



POLITECNICO
MILANO 1863

CLup

Requirement Analysis and Specification Document

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1 Introduction

1.1 Purpose

The coronavirus emergency has put a strain on society on many levels, in particular, grocery shopping can become a challenge in the presence of such strict rules: supermarkets need to restrict access to their stores to avoid having crowds inside and long lines outside. The goal of this project is to develop an easy-to-use application that, on the one side, allows store managers to regulate the influx of people in the building and, on the other side, saves people from having to line up and stand outside of stores for hours on end.

The application will allow customers to “line up” (i.e., retrieve a number) from their home, and then wait until their number is called (or is close to being called) to approach the store. In addition, the application could be used to generate QR codes that would be scanned upon entering the store, thus allowing store managers to monitor entrances.

1. CLup should allow customers to queue up remotely
2. CLup should allow store owners to monitor entrances
3. CLup should provide the customer with a reasonably precise estimate of waiting time
4. CLup should alert the customers when it is time to get to the shop taking into account travel time
5. CLup should allow customers to book future visits to stores
6. CLup should allow customers to specify estimated visit duration and desired objects

1.2 Scope

... Here you see a subsubsection

1.2.1 World Phenomena

1.3 Scope

1.4 Definitions, Acronyms, Abbreviations

1.5 Revision history

1.6 Reference Documents

1.7 Document Structure

2 Overall Description

Here you can see how to include an image in your document.

Here is the command to refer to another element (section, figure, table, ...) in the document: *As discussed in Section 1.7 and as shown in Figure 1,* Here is how to introduce a bibliographic citation [1]. Bibliographic references should be included in a .bib file.

Table generation is a bit complicated in Latex. You will soon become proficient, but to start you can rely on tools or external services. See for instance this <https://www.tablesgenerator.com>.

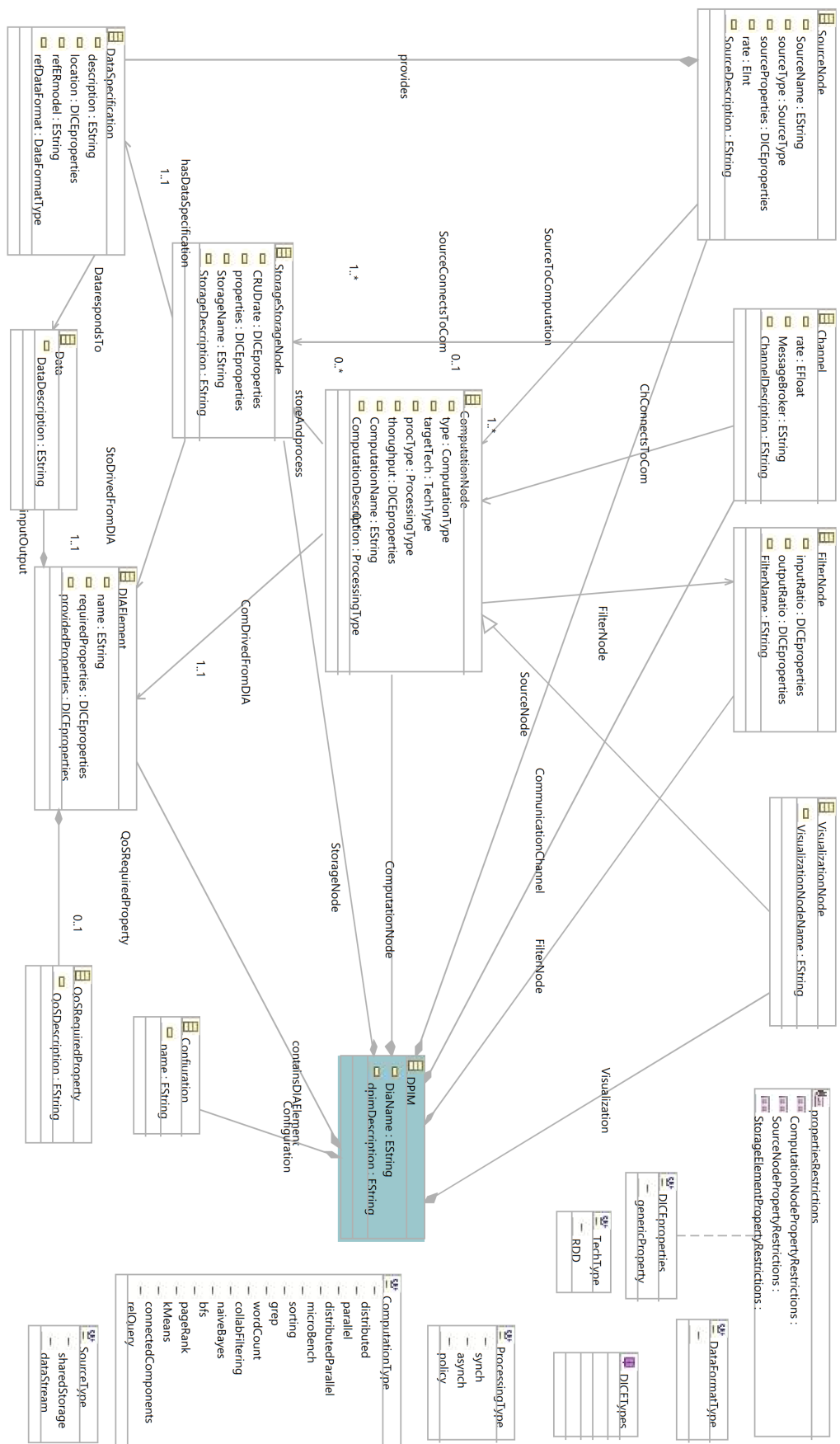


Figure 1: DICE DPIM metamodel.

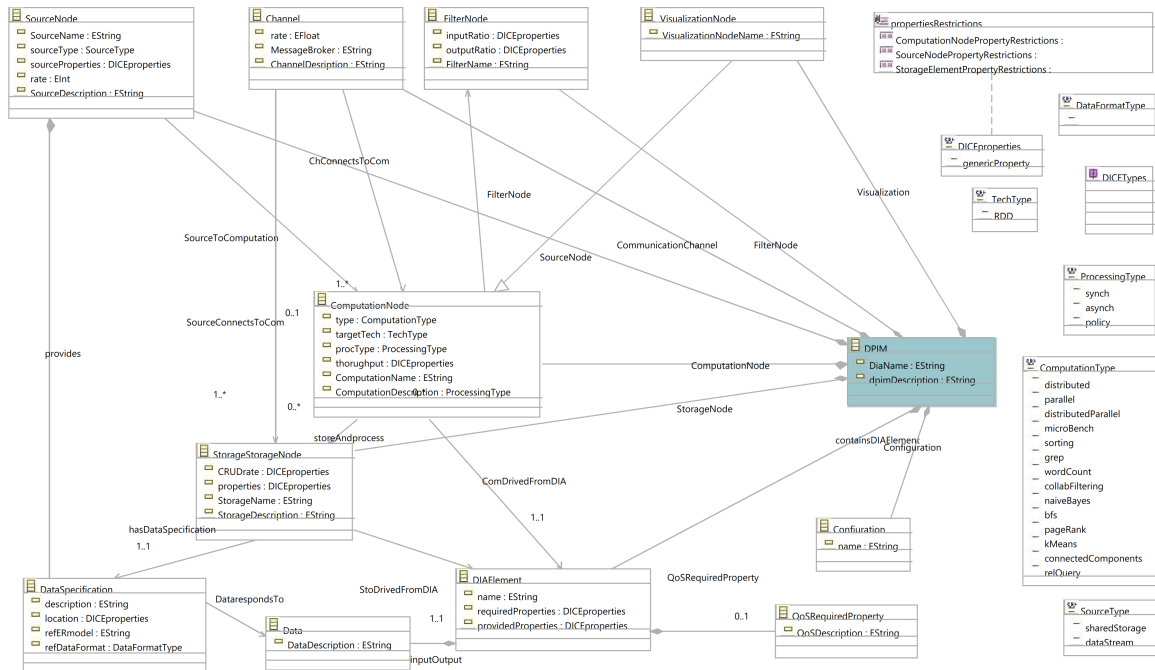


Figure 2: DICE DPIM metamodel in portrait form.

3 Specific Requirements

Organize this section according to the rules defined in the project description.

4 Formal Analysis Using Alloy

Organize this section according to the rules defined in the project description.

5 Effort Spent

Provide here information about how much effort each group member spent in working at this document. We would appreciate details here.

References

- [1] S. Bernardi, J. Merseguer, and D. C. Petriu. A dependability profile within MARTE. *Software and Systems Modeling*, 10(3):313–336, 2011.