Shajara Documentation

Release 0.2.0

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Apr 20, 2020

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CHAPTER 1

Classes

Node([value, label])	
NodeProcessor	
OrderedDict	Dictionary that remembers insertion order
Tree([root])	Generic tree representation

1.1 Node

class shajara.**Node**(*value=0*, *label=''*)

Bases: object

Methods Summary

append_child(label, node)	

Methods Documentation

append_child(*label*, *node*)

1.2 NodeProcessor

class shajara.**NodeProcessor**

Bases: object

Methods Summary

final(tree)	
init(tree)	
process(node)	
result()	

Methods Documentation

final(*tree*)

init(*tree*)

process(*node*)

result()

1.3 Tree

class shajara.**Tree**(*root=None*)

Bases: object

Generic tree representation

Parameters

- **value** (*ANY*) – the value of the root node
- **label** (*ANY*) – the label of the root node

root

The root node

Type *Node*

node_stack

the stack for browsing nodes

Type array

Methods Summary

add_child(label, node)	Adds a child to the current node.
current_node()	Returns the current node
get_root()	Returns the root of the tree
process([processor])	Short summary.
select_child(label)	Select a child node of the current one, using its label.
up()	Select the parent of the current node.

Methods Documentation

add_child(*label*, *node*)

Adds a child to the current node. To browse the nodes use select_child and up

Parameters

- **label** (*str or int*) – The label of the arc

- **node** (Node) – The node to add as a child

Returns this object

Return type *Tree*

current_node()
Returns the current node

Returns The current node

Return type *Node*

get_root()
Returns the root of the tree

Returns The root of the tree if it exists or None

Return type *Node*

process(*processor=<shajara.NodeProcessor object>*)
Short summary.

Parameters **processor** (NodeProcessor) – the processor used to manipulate the tree starting from its root

Returns The result of processing, it can be None, a node, a string, etc.

Return type type

select_child(*label*)
Select a child node of the current one, using its label. Used to browsing the tree down.

Parameters **label** (*str or int*) – the label of the label of the arc

Returns this object

Return type *Tree*

up()
Select the parent of the current node. Used to browsing the tree up.

Returns this object

Return type type

CHAPTER 2

shajara.create Module

2.1 Classes

GenerateProcessor(rep)	Generates a tree given a representation using dictionaries
Node([value, label])	
NodeProcessor	

2.1.1 GenerateProcessor

class shajara.create.**GenerateProcessor**(*rep*)

Bases: *shajara.NodeProcessor*

Generates a tree given a representation using dictionaries

Parameters **rep** (*dict*) – A dictionary representing the tree

rep

Methods Summary

init(tree)	

Methods Documentation

init(*tree*)

CHAPTER 3

shajara.plot Module

3.1 Classes

GraphvizProcessor	Generates DOT representation of a tree
NodeProcessor	

3.1.1 GraphvizProcessor

class shajara.plot.**GraphvizProcessor**

Bases: *shajara.NodeProcessor*

Generates DOT representation of a tree

Methods Summary

final(tree)	
init(tree)	
result()	

Methods Documentation

final(*tree*)

init(*tree*)

result()

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