Use Cases

Identifier: Case 1

Name: Check System

Author: Grupo …

Version: Versão 1

Change history: -----

Priority: ---

Criticality: Medium

Source: Kemilly Garcia

Short description: It provides the user the ability to check the state of the sensors and actuators.

Goal(s): Check sensors and actuators state.

Primary actor: User.

Other actors: Master.

Precondition: The system is turned ON.

Postcondition: The user knows now the information on the sensors and actuators.

Result: Obtain information.

Main scenario: The user requests the current state of the system and that information is provided.

Alternative scenario(s): None.

Exception scenario(s): The request isn’t attended to which means the system needs maintenance.

Identifier: Case 2

Name: Configure System

Author: Grupo …

Version: Versão 1

Change history: ----

Priority: Low when compared to Reconfigure System.

Criticality: High

Source: Kemilly Garcia

Short description: The master makes rules for the house that can later be changed by the user.

Goal(s): Set a list of ground rules.

Primary actor: Master.

Other actors: None.

Precondition: The system doesn´t have any rules.

Postcondition: The system has ground rules.

Result: Have base rules for the house.

Main scenario: The master inputs a set of ground rules for the system to work. These rules can later be changed by the user.

Alternative scenario(s): None.

Exception scenario(s): The rules can’t be saved.

Identifier: Case 3

Name: Define house default preferences

Author: Grupo …

Version: Versão 1

Change history: -----

Priority: Low when compared to Define room default preferences

Criticality: High

Source: Kemilly Garcia

Short description: The master sets rules for the entire house.

Goal(s): Set a list of house rules.

Primary actor: Master

Other actors: None

Precondition: The system doesn´t have any house rules.

Postcondition: The system has base house rules.

Result: Have general rules for the house.

Main scenario: The master inputs a set of ground rules of the general house for the system to work. These rules can later be changed by the user.

Alternative scenario(s): None.

Exception scenario(s): The rules can’t be saved.

Identifier: Case 4

Name: Define room default preferences

Author: Grupo …

Version: Versão 1

Change history: ----

Priority: High when compared to Define house default preferences

Criticality: High

Source: Kemilly Garcia

Short description: The master sets rules for the each specific room.

Goal(s): Set a list of each room rules.

Primary actor: Master

Other actors: None

Precondition: The system doesn´t have any rules for the rooms.

Postcondition: The system has base rules for each room.

Result: Have rules for the rooms.

Main scenario: The master inputs a set of ground rules for each specific room for the system to work. These rules can later be changed by the user.

Alternative scenario(s): None.

Exception scenario(s): The rules can’t be saved.

Identifier: Case 5

Name: Reconfigure System

Author: Grupo …

Version: Versão 1

Change history: -----

Priority: High when compared to Configure System

Criticality: Medium

Source: Kemilly Garcia

Short description: It provides the user the ability to change the rules imposed by the master.

Goal(s): Change the rules to the user’s preferred settings.

Primary actor: User

Other actors: Master

Precondition:

Postcondition: The setting are as desired by the user.

Result: The user has his own rules.

Main scenario: The user changes the rules set previously.

Alternative scenario(s): None.

Exception scenario(s): The changes can’t be saved.

Identifier: Case 6

Name: Change house settings

Author: Grupo …

Version: Versão 1

Change history: ----

Priority: Low when compared to Change room settings

Criticality: Medium

Source: Kemilly Garcia

Short description: It provides the user the ability to change the rules imposed by the master for the entire house.

Goal(s): Change the rules of the house to the user’s preferred settings.

Primary actor: User

Other actors: Master

Precondition:

Postcondition: The rules of the house are as desired by the user.

Result: The user has his own rules for the house.

Main scenario: The user changes the genera house rules set previously.

Alternative scenario(s): None.

Exception scenario(s): The changes can’t be saved.

Identifier: Case 7

Name: Change room settings

Author: Grupo …

Version: Versão 1

Change history: ----

Priority: High when compared to Change house settings

Criticality: Medium

Source: Kemilly Garcia

Short description: It provides the user the ability to change the rules imposed by the master for each room.

Goal(s): Change the rules of each room to the user’s preferred settings.

Primary actor: User

Other actors: Master

Precondition:

Postcondition: The rules of each room are as desired by the user.

Result: The user has his own rules for each room.

Main scenario: The user changes the rules set previously of a room.

Alternative scenario(s): None.

Exception scenario(s): The changes can’t be saved.

Identifier: Case 8

Name: System Control

Author: Grupo …

Version: Versão 1

Change history: ----

Priority: --

Criticality: Very High

Source: Kemilly Garcia

Short description: Receives information from the sensors and activates the actuators depending on the house rules of the moment.

Goal(s): Control the actuators according to the rules and the information of the sensors.

Primary actor:

Other actors:

Precondition: The sensors are transmitting information.

Postcondition: The actuators are active.

Result: The system works as is supposed.

Main scenario: The actuators activate according to the information gathered by the sensors and the rules set at the moment.

Alternative scenario(s): None.

Exception scenario(s): The sensors don’t receive information.

The actuators don’t activate.

Identifier: Case 9

Name: Maintenance

Author: Grupo …

Version: Versão 1

Change history: ----

Priority: Higher than any other order except Login

Criticality: High

Source: Kemilly Garcia

Short description: The master repairs the system as necessary.

Goal(s): Repair the system.

Primary actor: Master

Other actors: None

Precondition: The system is broken

Postcondition: The system is repaired

Result: Have a functioning system.

Main scenario: The system needs repairing.

Alternative scenario(s): None:

Exception scenario(s): The master can’t login.

Identifier: Case 10

Name: Login

Author: Grupo …

Version: Versão 1

Change history: ----

Priority: Higher than any other order

Criticality: Very High

Source: Kemilly Garcia

Short description: The master has to provide his credentials in order to be able to repair the system.

Goal(s): Enter the maintenance process.

Primary actor: Master

Other actors: None

Precondition: The master needs to repair the system.

Postcondition: The master can repair the system.

Result: Have access to the maintenance case.

Main scenario: The master logs in to be able to repair the system.

Alternative scenario(s): None.

Exception scenario(s): The master can’t login.