Application Briefing

This application's purpose is to provide the users with a simple and intuitive home automation system.

The users are able to control the floors, divisions and equipment by accessing the application from any platform by using a web browser.

The main user (the administrator) has full control over the system. He can add new floors to the system and modify/remove the existing ones. He can also customize each floor by splitting it into various divisions representing bedroom, kitchen, bathroom, etc. This whole process is as intuitive and simple as possible, and it resembles making a simple drawing in the MS Paint application. Lastly, the administrator user is able to add equipment to each division. The application comes with a set of controllable equipment that the user can choose from. The set includes such equipment as: Lamps, windows blinders, doors, TVs, air conditioners, and kitchen stoves, among others.

In order to control the access of different types of users like children, the administrator user can define new user roles, for which they can impose numerous restrictions, such as allowing the target user to control only a subset of available equipment while forbidding all other, or forbidding access to some device functionalities, such as scheduling.

Task Scenarios

1. Adding my house with all the existing equipment to the automation system.

    1.1. Firstly, I logged in as an administrator, with the password 'admin'.

    1.2. I decided to add my 2-floor house, with 4 divisions on the 1st floor and 3 divisions on the 2nd floor, to the automation system. I opened the application, and added two floors to the system.

    1.3. Now I needed to add the divisions to the floors, so I proceeded to add various the divisions in accordance with the paper house plan. I repeated the same process for each floor, by adding 4 division to the first and 3 to the second.

    1.4. After having the complete house plan added to the system, I proceeded to add all of my equipment to the appropriate divisions. I started by placing 2 air conditioners, 2 doors with electric lockers, 1 electric window blinds, and a TV in my living room. Then I filled all other divisions with the appropriate equipment.

2. Toggling the first floor kitchen lights

3. I decided to set the air conditioner in my bedroom on the 2nd floor to turn on every morning at 8 o'clock, at 22 degrees Celsius.
   On the next day, I woke up a little bit cold and realized that I should set the room temperature higher, to 25 degrees.

4. In order to allow my children to access the application, I had to configure a user role for them, such that it would be only allowed for them to change the state of some equipment. In my case I wanted to let them control the lamps, the TV and the air conditioner.
   After settings up the user role, my children are able to login into the automation system and make the changes that are allowed to them.