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**Department of
Computer Science**

Shared Internet Of Things Infrastructure Platform:

Domain Analysis

Software Architecture (H09B5a and H07Z9a) – Part 1

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1. Domain analysis

1.1 Domain models

This section shows the domain model(s).

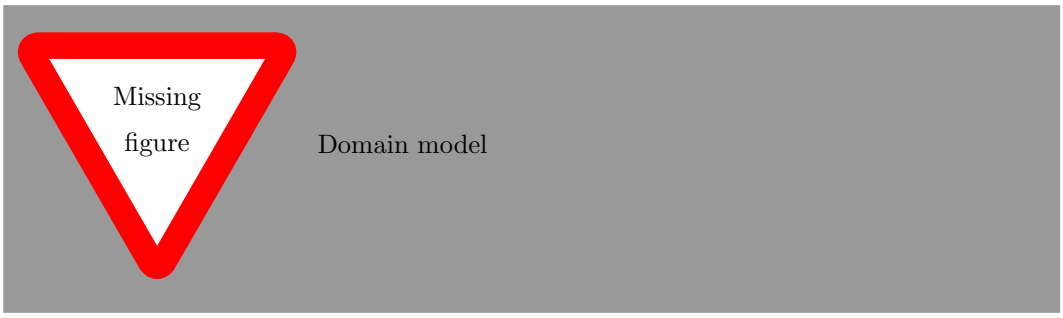

Figure 1.1: The domain model for the system.

1.2 Domain constraints

In this section we provide additional domain constraints.

- This is a first constraint.
- This is a second constraint.

1.3 Glossary

In this section, we provide a glossary of the most important terminology used in this analysis.

- **Term1**: definition
- **Term2**: definition

2. Functional requirements

Use case model

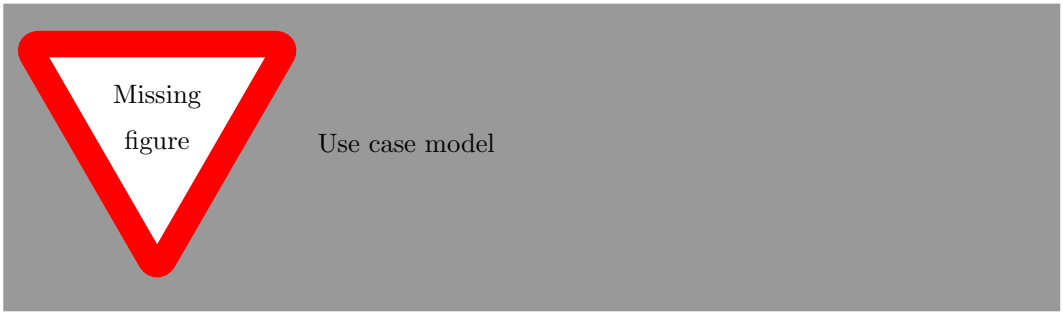

Figure 2.1: Use case diagram for the system.

2.1 Use case overview

UC1: Name Short summary of this use case scenario

2.2 Detailed use cases

2.2.1 *UC1*: Name

- **Name:** Name of use case 1
- **Primary actor:** primary actor
- **Secondary actor(s)**: secondary actor(s)
- **Interested parties:**
  - *Name of interested party:* reason why party is interested
- **Preconditions:**
  - First precondition.
  - Second precondition.
- **Postconditions:**
  - First postcondition.
  - Second postcondition.
- **Main scenario:**
  1. Step 1
  2. Step 2
  3. Step 3
  4. ...

- **Alternative scenarios:**

  3b. Alternative at step 3

- **Remarks:**
  - First remark

3. Non-functional requirements

In this section, we model the non-functional requirements for the system in the form of *quality attribute scenarios*. We provide for each type (availability, performance and modifiability) one requirement.

3.1 Availability

3.1.1 *Av1*: Name of the quality attribute scenario

Shortly describe the context of the scenario.

- **Source:** source
- **Stimulus:**
  - Description of a first stimulus.
  - Description of a second stimulus.
- **Artifact:** the stimulated artifact
- **Environment:** the condition under which the stimulus occurs
- **Response:**
  - Describe how the system should respond to the stimulus.
- **Response measure:**
  - Describe how the satisfaction of a response is measured.

3.2 Performance

3.2.1 *P1*: Name of the quality attribute scenario

Shortly describe the context of the scenario.

- **Source:** source
- **Stimulus:**
  - Description of a first stimulus.
  - Description of a second stimulus.
- **Artifact:** the stimulated artifact
- **Environment:** the condition under which the stimulus occurs
- **Response:**
  - Describe how the system should respond to the stimulus.
- **Response measure:**
  - Describe how the satisfaction of a response is measured.

3.3 Modifiability

3.3.1 *M1*: Name of the quality attribute scenario

Shortly describe the context of the scenario.

- **Source:** source
- **Stimulus:**
  - Description of a first stimulus.
  - Description of a second stimulus.
- **Artifact:** the stimulated artifact
- **Environment:** the condition under which the stimulus occurs
- **Response:**
  - Describe how the system should respond to the stimulus.
- **Response measure:**
  - Describe how the satisfaction of a response is measured.

3.4 Usability

3.4.1 *U1*: Name of the quality attribute scenario

Shortly describe the context of the scenario.

- **Source:** source
- **Stimulus:**
  - Description of a first stimulus.
  - Description of a second stimulus.
- **Artifact:** the stimulated artifact
- **Environment:** the condition under which the stimulus occurs
- **Response:**
  - Describe how the system should respond to the stimulus.
- **Response measure:**
  - Describe how the satisfaction of a response is measured.