

# Requirements Documentation

## Smart House

### Revision History

Date	Version	Description	Author
08/02/2026	1.0	Initial functional requirements	Katerina Arvay, Dario Ostojevic, Andre Sandblom

### Requirements List

Requirement Name	Priority
R1. Register user	Essential
R2. Authenticate user (login)	Essential
R3. Terminate user session (logout)	Essential
R4. Register device/unit	Essential
R5. Turn light on/off	Essential
R6. Turn alarm on/off	Essential
R7. Retrieve current temperature	Essential
R8. Retrieve device status information	Essential
R9. Manage authorized devices and units	Essential
R10. Block unauthorized access	Essential

# Requirements Descriptions

## R1 - Register user

The server shall allow new users to create an account in the system. User information shall be stored permanently in the database and each user shall be given appropriate access rights.

## R2 - Authenticate user (login)

The server shall verify user credentials when a user tries to access the system. Only users who are successfully logged in shall be allowed to control devices or view system information.

## R3 - Terminate user session (logout)

The server shall allow users to log out of the system. Logging out ends the active session and helps prevent unauthorized use of the system.

## R4 - Register device/unit

The server shall allow devices and communicating units (such as mobile or web clients) to register themselves. All registered devices and units shall be stored in a device registry in the database.

## R5 - Turn light on/off

The server shall receive commands to turn a light device on or off. After a command is processed, the server shall update the stored state of the light in the database.

## R6 - Turn alarm on/off

The server shall receive commands to activate or deactivate an alarm device. The server shall ensure that the alarm state stored in the system always matches the latest command.

## R7 - Retrieve current temperature

The server shall provide access to the most recent temperature value reported by a temperature sensor device.

## R8 - Retrieve device status information

The server shall allow authorized users and units to request the current status of registered devices, such as whether a light is on or off or whether an alarm is active.

### **R9 - Manage authorized devices and units**

The server shall keep track of which devices and units are currently registered and authorized to interact with the system. Only devices and units in this registry shall be allowed to communicate with the server.

### **R10 – Reject unauthorized requests**

The server shall reject any requests coming from users, devices or units that are not authenticated or authorized.