A3: Requirement analysis

David Pereira & José Proença & Eduardo Tovar

RAMDE – 2021/2022

To do

Produce a report as a PDF document including the answers to the exercises below.

What to submit

Submit in your group's git repository: (1) the PDF report, (2) the Doorstop requirements requested in the exercises, and (3) the HTML documentation produced by Doorstop.

Deadline:

9 Jan 2022 @ 23:59 (Monday) – together with Assignment 2

Requirements for a vending machine

Exercise 1. Recall the vending machine from the last assignment. The informal assignments over the machine were given by the text below.

> *I would like the vending machine to sell 3 items: apples, bananas, and chocolates. It should be possible to buy chocolates for 2€ and fruit for 1€. Only 1€ and 2€ coins are accepted. The machine has a maximum capacity for 1€ coins and for 2€ coins. The machine does not accept coins if its capacity is full. The machine should give change back when buying fruit after inserting 2€. If the machine has already 2€ inserted, it refuses another coin. If the machine has no 1€ coins, it cannot not sell fruit with a 2€ coin. The user can request the money back after inserting coins.*

1.1. Create and classify the requirements from the text above following the EARS patterns

1.2. Use the Doorstop tool to produce these requirements in the git repository, under the folder `req/vending`. Generate the **html documentation** based on these requirements.

Include both the Doorstop requirements and the html documentation in your group's git repository.

Requirements for the Farmer's problem

Exercise 2. Recall the farmer's problem from the 2 previous assignments.

2.1. Create and classify a set of requirements using the EARS patterns that capture there constraints and goals. If you are able to identify new requirements or aspects that were not explicit in the explanations of the assignments, **list them and explain them**.

2.2. Use the Doorstop tool to produce these requirements in the git repository, under the folder `req/farmer`. Generate the **html documentation** based on these requirements (in the same way you did in Exercise 1.2).

Include both the Doorstop requirements and the html documentation in your group's git repository, merged with the ones produced in Exercise 1.2.

Self-peer-evaluation

Exercise 3. In a scale from 0-5, where 5 is better than 0, give a mark to you and each of your team groups for each of the following criteria:

- **Effort** (time spent)
- **Quality** (of the work produced)
- **Collaboration** (how easy it was to meet and interact)

Send this information individually as before by email or Teams to David Pereira and José Proença. No justification is needed – e.g., *"Group 3: João: Effort 5, Quality 4, Collaboration 5; Maria: ..."*.