1 Preliminaries

In this section we will present few motivating examples. And then we will describe briefly few basic constructs, which will be used in following sections.

1.1 Motivating Example

We are interested in SMT solver which helps to check the satisfiability of constraints over rich set of data types. Here we will see few examples such constraints on strings.

Find an assignment for x, where $x."ab" = "ba".x$ and the length of x equals to 7. Find assignments for x and y, where x and y are distinct and their lengths are equal. Find assignments for x and y, where $x.y! = y.x$. Find a model for x, y and z, where $x."ab".y = y."ba".zandz = x.yandx."a"! = "a".x$. Find a model for x and y, where both x and y are in the $RegEx(a*b)*$ and they are different but have the same length.

$Findanassignment q = \texttt{getelementptr}\ p, o_1, \cdots, o_k \ \rightarrow\ q = p{+}o_1.s_1{+}\cdots{+}o_k.s_k$

$$q = \texttt{getelementptr}\ p, o_1, \cdots, o_k \ \rightarrow\ q = p + o_1.s_1 + \cdots + o_k.s_k$$

where p, q kajsdgjk.

Give an example to illustrate the idea of your topic. Import images in the following way. Store the images in a separate folder as precasted in our template.

References

[1] Michel Goossens, Frank Mittelbach, and Alexander Samarin. *The LaTeX Companion*. Addison-Wesley, Reading, Massachusetts, 1993.

[2] Albert Einstein. Zur Elektrodynamik bewegter Körper. (German) [On the electrodynamics of moving bodies]. *Annalen der Physik*, 322(10):891–921, 1905.

[3] Donald Knuth. Knuth: Computers and typesetting.