**4. Alloy and other information**

**4.1 Alloy**

**4.1.1 What is Alloy?**

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**Alloy** is a declarative specification language for expressing complex structural constraints and behavior in a software system. It is a very powerful support in the Software Engineering field.

**Alloy** provides a simple structural modeling tool based on *first-order predicate calculus* (*logic*).

***Alloy*** is targeted at the creation of micro-models (finite, of course) that can then be automatically checked for correctness in a formal way.

**Alloy** specifications can be checked using the **Alloy Analyzer**, which works with reduction to *SAT* (*Propositional Satisfiability Problem*).

We will use **Alloy** to check the correctness and the consistency of *myTaxiService* model.

**4.1. x Other Alloy Chapters**

**4.2 Software and Tools used**

We used the following software and Tools:

* List

**4.3 Hours of work**

Here it is the count of our hours of work:

* **Andrea Martino**: O(nlog(n))
* **Francesco Marchesani**: O(log(n!))

**With n >= 100kHours**