
aws-vapor

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Contents:

1	DSL	1
1.1	Template Root	1
1.2	Elements	1
1.3	Utilities	3
2	Utility Functions	7
	Python Module Index	9

1.1 Template Root

```
class aws_vapor.dsl.Template (version: str = '2010-09-09', description: str = ")
    An AWS CloudFormation template builder.

    conditions (element: aws_vapor.dsl.Element, merge: bool = False) → aws_vapor.dsl.Element
    description (description: str) → aws_vapor.dsl.Template
    mappings (element: aws_vapor.dsl.Element, merge: bool = False) → aws_vapor.dsl.Element
    metadata (element: aws_vapor.dsl.Element, merge: bool = False) → aws_vapor.dsl.Element
    outputs (element: aws_vapor.dsl.Element, merge: bool = False) → aws_vapor.dsl.Element
    parameters (element: aws_vapor.dsl.Element, merge: bool = False) → aws_vapor.dsl.Element
    resources (element: aws_vapor.dsl.Element, merge: bool = False) → aws_vapor.dsl.Element
    to_template () → collections.OrderedDict
```

1.2 Elements

```
class aws_vapor.dsl.Element (name: str)
    This is an abstract base class of a template section.

    attributes (name: str, value: Any)
        Map name to value and return self.

    to_template (template: Dict[str, Any])
        Convert mapped key-value pairs into a top level section of an AWS CloudFormation template.

        Parameters template – A template builder.
        Returns Passed a mapping object.
```

class `aws_vapor.dsl.Metadatum` (*name: str*)

The *Metadatum* class is a subclass of *Element*, each instance of which represents details about the template.

class `aws_vapor.dsl.Parameter` (*name: str*)

The *Parameter* class is a subclass of *Element*, each instance of which passes values into your template when you create a stack.

allowed_pattern (*pattern: str*) → `aws_vapor.dsl.Parameter`

Set 'AllowedPattern' to *pattern* and return *self*.

allowed_values (*list_of_values: List[Any]*) → `aws_vapor.dsl.Parameter`

Set 'AllowedValues' to *list_of_values* and return *self*.

constraint_description (*desc: str*) → `aws_vapor.dsl.Parameter`

Set 'ConstraintDescription' to *desc* and return *self*.

default (*value: Any*) → `aws_vapor.dsl.Parameter`

Set 'Default' to *value* and return *self*.

description (*desc: str*) → `aws_vapor.dsl.Parameter`

Set 'Description' to *desc* and return *self*.

max_length (*length: int*) → `aws_vapor.dsl.Parameter`

Set 'MaxLength' to *length* and return *self*.

max_value (*value: int*) → `aws_vapor.dsl.Parameter`

Set *MaxValue* to *value* and return *self*.

min_length (*length: int*) → `aws_vapor.dsl.Parameter`

Set *MinLength* to *length* and return *self*.

min_value (*value: int*) → `aws_vapor.dsl.Parameter`

Set *MinValue* to *value* and return *self*.

no_echo () → `aws_vapor.dsl.Parameter`

Set 'NoEcho' to *true* and return *self*.

type (*name: str*) → `aws_vapor.dsl.Parameter`

Set 'Type' to *name* and return *self*.

class `aws_vapor.dsl.Mapping` (*name: str*)

The *Mapping* class is a subclass of *Element*, each instance of which matches a key to a corresponding set of named values.

add_category (*category: str*) → `aws_vapor.dsl.Mapping`

Create a new top level section of 'Mappings' and return *self*.

Create a new top level section of 'Mappings' if doesn't contain *category*, then set a current selection to *category*.

Parameters *category* – A name of a top level section.

Returns *self*.

add_item (*key: str, value: Any*) → `aws_vapor.dsl.Mapping`

Map *key* to *value* in a current selection and return *self*.

find_in_map (*top_level_key: str, second_level_key: str*) → `Dict[str, Any]`

Call *Intrinsics.find_in_map* and return its return value.

class `aws_vapor.dsl.Condition` (*name: str*)

The *Condition* class is a subclass of *Element*, each instance of which includes statements that define when a resource is created or when a property is defined.

expression (*expression: Dict[str, Any]*) → `aws_vapor.dsl.Condition`
 Set *expression* and return *self*.

to_template (*template: Dict[str, Any]*)
 Convert *self.attrs* into a top level section of an AWS CloudFormation template.

Parameters `template` – A template builder.

Returns Passed a mapping object.

class `aws_vapor.dsl.Resource` (*name: str*)

The *Resource* class is a subclass of *Element*, each instance of which declares the AWS resources that you want to include in the stack, such as an Amazon EC2 instance or an Amazon S3 bucket.

add_property (*prop: Dict[str, Any]*) → `aws_vapor.dsl.Resource`
 Add a new key-value pair to 'Properties' and return *self*.

condition (*condition: aws_vapor.dsl.Condition*) → `aws_vapor.dsl.Resource`
 Set 'Condition' to *condition* and return *self*.

depends_on (*resource: aws_vapor.dsl.Resource*) → `aws_vapor.dsl.Resource`
 Set 'DependsOn' to a name of *resource* and return *self*.

metadata (*metadata: Any*) → `aws_vapor.dsl.Resource`
 Set 'Metadata' to *metadata* and return *self*.

properties (*props: List[Dict[str, Any]]*) → `aws_vapor.dsl.Resource`
 Add a list of a new key-value pair to 'Properties' and return *self*.

Parameters `props` – A list of a key-value pair.

Returns *self*.

type (*name: str*) → `aws_vapor.dsl.Resource`
 Set 'Type' to *name* and return *self*.

class `aws_vapor.dsl.Output` (*name: str*)

The *Output* class is a subclass of *Element*, each instance of which declares output values that you can import into other stacks (to create cross-stack references), return in response (to describe stack calls), or view on the AWS CloudFormation console.

condition (*condition: aws_vapor.dsl.Condition*) → `aws_vapor.dsl.Output`

description (*desc: str*) → `aws_vapor.dsl.Output`

export (*name: str*) → `aws_vapor.dsl.Output`

value (*value: Dict[str, Any]*) → `aws_vapor.dsl.Output`

1.3 Utilities

class `aws_vapor.dsl.Attributes`

classmethod `of` (*name: str, value: Any*) → `Dict[str, Any]`

class `aws_vapor.dsl.Intrinsics`

classmethod `base64` (*value_to_encode: Any*) → `Dict[str, Any]`

classmethod `find_in_map` (*map_name_or_mapping: Union[str, _ForwardRef('Mapping')], top_level_key: str, second_level_key: str*) → `Dict[str, Any]`

```
classmethod fn_and (conditions: List[aws_vapor.dsl.Condition] = None) → Dict[str, Any]
classmethod fn_equals (value_1: Any, value_2: Any) → Dict[str, Any]
classmethod fn_if (condition_name: str, value_if_true: Any, value_if_false: Any) → Dict[str, Any]
classmethod fn_not (condition: aws_vapor.dsl.Condition) → Dict[str, Any]
classmethod fn_or (conditions: List[aws_vapor.dsl.Condition] = None) → Dict[str, Any]
classmethod get_att (logical_name_of_resource: str, attribute_name: str) → Dict[str, Any]
classmethod get_azs (region: str = "") → Dict[str, Any]
classmethod import_value (value_to_import: Any) → Dict[str, Any]
classmethod join (delimiter: str, list_of_values: List[Any]) → Dict[str, Any]
classmethod ref (logical_name_or_element: Union[str, _ForwardRef('Element')]) → Dict[str, Any]
classmethod select (index: int, list_of_objects: List[Any]) → Dict[str, Any]
classmethod sub (template: str, dict_of_parameters: Dict[str, Any] = None) → Dict[str, Any]

class aws_vapor.dsl.Pseudos

    classmethod account_id () → Dict[str, Any]
    classmethod no_value () → Dict[str, Any]
    classmethod notification_arns () → Dict[str, Any]
    classmethod region () → Dict[str, Any]
    classmethod stack_id () → Dict[str, Any]
    classmethod stack_name () → Dict[str, Any]

class aws_vapor.dsl.UserData

    classmethod from_files (files: List[Tuple[str, str]], params: Dict[str, Any]) → Dict[str, Any]
    classmethod of (values: List[Any]) → Dict[str, Any]

class aws_vapor.dsl.CfnInitMetadata

    class Authentication (name: str, authentication_type: str)

        access_key_id (value: str) → aws_vapor.dsl.CfnInitMetadata.Authentication
        buckets (list_of_values: List[str]) → aws_vapor.dsl.CfnInitMetadata.Authentication
        password (value: str) → aws_vapor.dsl.CfnInitMetadata.Authentication
        role_name (value: str) → aws_vapor.dsl.CfnInitMetadata.Authentication
        secret_key (value: str) → aws_vapor.dsl.CfnInitMetadata.Authentication
        uris (list_of_values: List[str]) → aws_vapor.dsl.CfnInitMetadata.Authentication
        username (value: str) → aws_vapor.dsl.CfnInitMetadata.Authentication

    class Config (name: str)
```



```

commands (key: str, command: str, env: Dict[str, Any] = None, cwd: str = None, test:
            str = None, ignore_errors: bool = None, wait_after_completion: int = None) →
            aws_vapor.dsl.CfnInitMetadata.Config

files (key: str, content: Union[str, typing.Dict[str, typing.Any]] = None, source: str = None,
         local_file_path: str = None, encoding: str = None, group: str = None, owner: str = None,
         mode: str = None, authentication: str = None, context: str = None, local_file_params: str
         = None) → aws_vapor.dsl.CfnInitMetadata.Config

groups (key: str, gid: int = None) → aws_vapor.dsl.CfnInitMetadata.Config

packages (package_manager: str, key: str, versions: List[str] = None) →
            aws_vapor.dsl.CfnInitMetadata.Config

services (service_manager: str, key: str, ensure_running: bool = None, enabled: bool = None,
            files: List[str] = None, sources: List[str] = None, packages: Dict[str, List[str]] = None,
            commands: List[str] = None) → aws_vapor.dsl.CfnInitMetadata.Config

sources (key: str, url: str) → aws_vapor.dsl.CfnInitMetadata.Config

users (key: str, uid: int, groups: List[str], home_dir: str) →
            aws_vapor.dsl.CfnInitMetadata.Config

class ConfigSet (name, configs: List[_ForwardRef('CfnInitMetadata.Config')])

class Init (config_or_config_sets: List[Union[_ForwardRef('CfnInitMetadata.Config'), _For-
            wardRef('CfnInitMetadata.ConfigSet')]])

classmethod of (list_of_metadata: List[Union[_ForwardRef('CfnInitMetadata.Init'), _For-
            wardRef('CfnInitMetadata.Authentication')]]) → collections.OrderedDict

```


CHAPTER 2

Utility Functions

`aws_vapor.utils.combine_user_data` (*files: List[Tuple[str, str]]*) → str

Make a multipart/* message from a file content.

Parameters **files** – Paths to a file, a content of which will be used as ‘UserData’.

Returns A multipart/* message attached a file content to.

`aws_vapor.utils.get_property_from_config_file` (*section: str, key: str, default_value: str = None*) → str

Get a property value from a config file.

Parameters

- **section** – A name of a section.
- **key** – A name of a property.
- **default_value** – A value will be returned when a property is not defined.

Returns A property value corresponding to the *key*, which is property name, in the *section*, or *default_value* if the *section* is not defined or the *key* is not defined.

`aws_vapor.utils.inject_params` (*lines: str, params: dict*) → List[str]

Replace placeholders with parameters.

Parameters

- **lines** – A file content including placeholders (`{{ ... }}`).
- **params** – A mapping a name of placeholders to a value.

Returns A file content replaced placeholders with parameters.

`aws_vapor.utils.load_from_config_file` (*config_directories: List[str] = None*) → dict

Load properties from a config file.

Parameters **config_directories** – A path to config directory having ‘config’.
If not specified, locating ‘config’ on `GLOBAL_CONFIG_DIRECTORY` and `LOCAL_CONFIG_DIRECTORY`.

Returns

A mapping of properties loaded from a config file.

example:

```
{
  'section': {
    'key1': 'value1',
    'key2': 'value2'
  }
}
```

`aws_vapor.utils.open_output_file` (*relative_file_path*: *str*) → *io.TextIOBase*
Open an output file.

Parameters **relative_file_path** – A path to an output file.

Returns A file descriptor of an output file.

`aws_vapor.utils.save_to_config_file` (*props*: *dict*, *save_on_global*: *bool* = *False*)
Save properties to a config file.

Parameters

- **props** – A mapping of properties.
- **save_on_global** – A flag whether or not a new configuration will be saved globally.

a

`aws_vapor.utils`, [7](#)

A

access_key_id() (aws_vapor.dsl.CfnInitMetadata.Authentication method), 4
account_id() (aws_vapor.dsl.Pseudos class method), 4
add_category() (aws_vapor.dsl.Mapping method), 2
add_item() (aws_vapor.dsl.Mapping method), 2
add_property() (aws_vapor.dsl.Resource method), 3
allowed_pattern() (aws_vapor.dsl.Parameter method), 2
allowed_values() (aws_vapor.dsl.Parameter method), 2
Attributes (class in aws_vapor.dsl), 3
attributes() (aws_vapor.dsl.Element method), 1
aws_vapor.utils (module), 7

B

base64() (aws_vapor.dsl.Intrinsics class method), 3
buckets() (aws_vapor.dsl.CfnInitMetadata.Authentication method), 4

C

CfnInitMetadata (class in aws_vapor.dsl), 4
CfnInitMetadata.Authentication (class in aws_vapor.dsl), 4
CfnInitMetadata.Config (class in aws_vapor.dsl), 4
CfnInitMetadata.ConfigSet (class in aws_vapor.dsl), 5
CfnInitMetadata.Init (class in aws_vapor.dsl), 5
combine_user_data() (in module aws_vapor.utils), 7
commands() (aws_vapor.dsl.CfnInitMetadata.Config method), 4
Condition (class in aws_vapor.dsl), 2
condition() (aws_vapor.dsl.Output method), 3
condition() (aws_vapor.dsl.Resource method), 3
conditions() (aws_vapor.dsl.Template method), 1
constraint_description() (aws_vapor.dsl.Parameter method), 2

D

default() (aws_vapor.dsl.Parameter method), 2
depends_on() (aws_vapor.dsl.Resource method), 3
description() (aws_vapor.dsl.Output method), 3

description() (aws_vapor.dsl.Parameter method), 2
description() (aws_vapor.dsl.Template method), 1

E

Element (class in aws_vapor.dsl), 1
export() (aws_vapor.dsl.Output method), 3
expression() (aws_vapor.dsl.Condition method), 2

F

files() (aws_vapor.dsl.CfnInitMetadata.Config method), 5
find_in_map() (aws_vapor.dsl.Intrinsics class method), 3
find_in_map() (aws_vapor.dsl.Mapping method), 2
fn_and() (aws_vapor.dsl.Intrinsics class method), 3
fn_equals() (aws_vapor.dsl.Intrinsics class method), 4
fn_if() (aws_vapor.dsl.Intrinsics class method), 4
fn_not() (aws_vapor.dsl.Intrinsics class method), 4
fn_or() (aws_vapor.dsl.Intrinsics class method), 4
from_files() (aws_vapor.dsl.UserData class method), 4

G

get_att() (aws_vapor.dsl.Intrinsics class method), 4
get_aws() (aws_vapor.dsl.Intrinsics class method), 4
get_property_from_config_file() (in module aws_vapor.utils), 7
groups() (aws_vapor.dsl.CfnInitMetadata.Config method), 5

I

import_value() (aws_vapor.dsl.Intrinsics class method), 4
inject_params() (in module aws_vapor.utils), 7
Intrinsics (class in aws_vapor.dsl), 3

J

join() (aws_vapor.dsl.Intrinsics class method), 4

L

load_from_config_file() (in module aws_vapor.utils), 7

M

Mapping (class in aws_vapor.dsl), 2
mappings() (aws_vapor.dsl.Template method), 1
max_length() (aws_vapor.dsl.Parameter method), 2
max_value() (aws_vapor.dsl.Parameter method), 2
metadata() (aws_vapor.dsl.Resource method), 3
metadata() (aws_vapor.dsl.Template method), 1
Metadatum (class in aws_vapor.dsl), 1
min_length() (aws_vapor.dsl.Parameter method), 2
min_value() (aws_vapor.dsl.Parameter method), 2

N

no_echo() (aws_vapor.dsl.Parameter method), 2
no_value() (aws_vapor.dsl.Pseudos class method), 4
notification_arns() (aws_vapor.dsl.Pseudos class method), 4

O

of() (aws_vapor.dsl.Attributes class method), 3
of() (aws_vapor.dsl.CfnInitMetadata class method), 5
of() (aws_vapor.dsl.UserData class method), 4
open_output_file() (in module aws_vapor.utils), 8
Output (class in aws_vapor.dsl), 3
outputs() (aws_vapor.dsl.Template method), 1

P

packages() (aws_vapor.dsl.CfnInitMetadata.Config method), 5
Parameter (class in aws_vapor.dsl), 2
parameters() (aws_vapor.dsl.Template method), 1
password() (aws_vapor.dsl.CfnInitMetadata.Authentication method), 4
properties() (aws_vapor.dsl.Resource method), 3
Pseudos (class in aws_vapor.dsl), 4

R

ref() (aws_vapor.dsl.Intrinsics class method), 4
region() (aws_vapor.dsl.Pseudos class method), 4
Resource (class in aws_vapor.dsl), 3
resources() (aws_vapor.dsl.Template method), 1
role_name() (aws_vapor.dsl.CfnInitMetadata.Authentication method), 4

S

save_to_config_file() (in module aws_vapor.utils), 8
secret_key() (aws_vapor.dsl.CfnInitMetadata.Authentication method), 4
select() (aws_vapor.dsl.Intrinsics class method), 4
services() (aws_vapor.dsl.CfnInitMetadata.Config method), 5
sources() (aws_vapor.dsl.CfnInitMetadata.Config method), 5
stack_id() (aws_vapor.dsl.Pseudos class method), 4

stack_name() (aws_vapor.dsl.Pseudos class method), 4
sub() (aws_vapor.dsl.Intrinsics class method), 4

T

Template (class in aws_vapor.dsl), 1
to_template() (aws_vapor.dsl.Condition method), 3
to_template() (aws_vapor.dsl.Element method), 1
to_template() (aws_vapor.dsl.Template method), 1
type() (aws_vapor.dsl.Parameter method), 2
type() (aws_vapor.dsl.Resource method), 3

U

uris() (aws_vapor.dsl.CfnInitMetadata.Authentication method), 4
UserData (class in aws_vapor.dsl), 4
username() (aws_vapor.dsl.CfnInitMetadata.Authentication method), 4
users() (aws_vapor.dsl.CfnInitMetadata.Config method), 5

V

value() (aws_vapor.dsl.Output method), 3