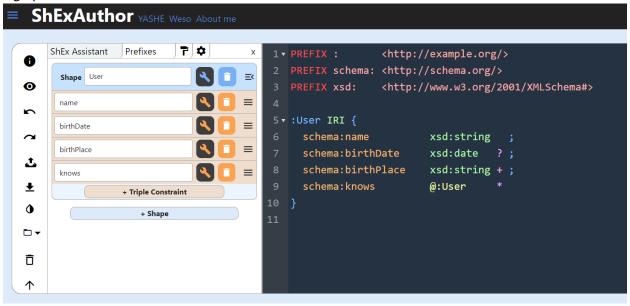
### ShExAuthor Manual

ShExAuthor( https://www.weso.es/shex-author/) is an online tool for creating Shape Expressions using a graphical editor. It looks like this:



We can distinguish 3 main components delimited in the image below by red rectangles. From left to right: Tool Panel, Graphic assistant and Text Editor.

```
Prefixes
     ShEx Assistant
                                                                    <http://example.org/>
                                               2 PREFIX schema: <http://schema.org/>
      Shape User
0
                                                 PREFIX xsd:
                                                                    <http://www.w3.org/2001/XMLSchema#>
      name
5 → :User IRI {
      birthDate
                                                    schema:name
                                                                             xsd:string
                                         \equiv
      birthPlace
                                                    schema:birthDate
                                                                             xsd:date
£
                                                    schema:birthPlace
                                                                             xsd:string + ;
      knows
                                                    schema:knows
                                                                            @:User
<u>*</u>
                  + Triple Constraint
•
                      + Shape
Ô
1
```

### Tool panel and text editor

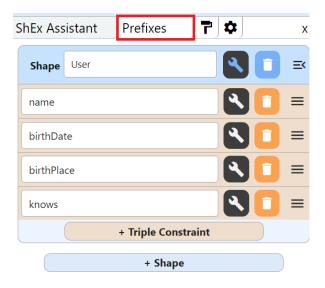
In this experiment it will not be necessary to use the tools panel, so it will not be explained. It is not allowed to use the text editor to perform the tasks, but it can be used to visualize the Shapes that we create from the graphic assistant.

### **Graphical Assistant**

The graphical assistant represents through a system of boxes and colors Shapes, Triple Constraints (a Triple Constraint is a constraint that we write inside a Shape Ex: schema:name xsd:string;) and Prefixes. We can create, edit and delete any of these elements.

#### **Prefixes**

We access the prefixes screen by clicking on its tab:



The prefixes are represented in pink boxes where in the left text field we write the alias with which we are going to refer to the prefix and in the right one its IRI:



### Delete prefix

To delete a prefix, click on the black trash can next to it:



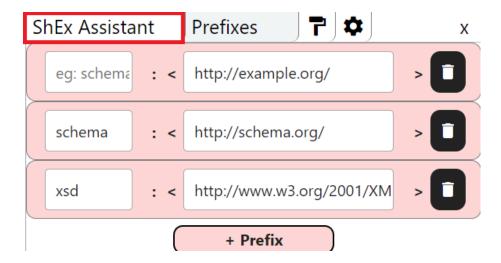
### Create Prefix

To create a prefix:



### Shapes

Return to the Shapes screen by clicking on the assistant tab:



A Shape is represented as a blue box containing other brown boxes which are the triple constraints.



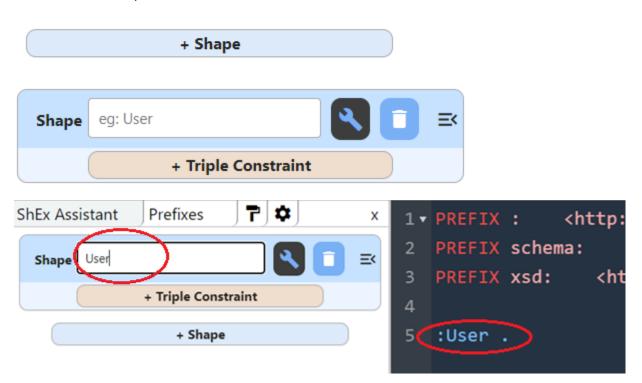
# Delete Shape

Before creating a new Shape, let's delete the one that comes as an example. To do this we click on the blue trash can of the Shape we want to delete:



# Create Shape

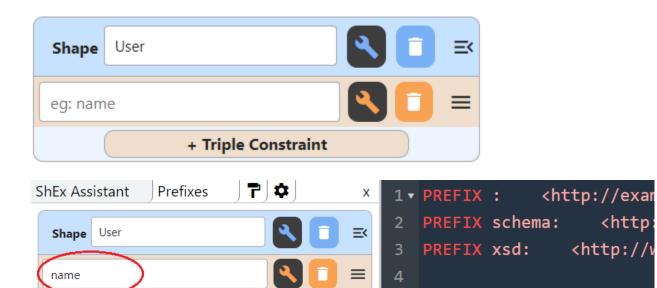
To create a new Shape:



## Create Triple Constraints

Para crear una Triple Constraint:

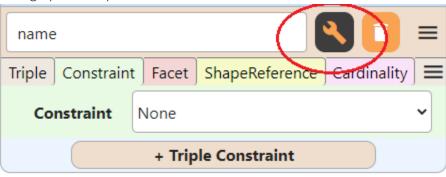
+ Triple Constraint



5 **∵** :User {

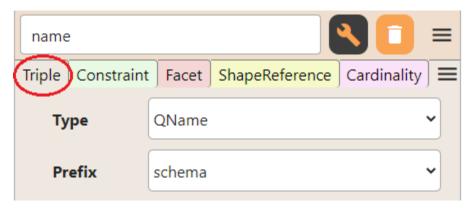
schema:name .

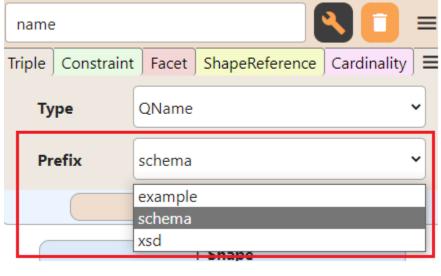
# Change prefix Triple Constraint



+ Triple Constraint

+ Shape





### **Change Constraint**

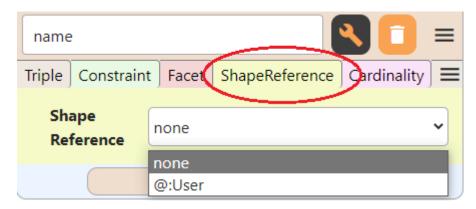


In the dropdown that appears we can set any primitive type (String, Integer, etc.). All of them use the prefix xsd. We can also set the type we want by selecting the last value "Custom". This will display more options in the Constraint section. We write the name and the prefix of the type we want:



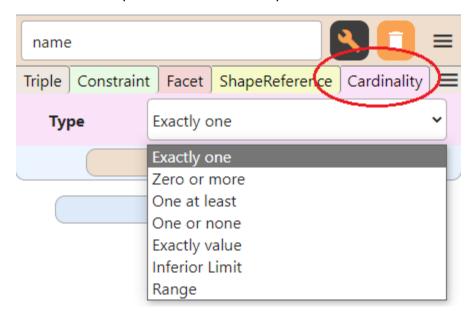
### Referenciate Shape

If we want to reference another Shape already created, we go to the ShapeReference section and select the desired one:



### Cardinality

To set a cardinality we access the Cardinality section and select the desired cardinality:



#### Wikidata

### Reminder:

Wikidata is a knowledge source that stores mainly entities and properties. Entities are elements such as: people, countries, places, etc. Properties establish relationships between entities or between entities and other values such as simple types (e.g. age, child of, date of birth, etc.). Entities have a unique identifier which is given by the letter Q followed by a number (e.g. Q76 would represent "Obama"). Properties are also represented by a unique identifier which is the letter P followed by a number (e.g. P21 would represent "sex or gender"). The prefix wdt: is used for properties and the prefix wd: for entities.

Unfortunately, ShExAuthor does not offer any extra functionality to work with Wikidata entities and properties. So if we want to reference a Wikidata entity or property we will have to look it up directly in the Wikidata page (https://www.wikidata.org/) to know its unique identifier:



Main page Community portal 44th president of the United States from 2009 to 2017

Barack Hussein Obama II | Barack Obama II | Barack Huss

Barack Obama | BHO | Barack | Barack H. Obama