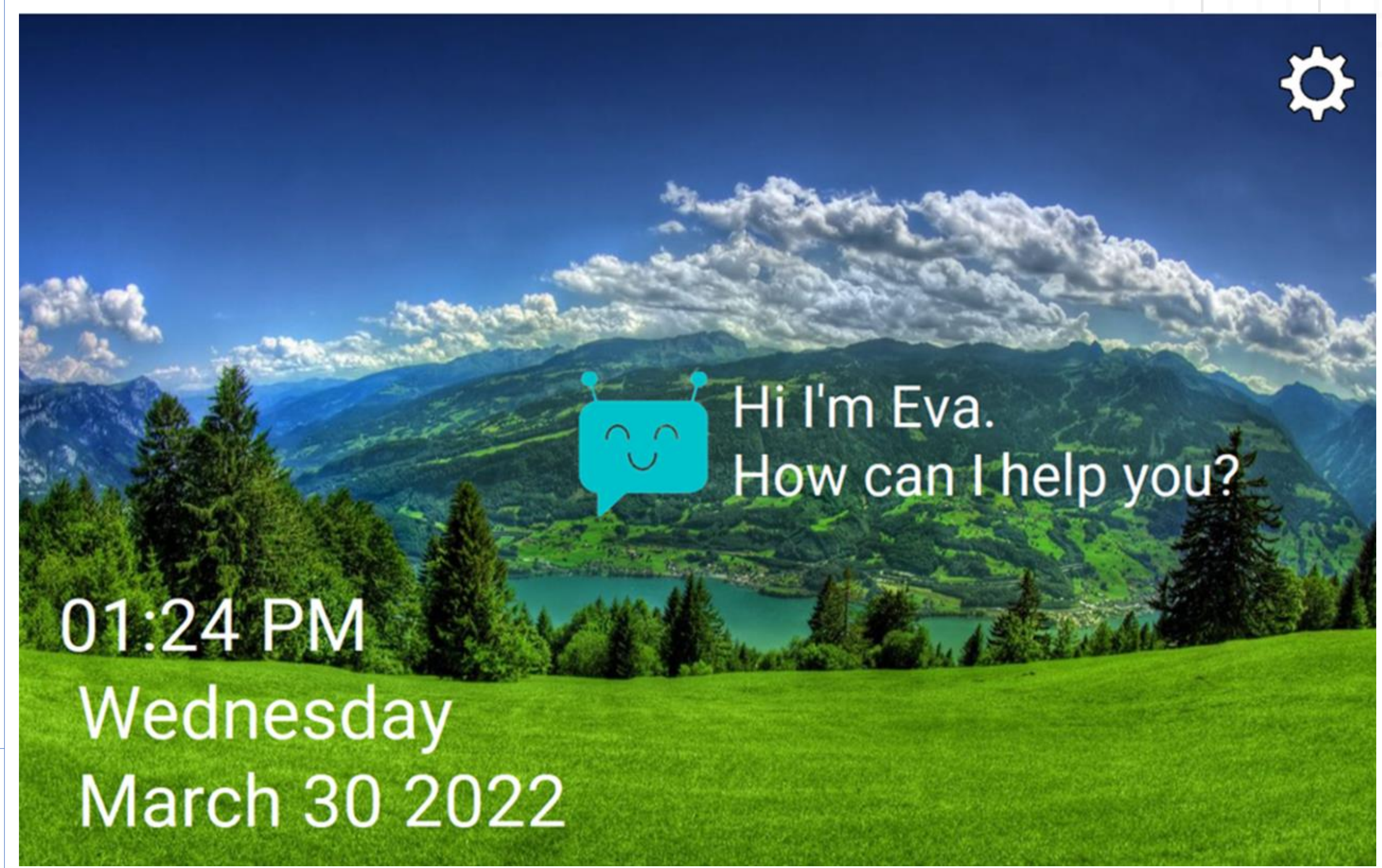
## User Flow



## Example Report



## Home Screen



## Future Plans

- Develop EVA phone app.
- Implement more report features.
- Move databases to the cloud.
- Mechanical pill distributor.
- Wearable reminder tool.