
Anchorman Documentation

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anchorman package

1.1 Subpackages

1.1.1 anchorman.generator package

Submodules

anchorman.generator.candidate module

anchorman.generator.candidate.**data_val** (*item, replaces_per_attribute*)

anchorman.generator.candidate.**elements_of_unit** (*intervaltree, unit, setting*)

Get all items / elements of the actual unit to validate.

anchorman.generator.candidate.**retrieve_hits** (*intervaltree, units, config, own_validator*)

Loop the units and validate each item in unit.

anchorman.generator.candidate.**validate** (*item, candidates, this_unit, setting, own_validator*)

Apply the rules specified in setting to the item.

Take care of candidates already validated and the items already added to this_unit.

Todo

check context of replacement: do not add links in links, or inline of overlapping elements, ... replace only one item of an entity > e.g. A. Merkel, Mum Merkel, ...

anchorman.generator.element module

anchorman.generator.element.**create_element** (*element_pattern, item, mode, markup*)

Create the element that will be inserted in the text.

anchorman.generator.element.**create_element_pattern** (*mode, markup*)

Create the basic element pattern based on mode and markup.

anchorman.generator.highlight module

anchorman.generator.highlight.**augment_highlight** (*highlight, item*)

Fill the base highlight element with data of the item.

`anchorman.generator.highlight.create_highlight (highlight_markup)`
Use format to create a base highlight element.

`anchorman.generator.tag module`

`anchorman.generator.tag.augment_bs4tag (bs4tag, item, tag_markup)`
Fill the base bs4tag element with data of the item.

`anchorman.generator.tag.create_bs4tag (tag_markup)`
Use BeautifulSoup to create a base tag element.

`anchorman.generator.text module`

`anchorman.generator.text.augment (text, to_be_applied)`
Augment the text with the elements in to be applied.

Module contents

1.1.2 `anchorman.positioner` package

Submodules

`anchorman.positioner.interval module`

`anchorman.positioner.interval.intervals (text, elements, setting)`
From the slices of elements and units create an intervaltree.

`anchorman.positioner.interval.to_intervaltree (data, t=None)`
Create an intervaltree of all elements (elements, units, ...).

`anchorman.positioner.interval.unit_intervals (intervaltree, text_unit)`
Loop the intervaltree to get the text unit interval items.

`anchorman.positioner.slices module`

`anchorman.positioner.slices.element_slices (text, elements, element_identifier)`
Get slices of all elements in text.

`anchorman.positioner.slices.unit_slices (text, text_unit)`
Get slices of the text units specified in setting.

Module contents

1.2 Submodules

1.2.1 `anchorman.configure` module

`anchorman.configure.get_config (project_conf=True)`
Load default configuration.

1.2.2 anchorman.main module

```
anchorman.main.annotate(text, elements, own_validator=[], config={'markup': {'highlight': {'pre': '${{', 'post': '}}'}, 'tag': {'attributes': ['style color:blue;cursor:pointer;', 'class anchorman'], 'value_key': 'href', 'tag': 'a', 'exclude_keys': ['score']}, 'coreferencer': {'attribute': 'token', 'value_key': 'text'}}, 'setting': {'mode': 'tag', 'element_identifier': 'entity', 'text_unit': {'name': 'html-paragraph', 'key': 'p', 'number_of_items': None}, 'longest_match_first': True, 'replaces_at_all': None, 'case_sensitive': True}})
```

Find and annotate elements in text.

Create an invaltree with elements and units of text, validate the rules to apply elements and augment the text with this result.

Parameters

- **text** (*str*) – The first parameter.
- **elements** (*list*) – It is a list of element dicts like the following: {‘fox’: {‘value’: ‘/wiki/fox’, ‘data-type’: ‘animal’}}
- **own_validator** (*list*) – A list of functions that will be applied in the validation of an element, if it will be applied in the text.
- **config** (*dict*) – Load default config from etc/ or get_config the default config andd update to your own rules.

Returns **text** – The annotated text.

Return type str

Examples

Basic example with config overwrite:

```
>>> text = 'The quick brown fox jumps over the lazy dog.'
>>> elements = [
    {'fox': {
        'value': '/wiki/fox', 'data-type': 'animal'}},
    {'dog': {
        'value': '/wiki/dog', 'data-type': 'animal'}}]
>>> cfg = get_config()
>>> cfg['setting']['replaces_at_all'] = 1
>>> print(annotate(text, elements, config=cfg))
'The quick brown <a href="/wiki/fox" data-type="animal">fox</a> jumps over the lazy dog .'
```

```
anchorman.main.clean(text, config={'markup': {'highlight': {'pre': '${{', 'post': '}}'}, 'tag': {'attributes': ['style color:blue;cursor:pointer;', 'class anchorman'], 'value_key': 'href', 'tag': 'a', 'exclude_keys': ['score']}, 'coreferencer': {'attribute': 'token', 'value_key': 'text'}}, 'setting': {'mode': 'tag', 'element_identifier': 'entity', 'text_unit': {'name': 'html-paragraph', 'key': 'p', 'number_of_items': None}, 'longest_match_first': True, 'replaces_at_all': None, 'case_sensitive': True}})
```

Remove elements from text.

Use config to identify elements.

Todo

Implement me ...clean(text .

1.2.3 anchorman.utils module

1.3 Module contents

anchorman.configure module

`anchorman.configure.get_config(project_conf=True)`
Load default configuration.

anchorman.generator package

3.1 Submodules

3.1.1 anchorman.generator.candidate module

anchorman.generator.candidate.**data_val** (*item, replaces_per_attribute*)

anchorman.generator.candidate.**elements_of_unit** (*intervaltree, unit, setting*)

Get all items / elements of the actual unit to validate.

anchorman.generator.candidate.**retrieve_hits** (*intervaltree, units, config, own_validator*)

Loop the units and validate each item in unit.

anchorman.generator.candidate.**validate** (*item, candidates, this_unit, setting, own_validator*)

Apply the rules specified in setting to the item.

Take care of candidates already validated and the items already added to this_unit.

Todo

check context of replacement: do not add links in links, or inline of overlapping elements, ... replace only one item of an entity > e.g. A. Merkel, Mum Merkel, ...

3.1.2 anchorman.generator.element module

anchorman.generator.element.**create_element** (*element_pattern, item, mode, markup*)

Create the element that will be inserted in the text.

anchorman.generator.element.**create_element_pattern** (*mode, markup*)

Create the basic element pattern based on mode and markup.

3.1.3 anchorman.generator.highlight module

anchorman.generator.highlight.**augment_highlight** (*highlight, item*)

Fill the base highlight element with data of the item.

anchorman.generator.highlight.**create_highlight** (*highlight_markup*)

Use format to create a base highlight element.

3.1.4 anchorman.generator.tag module

`anchorman.generator.tag.augment_bs4tag(bs4tag, item, tag_markup)`

Fill the base bs4tag element with data of the item.

`anchorman.generator.tag.create_bs4tag(tag_markup)`

Use BeautifulSoup to create a base tag element.

3.1.5 anchorman.generator.text module

`anchorman.generator.text.augment(text, to_be_applied)`

Augment the text with the elements in to be applied.

3.2 Module contents

anchorman.generator.candidate module

anchorman.generator.candidate.**data_val** (*item, replaces_per_attribute*)

anchorman.generator.candidate.**elements_of_unit** (*intervaltree, unit, setting*)

Get all items / elements of the actual unit to validate.

anchorman.generator.candidate.**retrieve_hits** (*intervaltree, units, config, own_validator*)

Loop the units and validate each item in unit.

anchorman.generator.candidate.**validate** (*item, candidates, this_unit, setting, own_validator*)

Apply the rules specified in setting to the item.

Take care of candidates already validated and the items already added to this_unit.

Todo

check context of replacement: do not add links in links, or inline of overlapping elements, ... replace only one item of an entity > e.g. A. Merkel, Mum Merkel, ...

anchorman.generator.element module

anchorman.generator.element.**create_element** (*element_pattern, item, mode, markup*)

Create the element that will be inserted in the text.

anchorman.generator.element.**create_element_pattern** (*mode, markup*)

Create the basic element pattern based on mode and markup.

anchorman.generator.highlight module

anchorman.generator.highlight.**augment_highlight** (*highlight, item*)

Fill the base highlight element with data of the item.

anchorman.generator.highlight.**create_highlight** (*highlight_markup*)

Use format to create a base highlight element.

anchorman.generator.tag module

`anchorman.generator.tag.augment_bs4tag(bs4tag, item, tag_markup)`

Fill the base bs4tag element with data of the item.

`anchorman.generator.tag.create_bs4tag(tag_markup)`

Use BeautifulSoup to create a base tag element.

anchorman.generator.text module

`anchorman.generator.text.augment(text, to_be_applied)`

Augment the text with the elements in to be applied.

anchorman.main module

```
anchorman.main.annotate(text, elements, own_validator=[], config={'markup': {'highlight': {'pre': '${{', 'post': '}}'}, 'tag': {'attributes': ['style color:blue;cursor:pointer;', 'class anchorman'], 'value_key': 'href', 'tag': 'a', 'exclude_keys': ['score']}, 'coreferencer': {'attribute': 'token', 'value_key': 'text'}}, 'setting': {'mode': 'tag', 'element_identifier': 'entity', 'text_unit': {'name': 'html-paragraph', 'key': 'p', 'number_of_items': None}, 'longest_match_first': True, 'replaces_at_all': None, 'case_sensitive': True}})
```

Find and annotate elements in text.

Create an invaltree with elements and units of text, validate the rules to apply elements and augment the text with this result.

Parameters

- **text (str)** – The first parameter.
- **elements (list)** – It is a list of element dicts like the following: {‘fox’: {‘value’: ‘/wiki/fox’, ‘data-type’: ‘animal’}}
- **own_validator (list)** – A list of functions that will be applied in the validation of an element, if it will be applied in the text.
- **config (dict)** – Load default config from etc/ or get_config the default config andd update to your own rules.

Returns **text** – The annotated text.

Return type str

Examples

Basic example with config overwrite:

```
>>> text = 'The quick brown fox jumps over the lazy dog.'
>>> elements = [
    {'fox': {
        'value': '/wiki/fox', 'data-type': 'animal'}},
    {'dog': {
        'value': '/wiki/dog', 'data-type': 'animal'}}]
>>> cfg = get_config()
>>> cfg['setting']['replaces_at_all'] = 1
>>> print(annotate(text, elements, config=cfg))
'The quick brown <a href="/wiki/fox" data-type="animal">fox</a> jumps over the lazy dog .'
```

```
anchorman.main.clean(text, config={'markup': {'highlight': {'pre': '${{', 'post': '}}'}, 'tag': {'attributes': ['style color:blue;cursor:pointer;', 'class anchorman'], 'value_key': 'href', 'tag': 'a', 'exclude_keys': ['score']}, 'coreferencer': {'attribute': 'token', 'value_key': 'text'}}, 'setting': {'mode': 'tag', 'element_identifier': 'entity', 'text_unit': {'name': 'html-paragraph', 'key': 'p', 'number_of_items': None}, 'longest_match_first': True, 'replaces_at_all': None, 'case_sensitive': True}})
```

Remove elements from text.

Use config to identify elements.

Todo

Implement me ...clean(text .

anchorman.positioner package

10.1 Submodules

10.1.1 anchorman.positioner.interval module

anchorman.positioner.interval.**intervals** (*text, elements, setting*)

From the slices of elements and units create an intervaltree.

anchorman.positioner.interval.**to_intervaltree** (*data, t=None*)

Create an intervaltree of all elements (elements, units, ...).

anchorman.positioner.interval.**unit_intervals** (*intervaltree, text_unit*)

Loop the intervaltree to get the text unit interval items.

10.1.2 anchorman.positioner.slices module

anchorman.positioner.slices.**element_slices** (*text, elements, element_identifier*)

Get slices of all elements in text.

anchorman.positioner.slices.**unit_slices** (*text, text_unit*)

Get slices of the text units specified in setting.

10.2 Module contents

anchorman.positioner.interval module

anchorman.positioner.interval.**intervals** (*text, elements, setting*)

From the slices of elements and units create an intervaltree.

anchorman.positioner.interval.**to_intervaltree** (*data, t=None*)

Create an intervaltree of all elements (elements, units, ...).

anchorman.positioner.interval.**unit_intervals** (*intervaltree, text_unit*)

Loop the intervaltree to get the text unit interval items.

anchorman.positioner.slices module

anchorman.positioner.slices.**element_slices** (*text, elements, element_identifier*)

Get slices of all elements in text.

anchorman.positioner.slices.**unit_slices** (*text, text_unit*)

Get slices of the text units specified in setting.

anchorman.utils module

anchorman

14.1 anchorman package

14.1.1 Subpackages

anchorman.generator package

Submodules

anchorman.generator.candidate module

anchorman.generator.candidate.**data_val** (*item, replaces_per_attribute*)
anchorman.generator.candidate.**elements_of_unit** (*intervaltree, unit, setting*)

Get all items / elements of the actual unit to validate.

anchorman.generator.candidate.**retrieve_hits** (*intervaltree, units, config, own_validator*)
Loop the units and validate each item in unit.

anchorman.generator.candidate.**validate** (*item, candidates, this_unit, setting, own_validator*)
Apply the rules specified in setting to the item.

Take care of candidates already validated and the items already added to this_unit.

Todo

check context of replacement: do not add links in links, or inline of overlapping elements, ... replace only one item of an entity > e.g. A. Merkel, Mum Merkel, ...

anchorman.generator.element module

anchorman.generator.element.**create_element** (*element_pattern, item, mode, markup*)
Create the element that will be inserted in the text.
anchorman.generator.element.**create_element_pattern** (*mode, markup*)
Create the basic element pattern based on mode and markup.

anchorman.generator.highlight module

anchorman.generator.highlight.**augment_highlight** (*highlight, item*)
Fill the base highlight element with data of the item.
anchorman.generator.highlight.**create_highlight** (*highlight_markup*)
Use format to create a base highlight element.

anchorman.generator.tag module

anchorman.generator.tag.**augment_bs4tag** (*bs4tag, item, tag_markup*)

Fill the base bs4tag element with data of the item.

anchorman.generator.tag.**create_bs4tag** (*tag_markup*)

Use BeautifulSoup to create a base tag element.

anchorman.generator.text module

anchorman.generator.text.**augment** (*text, to_be_applied*)

Augment the text with the elements in to be applied.

Module contents

anchorman.positioner package

Submodules

anchorman.positioner.interval module

anchorman.positioner.interval.**intervals** (*text, elements, setting*)

From the slices of elements and units create an intervaltree.

anchorman.positioner.interval.**to_intervaltree** (*data, t=None*)

Create an intervaltree of all elements (elements, units, ...).

anchorman.positioner.interval.**unit_intervals** (*intervaltree, text_unit*)

Loop the intervaltree to get the text unit interval items.

anchorman.positioner.slices module

anchorman.positioner.slices.**element_slices** (*text, elements, element_identifier*)

Get slices of all elements in text.

anchorman.positioner.slices.**unit_slices** (*text, text_unit*)

Get slices of the text units specified in setting.

Module contents

14.1.2 Submodules

anchorman.configure module

anchorman.configure.**get_config** (*project_conf=True*)

Load default configuration.

anchorman.main module

```
anchorman.main.annotate(text, elements, own_validator=[], config={'markup': {'highlight': {'pre': '${{', 'post': '}}'}, 'tag': {'attributes': ['style color:blue;cursor:pointer;', 'class anchorman'], 'value_key': 'href', 'tag': 'a', 'exclude_keys': ['score']}, 'coreferencer': {'attribute': 'token', 'value_key': 'text'}}, 'setting': {'mode': 'tag', 'element_identifier': 'entity', 'text_unit': {'name': 'html-paragraph', 'key': 'p', 'number_of_items': None}, 'longest_match_first': True, 'replaces_at_all': None, 'case_sensitive': True}})
```

Find and annotate elements in text.

Create an invaltree with elements and units of text, validate the rules to apply elements and augment the text with this result.

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- **text** (*str*) – The first parameter.
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- **own_validator** (*list*) – A list of functions that will be applied in the validation of an element, if it will be applied in the text.
- **config** (*dict*) – Load default config from etc/ or get_config the default config andd update to your own rules.

Returns **text** – The annotated text.

Return type str

Examples

Basic example with config overwrite:

```
>>> text = 'The quick brown fox jumps over the lazy dog.'
>>> elements = [
    {'fox': {
        'value': '/wiki/fox', 'data-type': 'animal'}},
    {'dog': {
        'value': '/wiki/dog', 'data-type': 'animal'}}]
>>> cfg = get_config()
>>> cfg['setting']['replaces_at_all'] = 1
>>> print(annotate(text, elements, config=cfg))
'The quick brown <a href="/wiki/fox" data-type="animal">fox</a> jumps over the lazy dog .'
```

```
anchorman.main.clean(text, config={'markup': {'highlight': {'pre': '${{', 'post': '}}'}, 'tag': {'attributes': ['style color:blue;cursor:pointer;', 'class anchorman'], 'value_key': 'href', 'tag': 'a', 'exclude_keys': ['score']}, 'coreferencer': {'attribute': 'token', 'value_key': 'text'}}, 'setting': {'mode': 'tag', 'element_identifier': 'entity', 'text_unit': {'name': 'html-paragraph', 'key': 'p', 'number_of_items': None}, 'longest_match_first': True, 'replaces_at_all': None, 'case_sensitive': True}})
```

Remove elements from text.

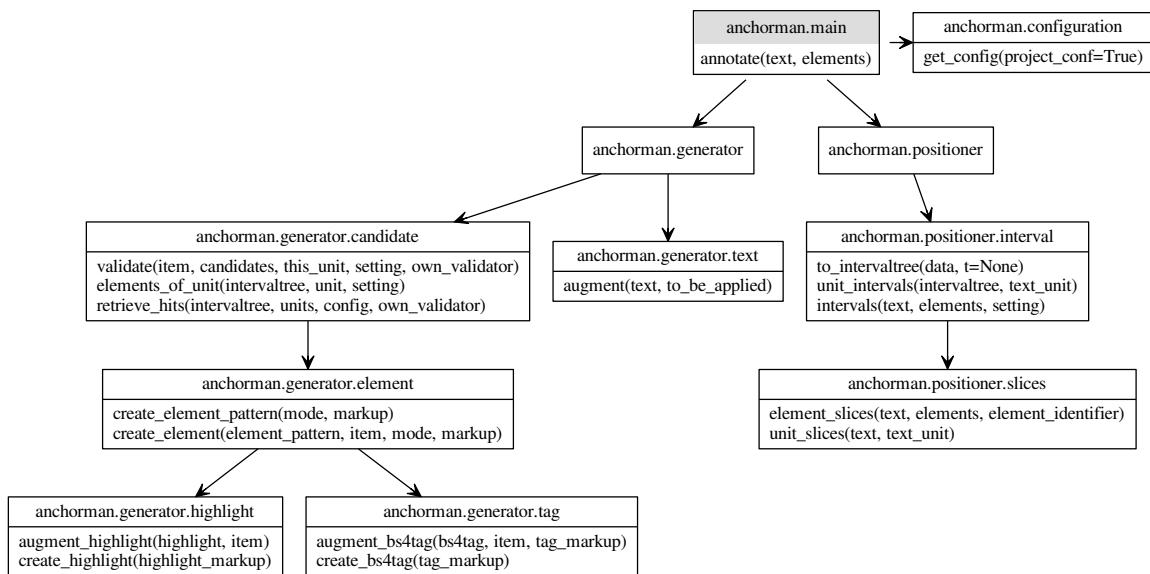
Use config to identify elements.

Todo

Implement me ...clean(text .

anchorman.utils module

14.1.3 Module contents

Uml view

Danger: Beware killer rabbits!

```

***** Module anchorman.configuration
C: 10, 0: Line too long (85/80) (line-too-long)
C: 13, 0: Line too long (86/80) (line-too-long)
***** Module anchorman.main
C: 38, 0: Line too long (112/80) (line-too-long)
W: 8, 0: Dangerous default value [] as argument (dangerous-default-value)
***** Module anchorman.utils
C: 14, 0: Line too long (121/80) (line-too-long)
C: 17, 0: Final newline missing (missing-final-newline)
***** Module anchorman.generator.candidate
C: 97, 0: Line too long (82/80) (line-too-long)
C: 5, 0: Empty function docstring (empty-docstring)
R: 12, 0: Too many local variables (18/15) (too-many-locals)
***** Module anchorman.generator.text
C: 7, 4: Invalid variable name "x" (invalid-name)
***** Module anchorman.positioner.interval
  
```

C: 6, 0: Invalid argument name "t" (invalid-name)

Report

184 statements analysed.

16.1 Statistics by type

type	number	old number	difference	%documented	%badname
module	13	13	=	30.77	0.00
class	0	0	=	0	0
method	0	0	=	0	0
function	18	17	+1.00	94.44	0.00

16.2 External dependencies

```

anchorman
  \--configuration (anchorman.main)
  \--generator
  | \--candidate (anchorman.main)
  | \--element (anchorman.generator.candidate)
  | \--highlight (anchorman.generator.element)
  | \--tag (anchorman.generator.element)
  | \--text (anchorman.main)
  \--positioner
    \--interval (anchorman.main)
bs4 (anchorman.generator.tag, anchorman.positioner.slices)
intervaltree (anchorman.positioner.interval)
yaml (anchorman.configuration)

```

16.3 Raw metrics

type	number	%	previous	difference
code	200	50.38	188	+12.00
docstring	54	13.60	57	-3.00
comment	41	10.33	72	-31.00
empty	102	25.69	108	-6.00

16.4 Duplication

	now	previous	difference
nb duplicated lines	0	0	=
percent duplicated lines	0.000	0.000	=

16.5 Messages by category

type	number	previous	difference
convention	9	10	-1.00
refactor	1	1	=
warning	1	1	=
error	0	0	=

16.6 % errors / warnings by module

module	error	warning	refactor	convention
anchorman.main	0.00	100.00	0.00	11.11
anchorman.generator.candidate	0.00	0.00	100.00	22.22
anchorman.utils	0.00	0.00	0.00	22.22
anchorman.configuration	0.00	0.00	0.00	22.22
anchorman.positioner.interval	0.00	0.00	0.00	11.11
anchorman.generator.text	0.00	0.00	0.00	11.11

16.7 Messages

message id	occurrences
line-too-long	5
invalid-name	2
too-many-locals	1
missing-final-newline	1
empty-docstring	1
dangerous-default-value	1

16.8 Global evaluation

Your code has been rated at 9.40/10 (previous run: 9.31/10, +0.09)

Todo list

Todo

check context of replacement: do not add links in links, or inline of overlapping elements, ... replace only one item of an entity > e.g. A. Merkel, Mum Merkel, ...

(The *original entry* is located in /home/docs/checkouts/readthedocs.org/user_builds/anchorman/checkouts/latest/anchorman/generator/candidate.validate, line 6.)

Todo

Implement me ...clean(text .

(The *original entry* is located in /home/docs/checkouts/readthedocs.org/user_builds/anchorman/checkouts/latest/anchorman/main.py:doctree, line 5.)

Credits and contributions

We published this at github and pypi to provide our solution to others, to get feedback and find contributers in the open source.

Thanks [Tarn Barford](#) for inspiration and first steps.

Indices and tables

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