

# Requirements & Design

## SE4YH



2015-10-25



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MÄLARDALENS HÖGSKOLA

# Requirements SE4YH

# Agenda

- Project Overview
- Requirements
- User Stories
- Backlog
- Design

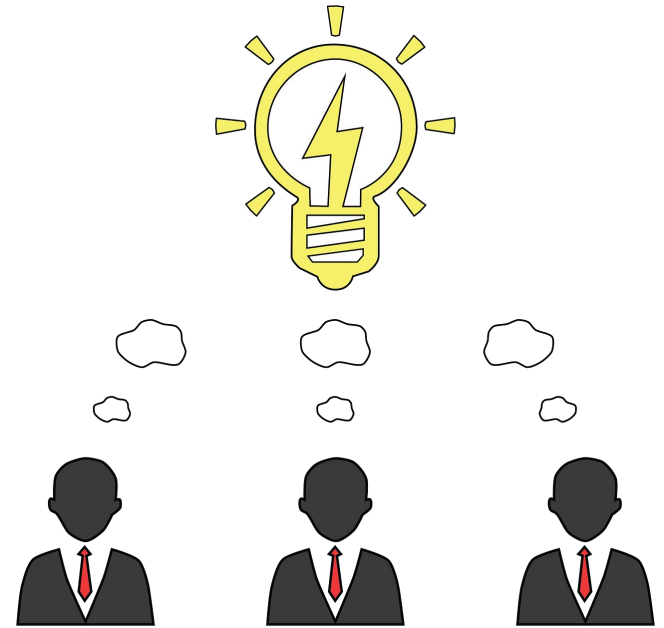
# Project Overview

Centralized system which allows user to interact and define rules of their smart devices in their home

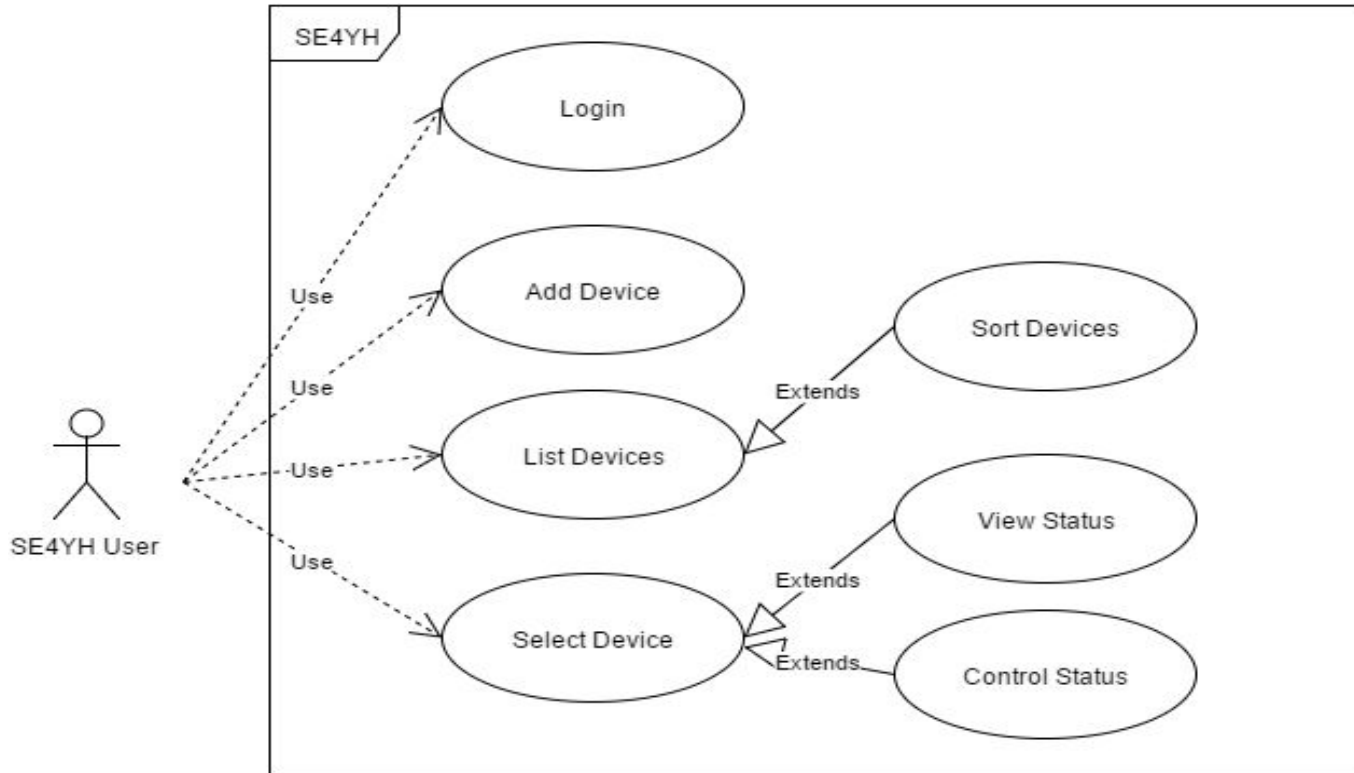
- user has complete control
- flexible, user-friendly, easy-to-use application

# Requirements gathering process

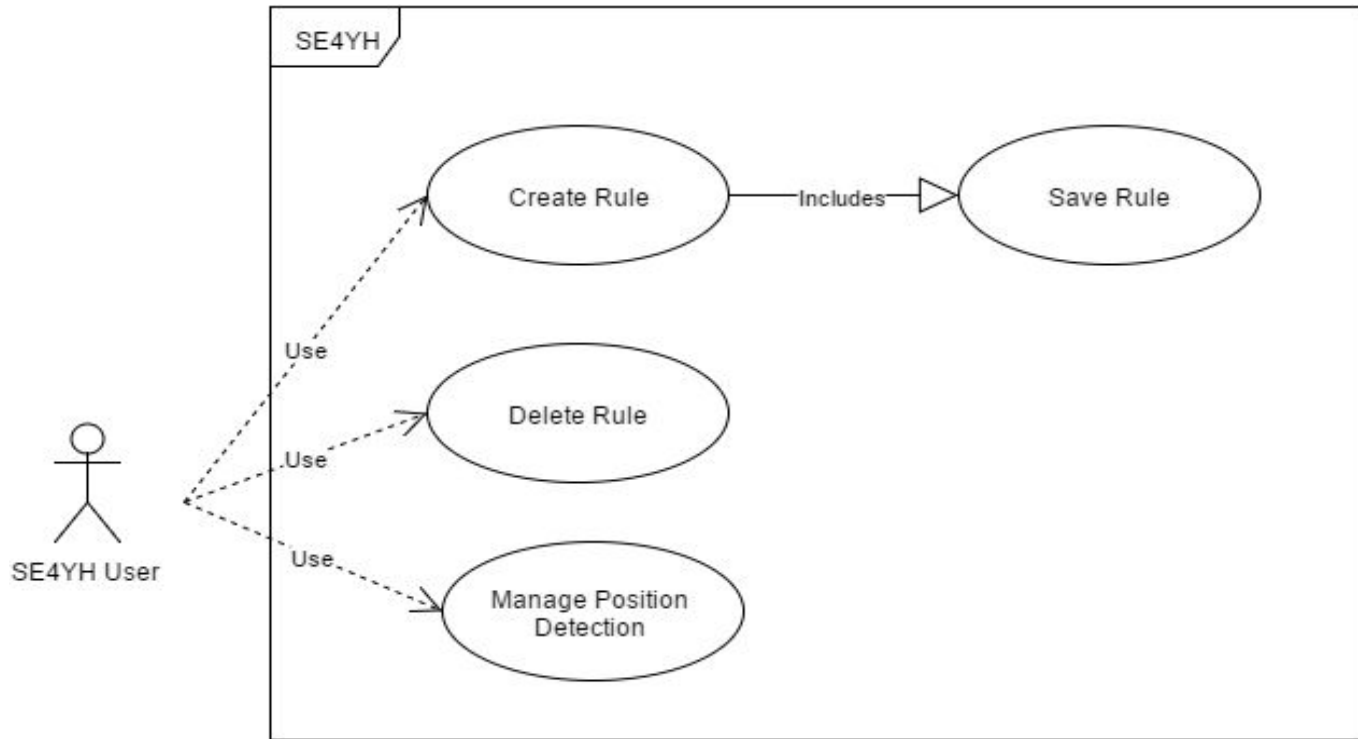
- Talking with the product owner
- Reading project description
- Buzz sessions (Brainstorming)



# Functional requirements



# Functional requirements



# User stories (example)

## **US1 : As a user I want to be able to login into the application if I am at home**

When the user starts the client, he can connect to the system. If he is already connected then the client shows the main screen.

### **Validation criteria:**

- If the user opens the application and he is not connected to the system., then a screen is shown where he can type in xx.
- If the user typed in some wrong xx, then an error message is shown.
- If the user typed in correct xx, then the main screen is shown automatically.
- If the user opens the application and he is connected to the system, then the main screen is shown.



# Non-functional requirements

- User-friendly interface
- Secure connection
- Quick system response time
- Fault tolerance

# Backlog

Story Id	Story description	Priority
US1	As a user I want to be able to login into the application if I am at home	High
US2	As a user I want to be able to login into the application if I am not at home	High
US3	As a user I want to be able to add a new smart device to my network.	High
US4	As a user I want to be able to see a list of all smart devices currently connected to my network.	Low
US5	As a user I want to be able to sort my list of smart devices based on certain criteria. e.g power consumption, device type etc	Low

# Backlog

Story Id	Story description	Priority
US6	As a user I want to be able to add a new smart device to my network.	High
US7	As a user I want to be able to see a list of all smart devices currently connected to my network.	Low
US8	As a user I want to be able to sort my list of smart devices based on certain criteria. e.g power consumption, device type etc	High
US9	As a user I want to be able to view the status of a selected smart device.	High
US10	As a user I want to be able to change the status of a selected smart device. (Perform action with smart device).	High

# Requirements validating

- Creating, executing and validating test cases
- Communication with the sponsor

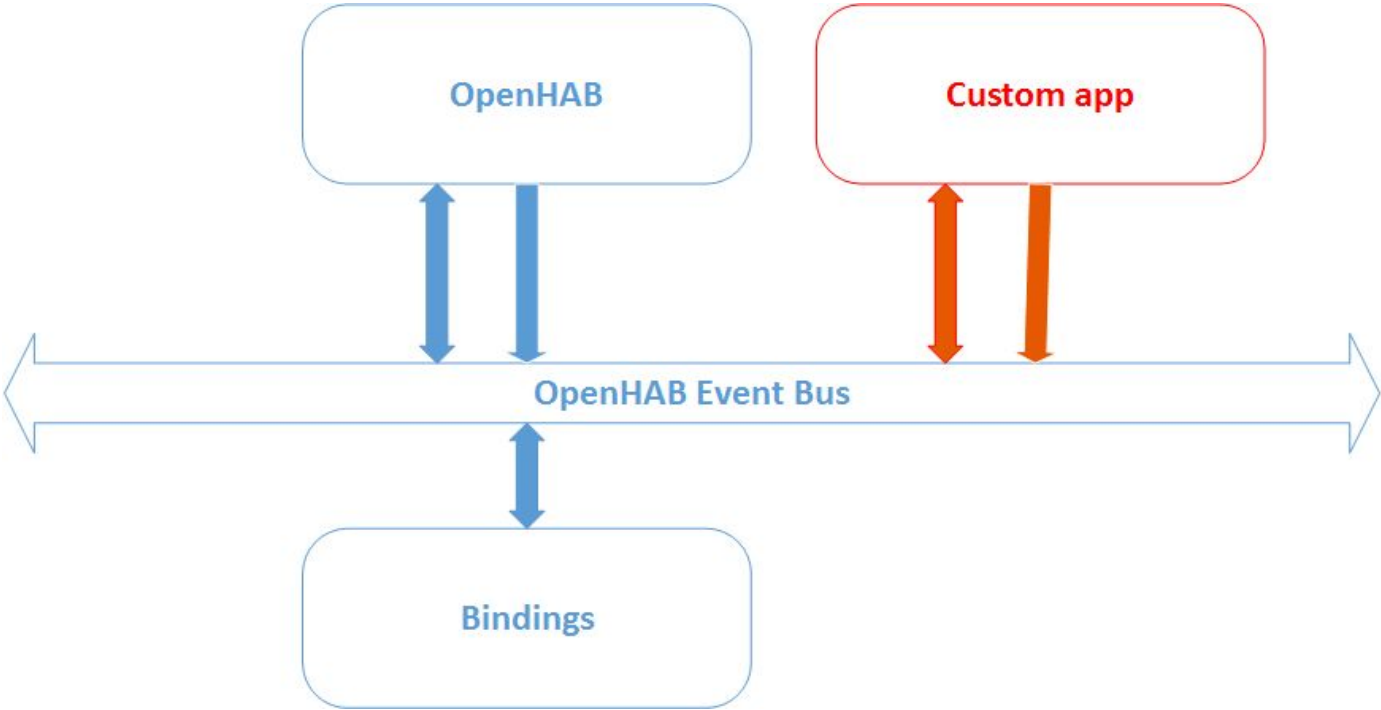


# Design SE4YH

# Agenda

- Architecture
- OpenHAB
- Custom Application
- Technologies

# Architecture

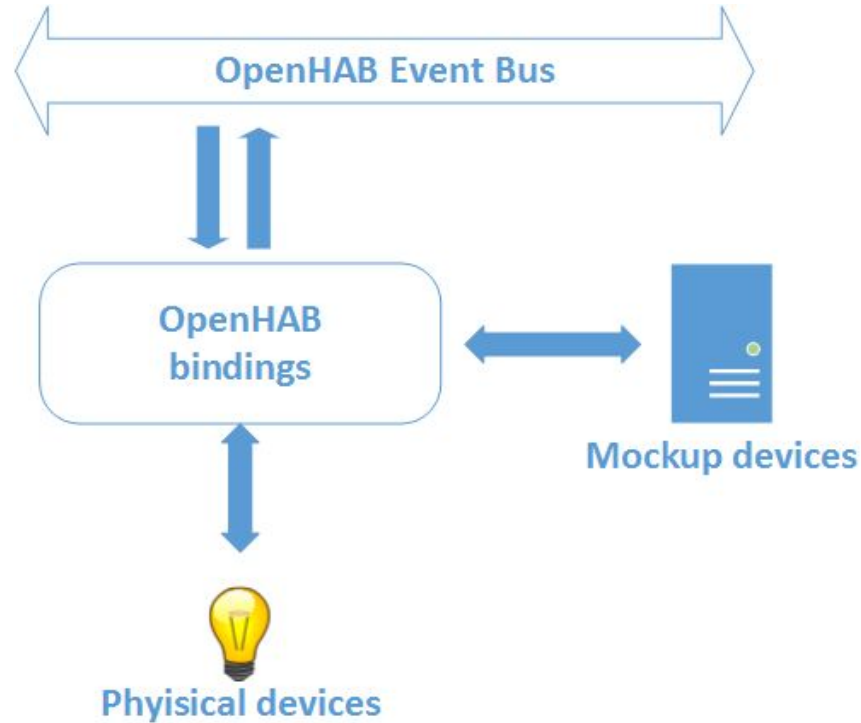


# OpenHAB

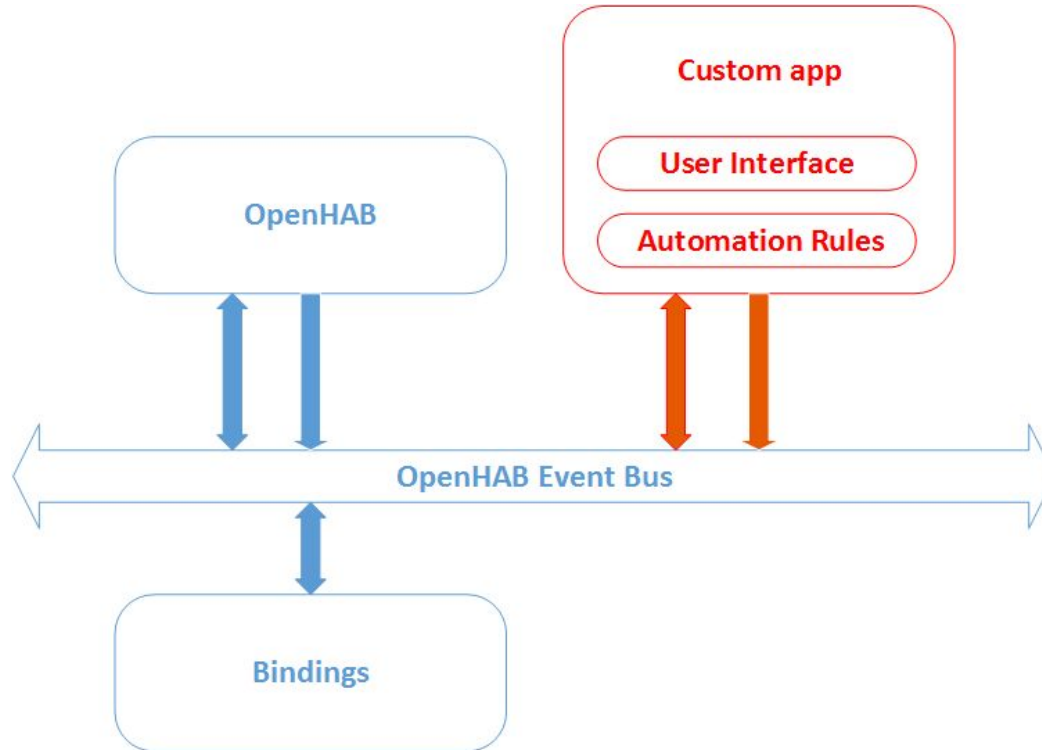




# Bindings



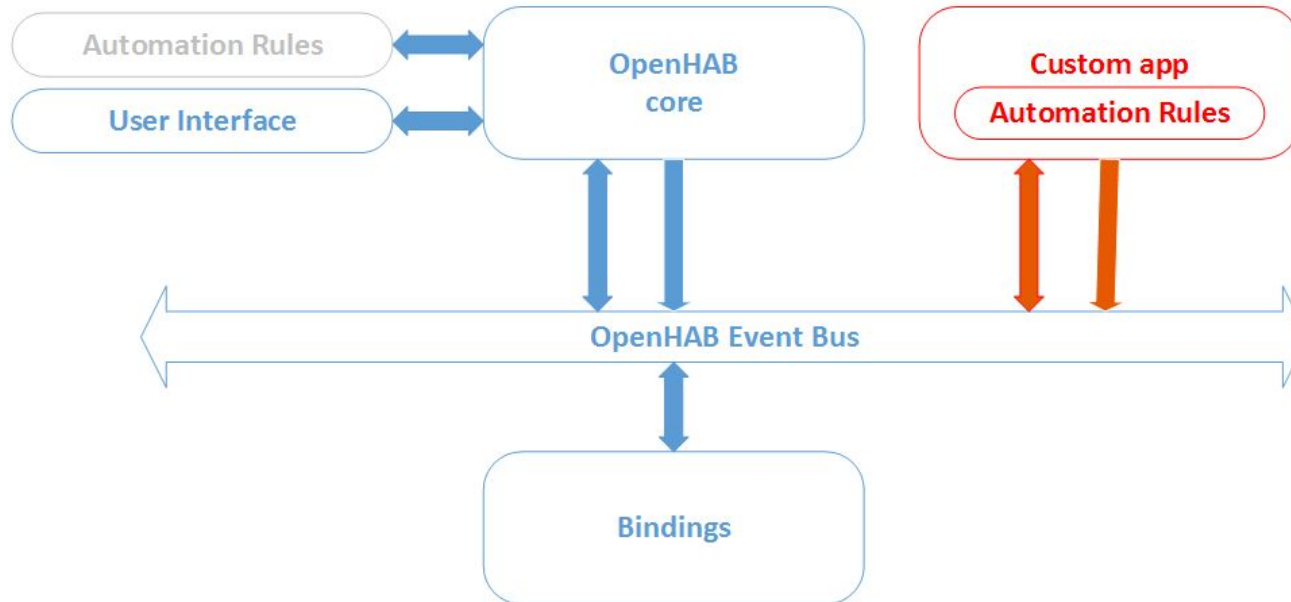
# Custom Application



# Custom Application - 2

■ Modified / Developed

■ Optional



# Technologies

- Java
- OSGi
- openHAB Designer
- Maven
- Android



# Revised Project Plan

- Change sprint duration to 2 weeks
- Redefine team roles