



iOS Digital Memory Notebook: Development and User Feedback

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Introduction

- Memory Notebooks have been shown to help people with mild cognitive impairment to remember and complete tasks
- Goal: To develop a user-friendly digital memory notebook app for iOS that:
 - Helps people record, schedule, and complete tasks
 - Improves upon the original Android digital memory notebook app
 - Is desirable and accessible for individuals with mild cognitive impairment
 - Is connected to a smart home environment but can also be used as a standalone too
- We created the digital memory notebook through an iterative design process with older adult participants

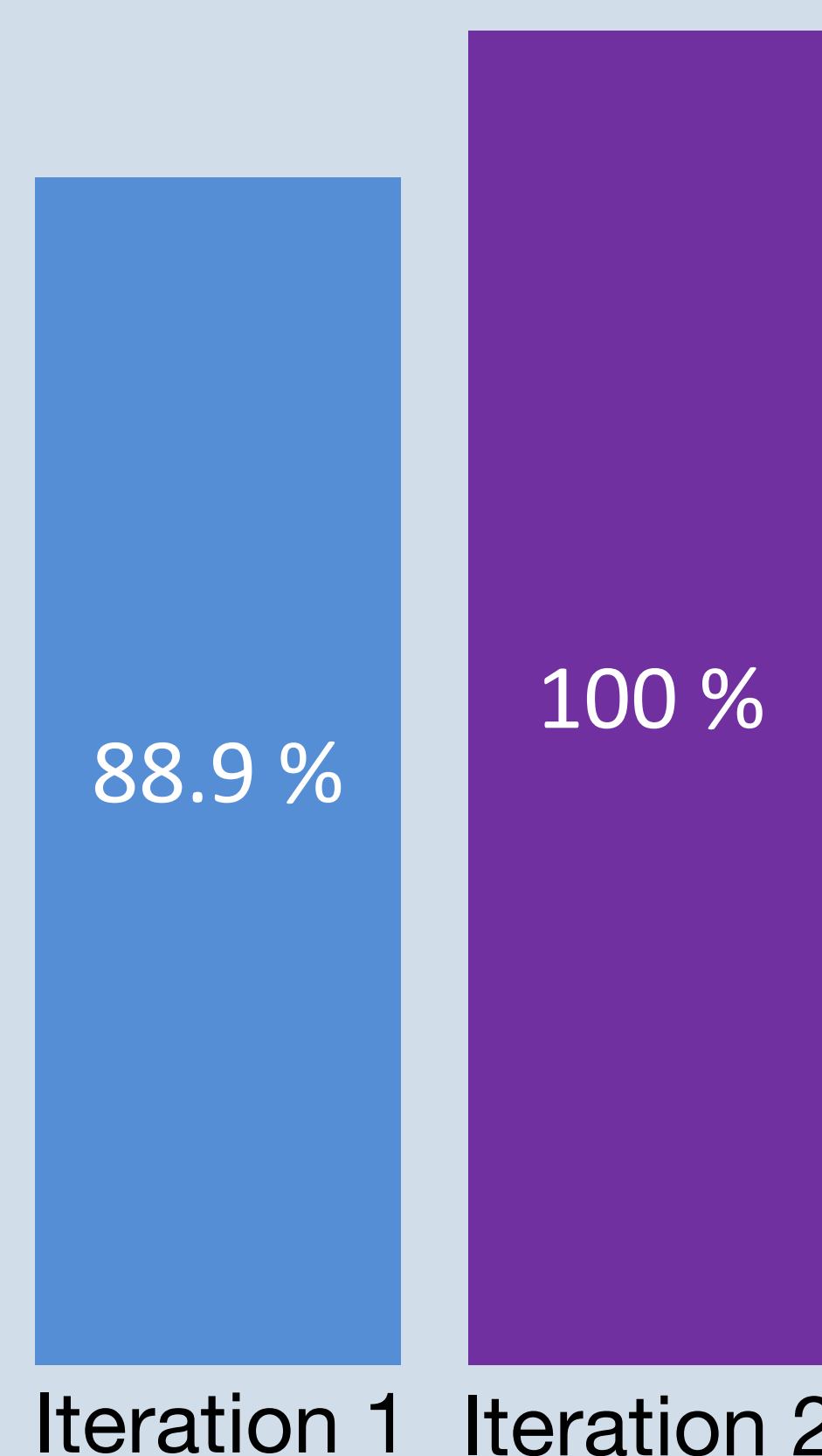
Methods

- Usability testing with 9 older adults
 - With mild cognitive impairment and aged 46-94 years old.
 - Participants each completed 6 scenarios for iteration 1 and 9 scenarios for iteration 2 after a brief tutorial of the app
 - Criteria:
 - Multiple technology usability and comfort questionnaires, psychology after-scenario and post-study questionnaires (results not shown)
 - Open-ended prompts
 - Would they use it
- Changes were made and features were added to the app between iterations according to the participants' feedback.

Results

- From iteration 1 to iteration 2
 - **App adoption rate rose 11.1%**
 - From 88.9% of participants stating they would use the app to **100% of participants stating they would use the app** after minor improvements such as a separate medication list, a medical history page, and color scheme changes are implemented

App Adoption Rate



User Interface

- Text legibility considering font and text size
- Labeled text fields and buttons for data input
- Navigational prompts and reminders for scheduled tasks
- Intuitive date navigation and time selection interface
- Subtle color scheme with a focus on text legibility

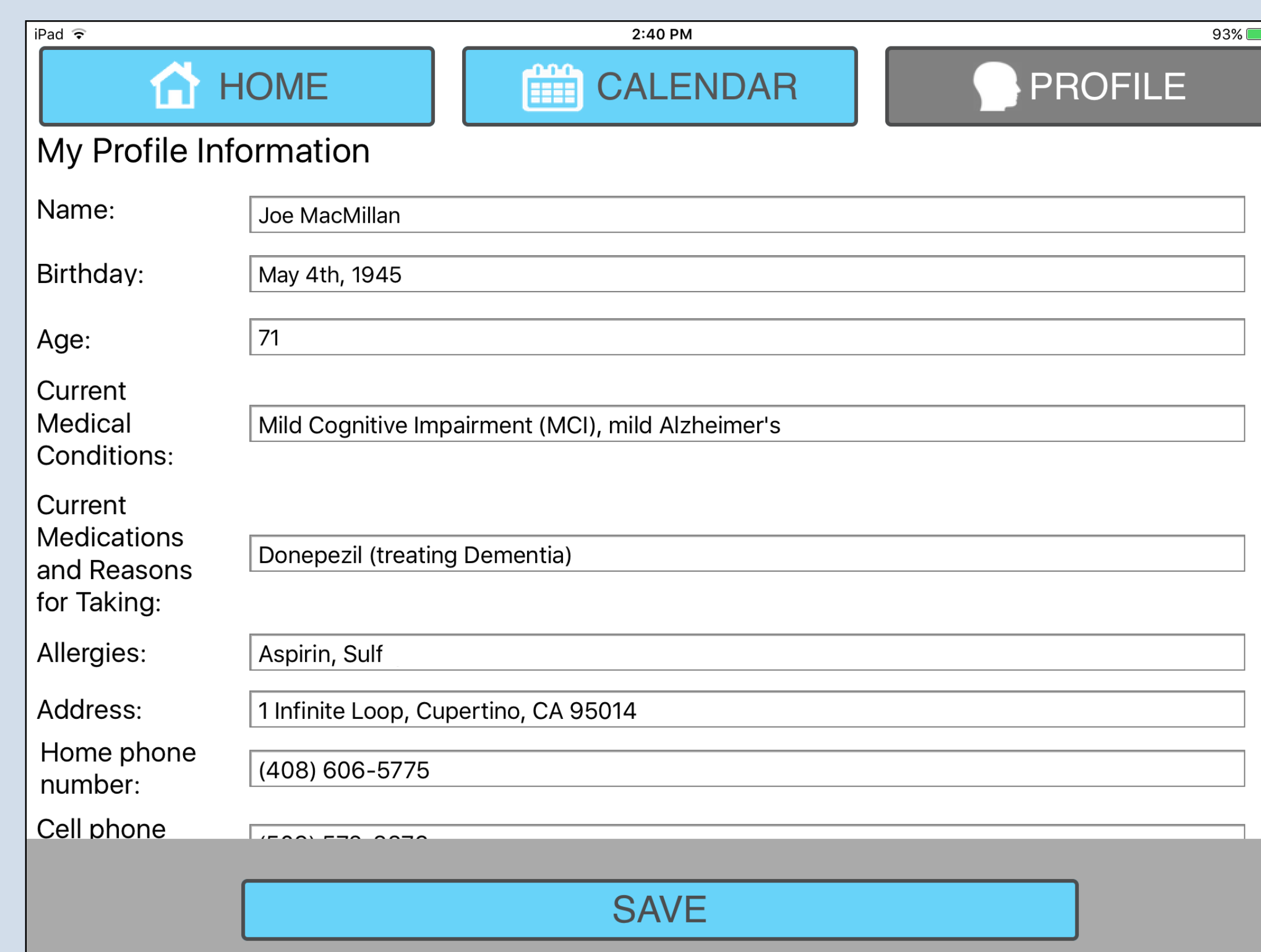
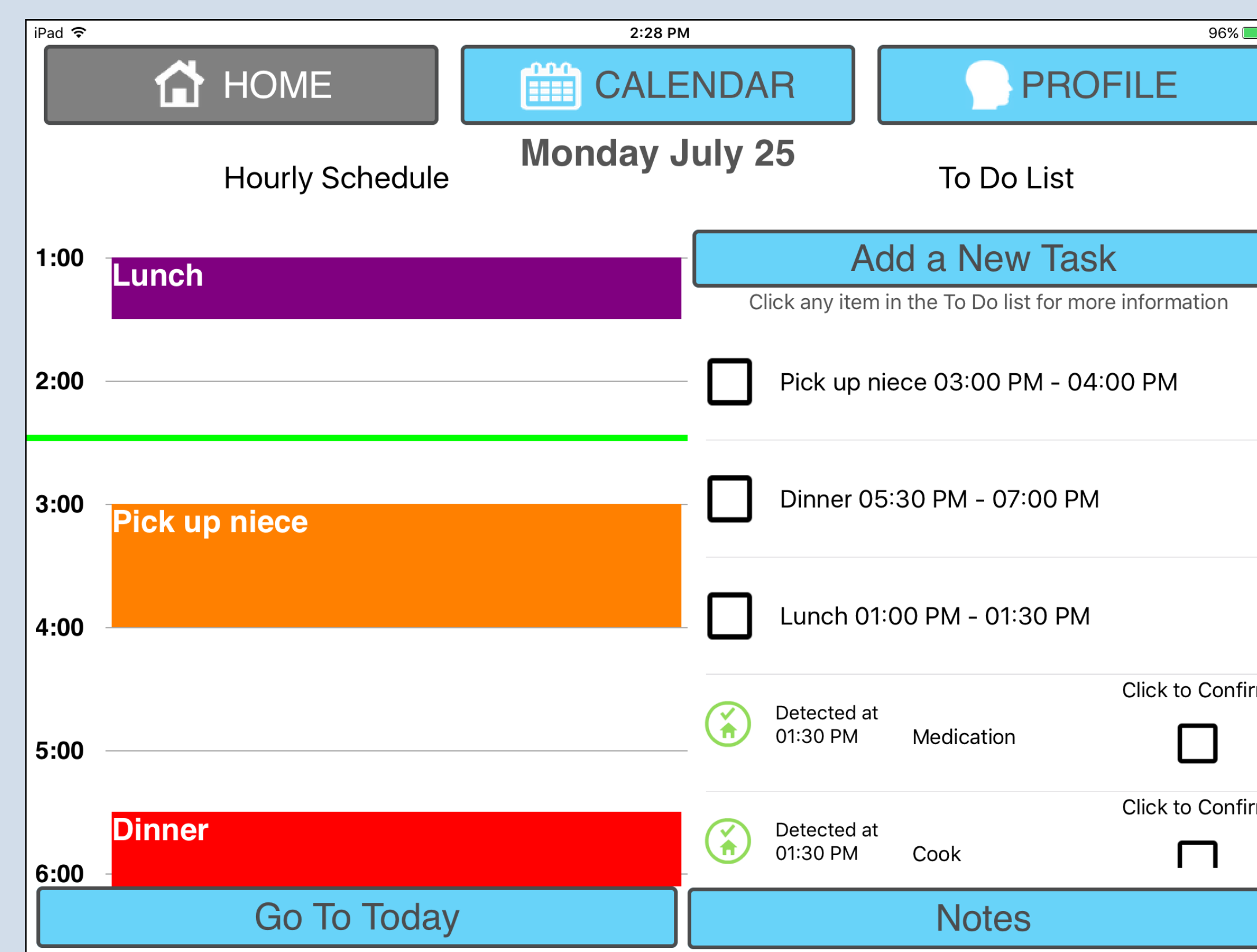
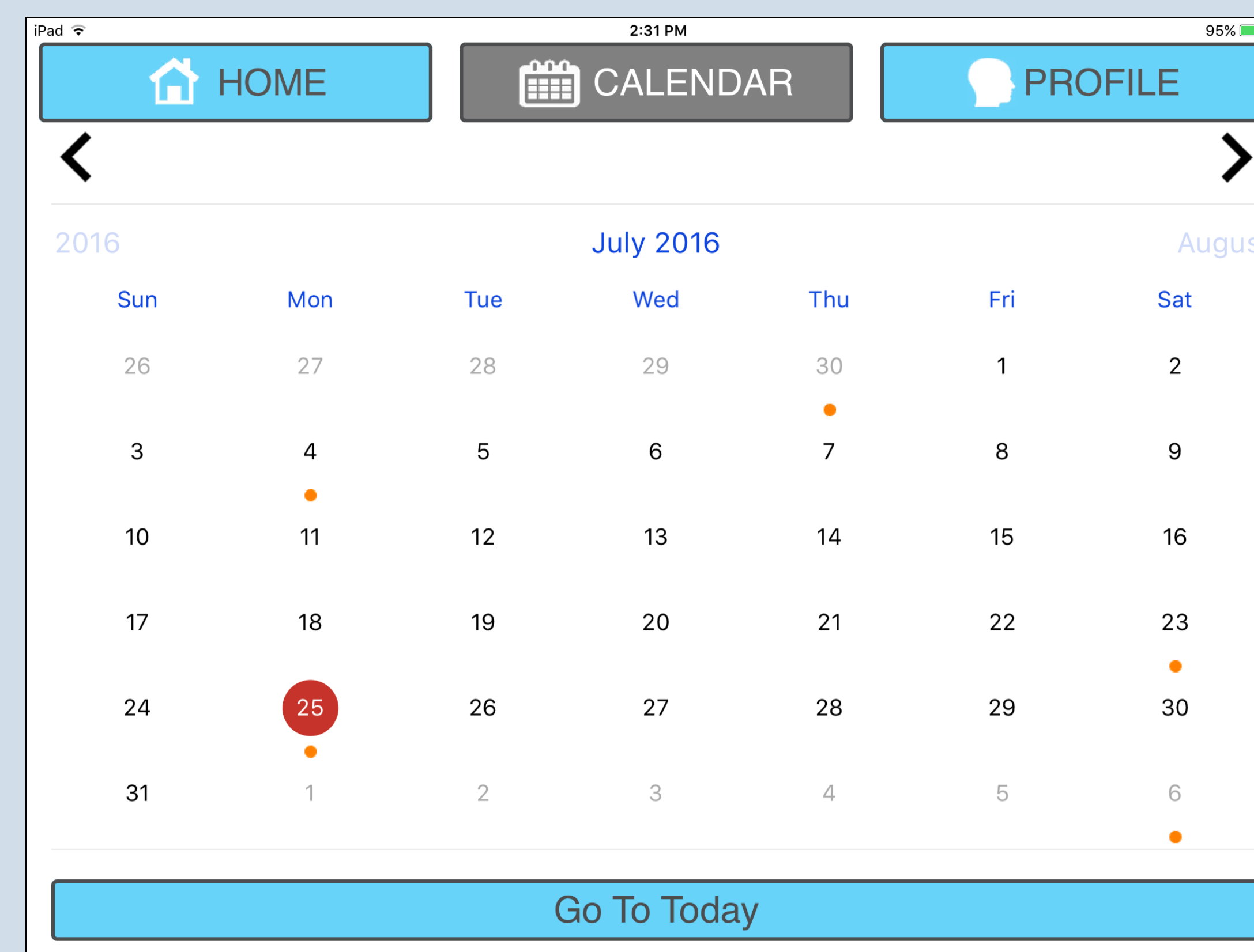


Figure 1. Calendar, Home Page, and Profile views

User Interface

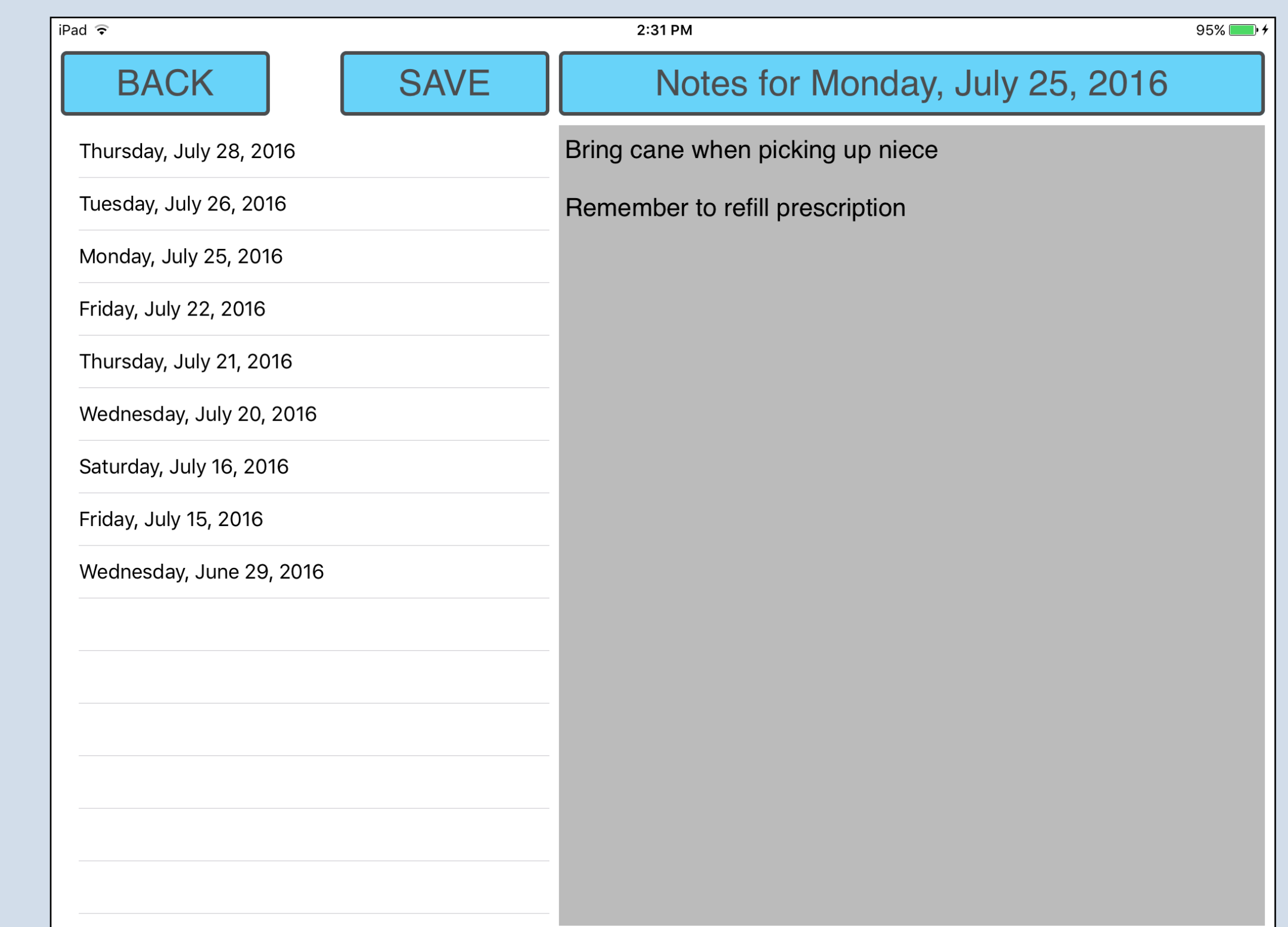
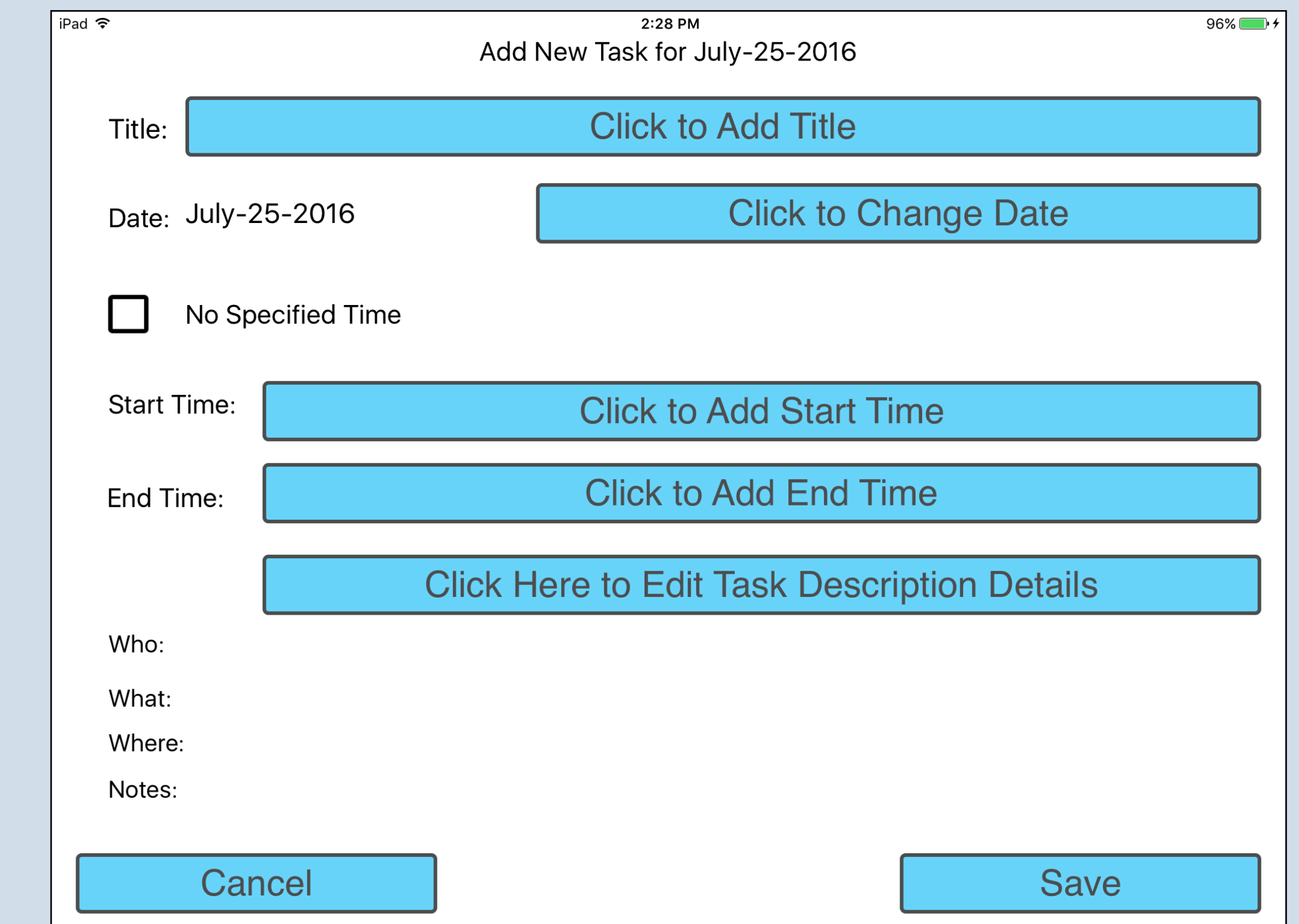


Figure 2. Add New Task and Notes views

Conclusions & Next Steps

- The percentage of those who expressed they would use such an app provides a promising future and shows people benefit from the digital memory notebook app
- Participants have given us specific feedback about what they wanted to see in the next iteration before they were ready to adopt such an app.
 - Additional features they think would be useful
 - Look and feel of app
 - More information and guidance for using the app
- Release in the iOS App Store so it can be readily available to those who may benefit from it

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