Alloy vs UML

What we’ve modelled of the UML in alloy

The goal of modelling in alloy is to describe some aspect of the system (but not the entire system), constrain it to exclude ill-formed examples and check properties about it.

The section in UML concerning the external companies connected to Travlendar+, for instance the ones which can provide tickets or that can offer sharing systems, is not modelled in Alloy cause we assume that they will behave correctly in our system thanks to the agreements they took with us.

We are also didn’t model time because it’s not useful in the model, but we will care about Time in other portions of the project analysis. The time break will not be modelled and also the fact that the application will not advise trips by bike or foot on late hours.

There’s also an association in the alloy model that’s not present in the UML and that’s the one in the signature Travel called “associated” that’s nothing more than the reverse arc of the “requires” arc present in the Meeting signature. We added it only to simplify some formulas.

Point of interests are not modelled in alloy because they’re not useful in the model testing.

In the end, some specific or multiple attributes are modelled only in alloy to avoid to full fill the UML diagram with less interesting aspects.