Jarvis: A Virtual Assistant That Won't Sell Your Data

User Documentation

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Part I: User Interface - iOS Version:

Introduction

The Jarvis mobile app provides a comprehensive platform for users to view and manage their home devices readily. Each user will be able to:

- Manage the rooms they are using
- Manage and view the devices in each of room
- Add, delete, and revise devices
- Control the status of the devices virtually

Compatibility

- The mobile app is compatible with iOS versions **16 and higher**

Help

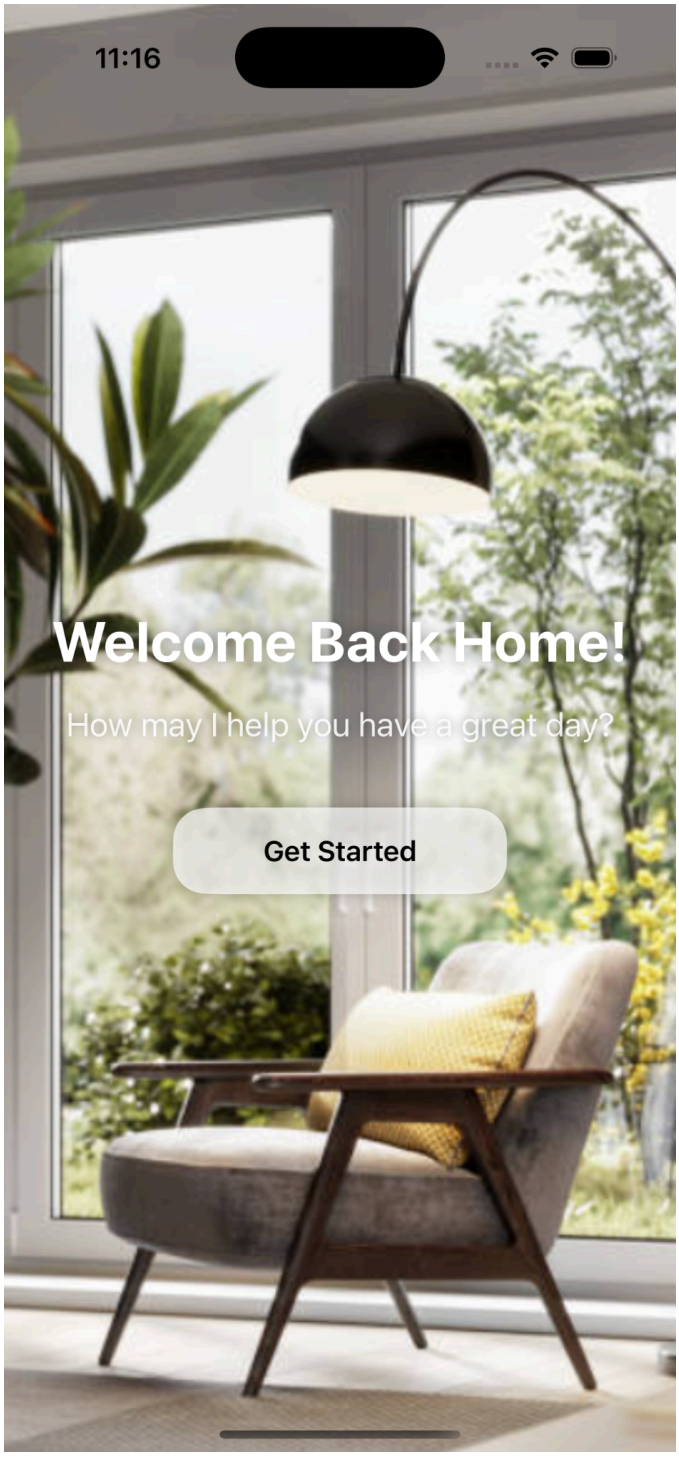
- If users have any questions or concerns regarding the usage of the mobile app of Jarvis, they could ask for help for Jarvis team through email
    - yshi333@emory.edu

Interfaces

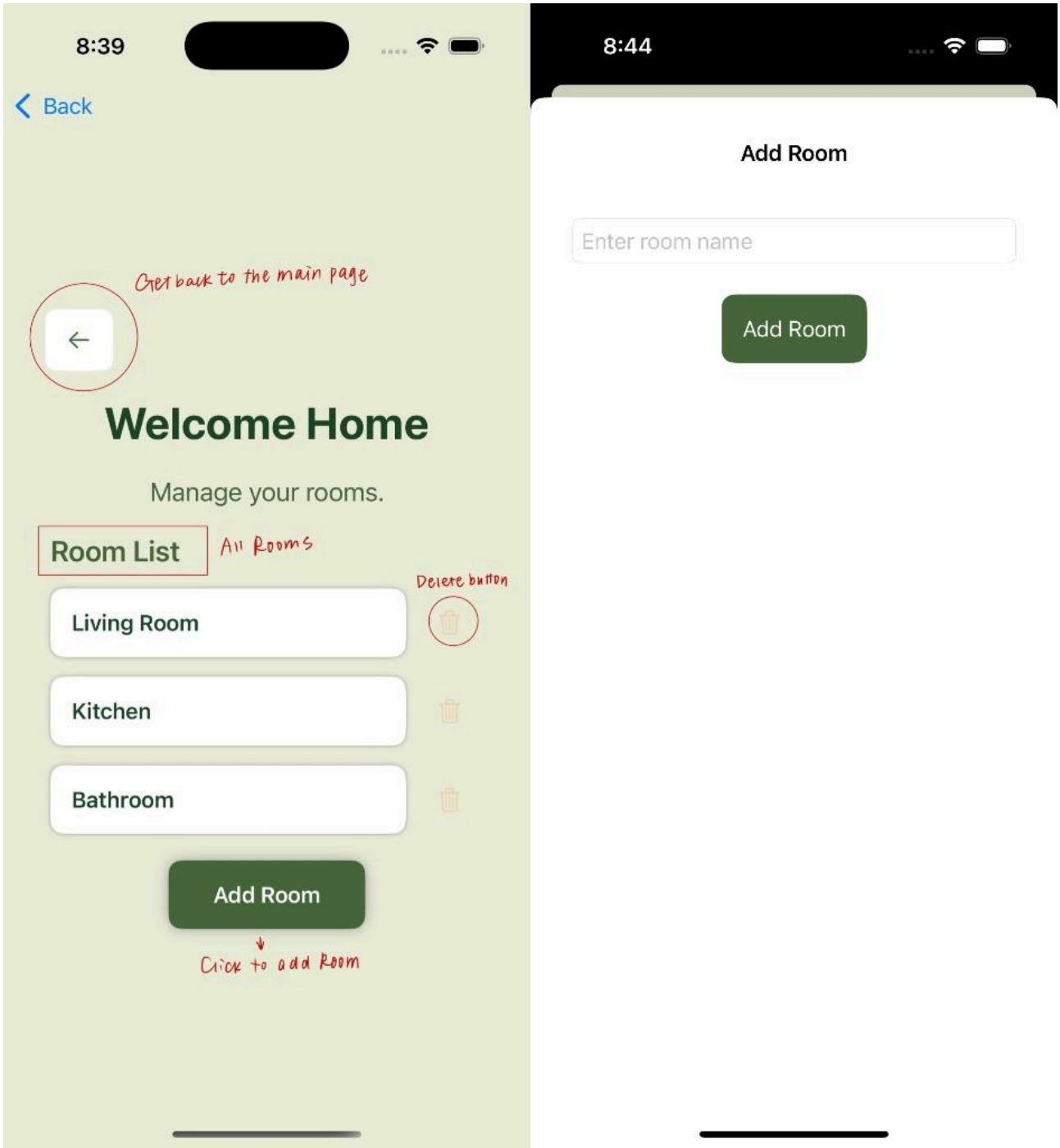
With a mobile device with iOS versions 16 and higher, the users would be able to download and install Jarvis on their phone.

Welcome Home Page

After launching the Jarvis app by clicking on click, the user would be directed to the Welcome Home page, they may click **Get Started** to start viewing and managing their rooms and devices.

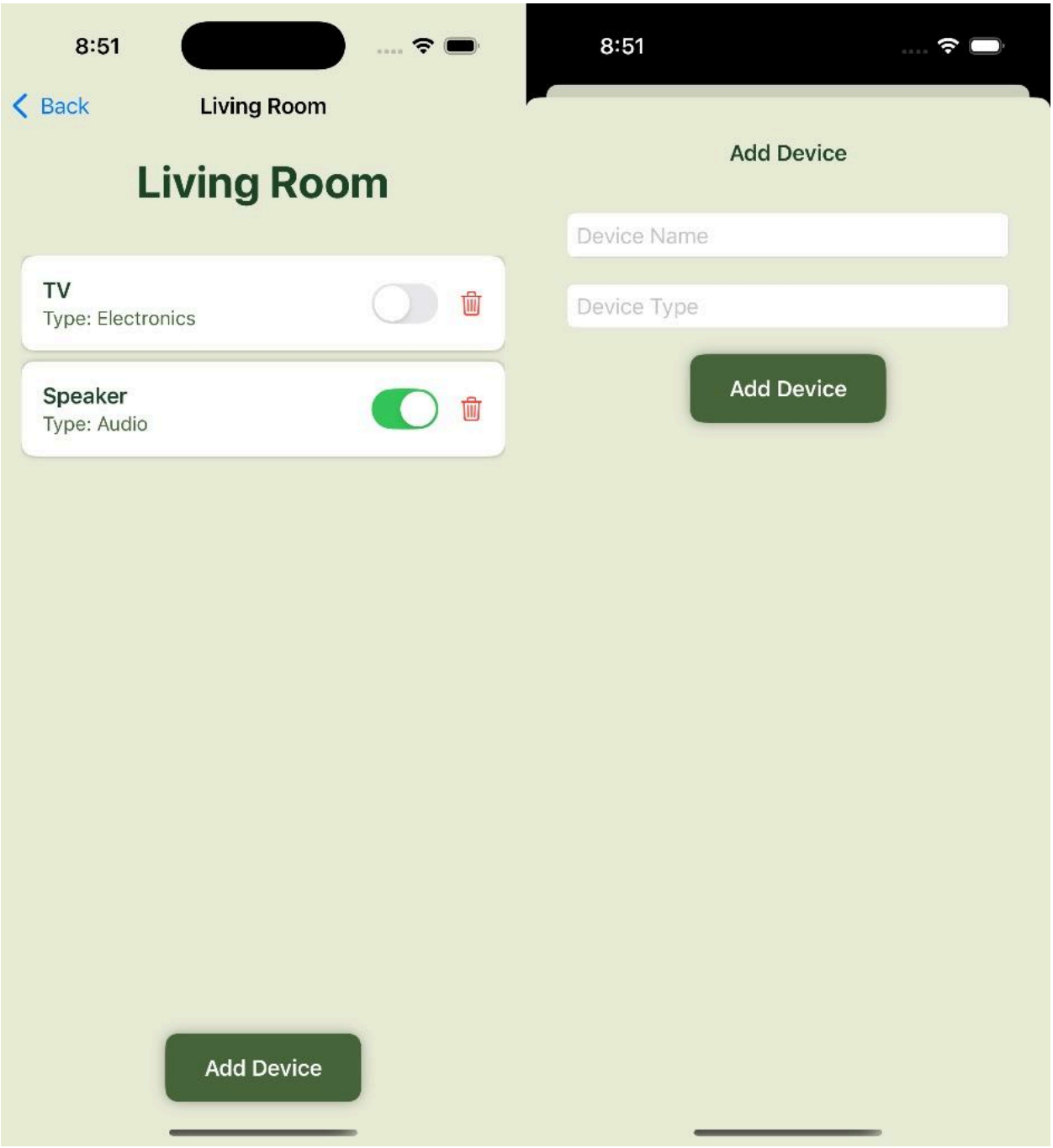


Room List Page



- In the Room List View, the user would have access to all the rooms in their home. From the page, users would be able to:
    - All Rooms by clicking **Add Room** button and enter the room name and click **Add Room** to save it
    - **Delete** the rooms they have by clicking the delete button
    - **Access to specific rooms** to check devices by simply click on the room name
    - **Go back** to the Welcome Home page

Device List Page



- In the Device List View, the user would be able to manage and view the status of each of the devices in specific rooms. From this view, the users would be able to:
    - **View** the status of specific devices (e.g. TV, speaker); checking whether their status is on or off
    - **Delete** specific devices by clicking the delete button

- Add specific devices by clicking **Add Device**, putting the device name and type in, and clicking Add Device to save the device
- Sliding the toggle to **control the status** of the device; green is on and white is off
- Get back to the Room List View

Part 2: User Interface - MacOS Version:

Introduction

The Jarvis MacOS app offers a comprehensive platform for managing home devices with ease. Users can:

- Access rooms and view the devices within them.
- Add, delete, and update rooms and devices.
- Control device statuses (e.g., switching devices “on” and “off”).

Compatibility

- The app is compatible with MacOS versions **14.6 and higher**.

Interface

MainScreen (Figure 2.1 & 2.2):

- The main screen displays a list of rooms. When a room is selected, the devices within that room are displayed.
- **Expanding the Room List**: If the room list is not visible, click the **expand button** (see **Figure 2.1**) to show the sidebar containing the room list.

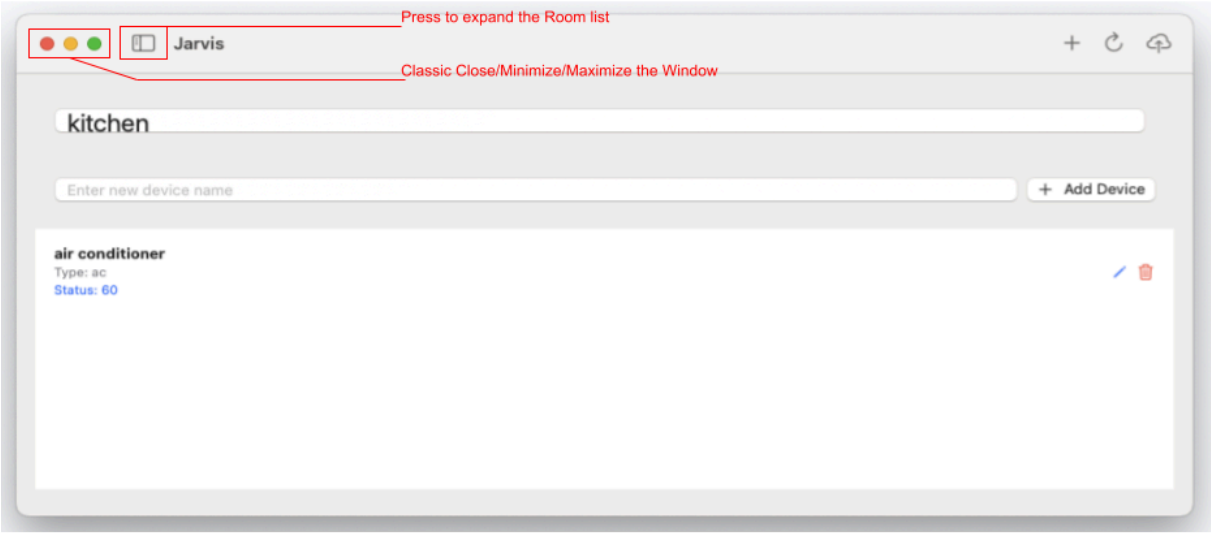


Figure 2.1

- **Features on the Main Screen with Expanded Room List (Figure 2.2):**
    1. **Room List**:
        - Located on the left sidebar, with **Edit** and **Delete** buttons beside each room.
    2. **Add Room**:
        - Found at the **top right corner**, first button from the left.
        - Clicking this button will add a new room to the list with **0 devices inside**.
    3. **Refresh from Database**:
        - The second button from the left in the **top right corner**.
        - Clicking this will fetch the latest information from the database and display it in the app.
    4. **Upload to Database**:
        - The last button on the **top right corner**.
        - Clicking this will upload the current app data to the database.
    5. **Add Device**:
        - Located on the **Room Detail page**, in the middle-right section.
        - Enter the new device name in the text box provided, then click the **Add Device button**.

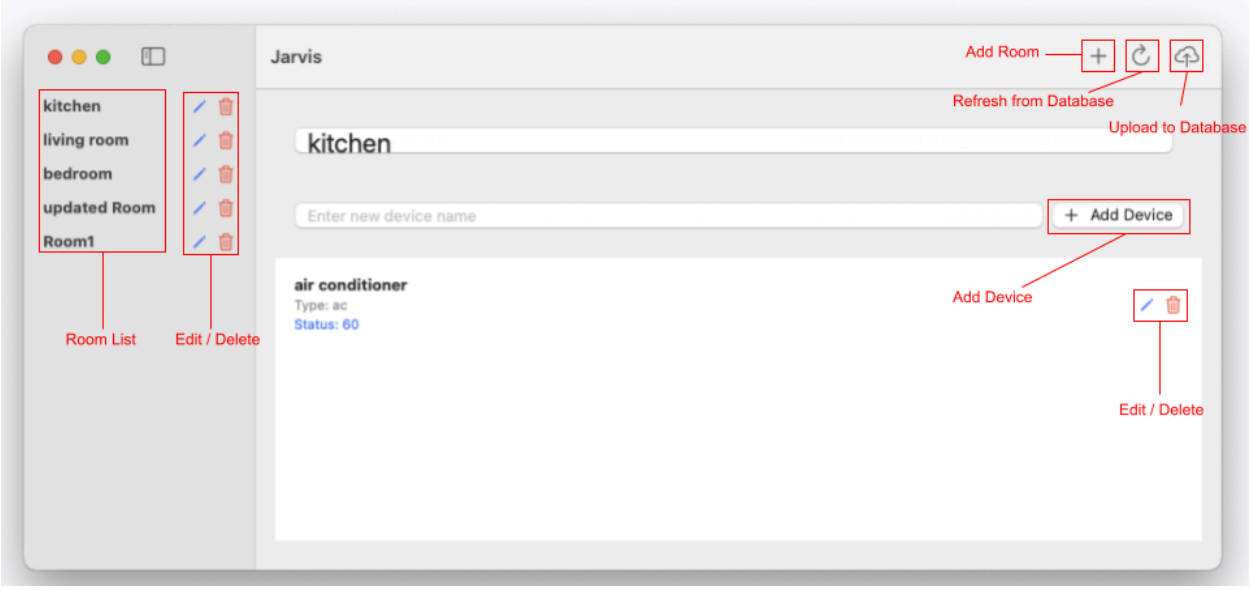


Figure 2.2

Device List Details (Figure 2.3 & 2.4):

- The device list shows:
    - **Device Name**
    - **Device Type**
    - **Device Status**

        - Device status varies depending on the device (e.g., “on/off” for lights, “70 degrees” for an AC unit).
- **Compatibility Note**:
    - This Alpha version uses **Pure String Detection** to interpret device status.

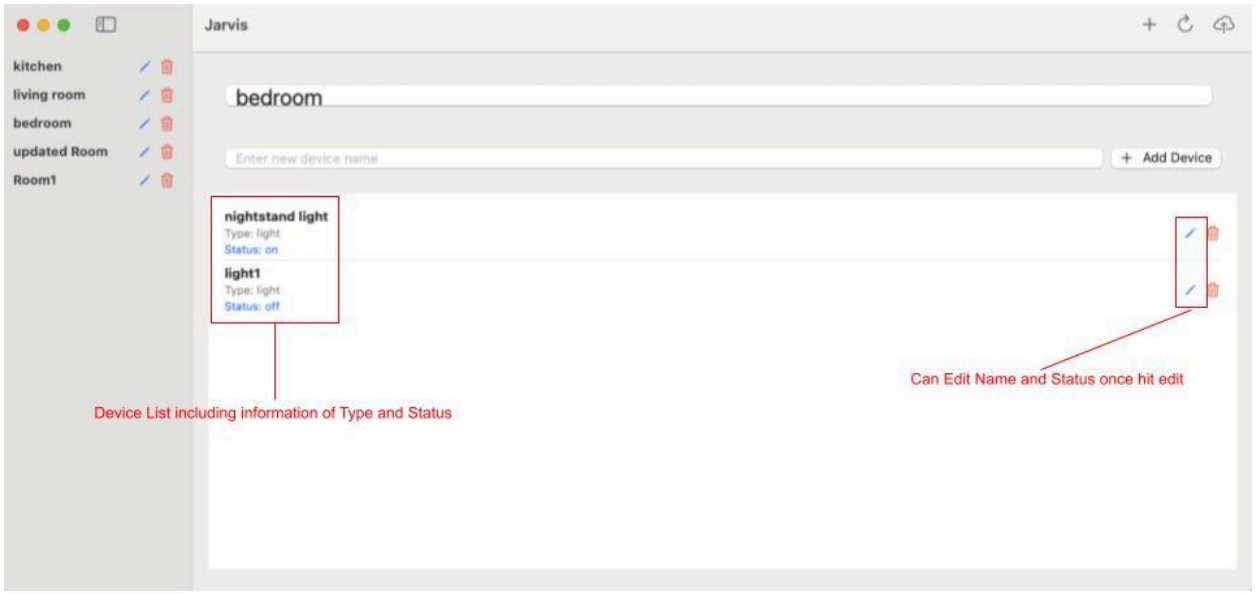


Figure 2.3

- **Editing Devices (Figure 2.4):**
    1. Click the **Edit button** on the right side of any listed device to modify its name or status.
    2. After making changes, click the **green checkmark** on the right side of the device to save and commit the updates.

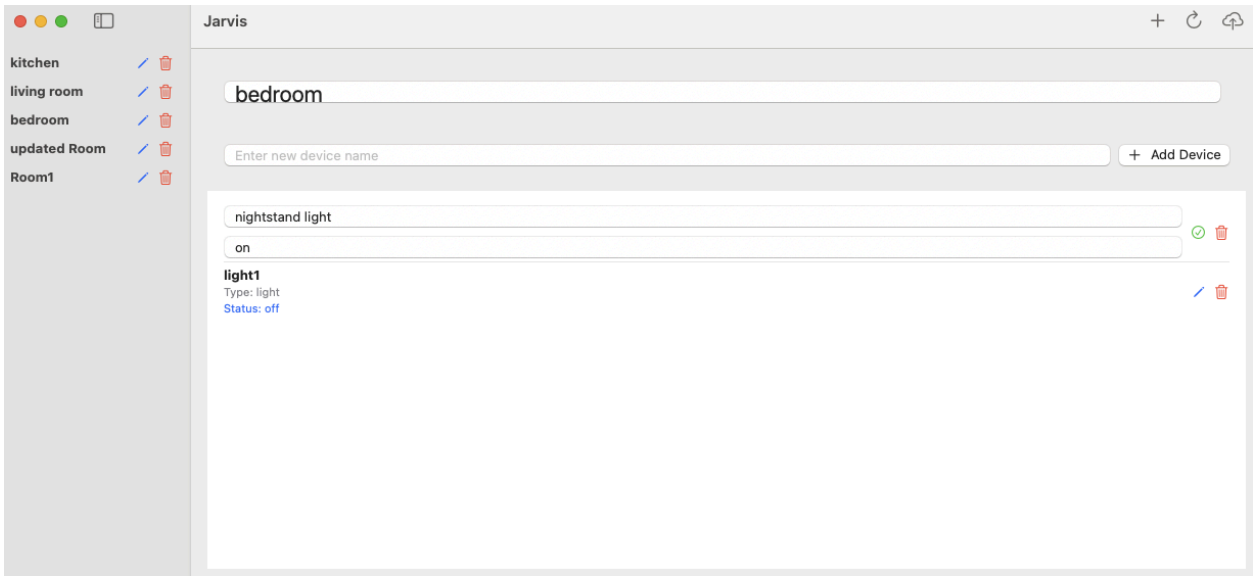


Figure 2.4

Part 3: Terminal Version

Introduction

The terminal interface allows users to activate and interact with Jarvis, a smart home assistant. Users can control supported devices like lightbulbs using specific commands entered into the terminal.

1. Version Requirement: Python 3.10 or higher
    a. Install the required libraries using pip install requirements-mac.txt or pip install requirements-win.txt depending on the user's operating system.
    b. Set up your MongoDB connection by storing the connection URI as an environment variable named MONGODB_URI
    c. For full functionality, two API keys are required:
        i. OpenAI API Key: Obtainable via the website, and should be stored as an environment variable named "OPENAI" via these two terminal commands:
        Mac: export OPENAI="YOUR-API-KEY"
        Windows: setx OPENAI YOUR-API-KEY
        ii. OpenWeatherMap API Key: Obtainable via this website, and should be stored as an environment variable named "WEATHER" via these two terminal commands:
        Mac: export WEATHER="YOUR-API-KEY"
        Windows: setx WEATHER YOUR-API-KEY

Running the Script

Navigate to the Project Directory: cd path/to/your/project

Run the Script: python main.py

Expected Output: When Jarvis is actively listening, the script should display "Jarvis: system active".

Supported Commands

Jarvis is capable of answering any general user queries as it is LLM-powered. For example, Jarvis will be able to answer the question: "How many colors does a rainbow include?". However, for questions like "What is the current stock price for Nvidia?", Jarvis will not be able to answer due to the nature of LLMs. In addition, via the commands listed below, Jarvis will be able to perform different actions including controlling smart home devices, scanning the user's local network, and so on.

(Prompt) User: turn on the light
(Response) Jarvis: turned on the light

(Prompt) User: turn off the light
(Response) Jarvis: turned off the light

(Prompt) User: scan network
(Response) Jarvis: 256 IP addresses (x hosts up) scanned in xx.xx seconds

(Prompt) User: what's the weather in x
(Response) Jarvis: it is currently xx.xx degrees and x in x

(Prompt) User: tell me about yourself
(Response) Jarvis: my name is Jarvis, and I'm your virtual assistant …

(Prompt) User: enable video feed
(Response) Jarvis: video feed starting

(Prompt) User: shut down
(Response) Jarvis: shutting down