# yamllint

Release 1.32.0

# Contents

1	Scree	enshot	3			
2	Table of contents					
	2.1	Quickstart	5			
	2.2	Configuration	6			
	2.3	Rules	11			
	2.4	Disable with comments	39			
	2.5	Development	41			
	2.6	Integration with text editors	41			
	2.7	Integration with other software	42			
Ру	thon I	Module Index	45			
In	dex		47			

A linter for YAML files.

yamllint does not only check for syntax validity, but for weirdnesses like key repetition and cosmetic problems such as lines length, trailing spaces, indentation, etc.

Contents 1

2 Contents

# CHAPTER 1

Screenshot

```
> ~ > yamllint file.yml other-file.yaml
file.yml
 1:4
                     trailing spaces (trailing-spaces)
 4:4
                     wrong indentation: expected 4 but found 3 (indentation)
                     duplication of key "id-00042" in mapping (key-duplicates)
 5:4
 6:6
                     comment not indented like content (comments-indentation)
            warning
 12:6
                     too many spaces after hyphen (hyphens)
 15:12
                     too many spaces before comma
                                                   (commas)
<u>other-file.yaml</u>
                     missing document start "---" (document-start)
  1:1
            warning
 6:81
                     line too long (87 > 80 characters) (line-length)
 10:1
                     too many blank lines (4 > 2)
                                                   (empty-lines)
  11:4
                     too many spaces inside braces
                                                    (braces)
```

Note: The default output format is inspired by eslint, a great linting tool for Javascript.

# CHAPTER 2

Table of contents

#### 2.1 Quickstart

#### 2.1.1 Installing yamllint

On Fedora / CentOS (note: EPEL is required on CentOS):

sudo dnf install yamllint

On Debian 8+ / Ubuntu 16.04+:

sudo apt-get install yamllint

On Mac OS 10.11+:

brew install yamllint

On FreeBSD:

pkg install py36-yamllint

On OpenBSD:

doas pkg\_add py3-yamllint

Alternatively using pip, the Python package manager:

pip install --user yamllint

If you prefer installing from source, you can run, from the source directory:

python -m build pip install --user dist/yamllint-\*.tar.gz

#### 2.1.2 Running yamllint

Basic usage:

```
yamllint file.yml other-file.yaml
```

You can also lint all YAML files in a whole directory:

```
yamllint .
```

Or lint a YAML stream from standard input:

```
echo -e 'this: is\nvalid: YAML' | yamllint -
```

The output will look like (colors are not displayed here):

```
file.yml
  1:4
            error trailing spaces (trailing-spaces)
           error wrong indentation: expected 4 but found 3 (indentation) error duplication of key "id-00042" in mapping (key-duplicates)
  4:4
  5:4
  6:6
          warning comment not indented like content (comments-indentation)
          error too many spaces after hyphen (hyphens)
  12:6
  15:12 error too many spaces before comma (commas)
other-file.yaml
        warning missing document start "---" (document-start)
  6:81
           error line too long (87 > 80 characters) (line-length)
  10:1
          error too many blank lines (4 > 2) (empty-lines)
           error too many spaces inside braces (braces)
  11:4
```

By default, the output of yamllint is colored when run from a terminal, and pure text in other cases. Add the -f standard arguments to force non-colored output. Use the -f colored arguments to force colored output.

Add the -f parsable arguments if you need an output format parsable by a machine (for instance for *syntax highlighting in text editors*). The output will then look like:

```
file.yml:6:2: [warning] missing starting space in comment (comments)
file.yml:57:1: [error] trailing spaces (trailing-spaces)
file.yml:60:3: [error] wrong indentation: expected 4 but found 2 (indentation)
```

If you have a custom linting configuration file (see *how to configure yamllint*), it can be passed to yamllint using the −c option:

```
yamllint -c ~/myconfig file.yaml
```

**Note:** If you have a .yamllint file in your working directory, it will be automatically loaded as configuration by yamllint.

## 2.2 Configuration

yamllint uses a set of *rules* to check source files for problems. Each rule is independent from the others, and can be enabled, disabled or tweaked. All these settings can be gathered in a configuration file.

To use a custom configuration file, use the -c option:

```
yamllint -c /path/to/myconfig file-to-lint.yaml
```

If  $\neg c$  is not provided, yamllint will look for a configuration file in the following locations (by order of preference):

- a file named .yamllint, .yamllint.yaml, or .yamllint.yml in the current working directory, or a parent directory (the search for this file is terminated at the user's home or filesystem root)
- a filename referenced by \$YAMLLINT\_CONFIG\_FILE, if set
- a file named \$XDG\_CONFIG\_HOME/yamllint/config or ~/.config/yamllint/config, if present

Finally if no config file is found, the default configuration is applied.

#### 2.2.1 Default configuration

Unless told otherwise, yamllint uses its default configuration:

```
yaml-files:
 - '*.yaml'
  - '*.yml'
  - '.yamllint'
rules:
  anchors: enable
 braces: enable
 brackets: enable
  colons: enable
  commas: enable
  comments:
   level: warning
  comments-indentation:
   level: warning
  document-end: disable
  document-start:
   level: warning
  empty-lines: enable
  empty-values: disable
  float-values: disable
  hyphens: enable
  indentation: enable
  key-duplicates: enable
  key-ordering: disable
  line-length: enable
  new-line-at-end-of-file: enable
  new-lines: enable
  octal-values: disable
  quoted-strings: disable
  trailing-spaces: enable
  truthy:
    level: warning
```

Details on rules can be found on the rules page.

There is another pre-defined configuration named relaxed. As its name suggests, it is more tolerant:

2.2. Configuration 7

```
extends: default
rules:
 braces:
   level: warning
   max-spaces-inside: 1
 brackets:
   level: warning
   max-spaces-inside: 1
  colons:
    level: warning
  commas:
   level: warning
  comments: disable
  comments-indentation: disable
  document-start: disable
  empty-lines:
   level: warning
  hyphens:
   level: warning
  indentation:
   level: warning
   indent-sequences: consistent
  line-length:
    level: warning
    allow-non-breakable-inline-mappings: true
  truthy: disable
```

It can be chosen using:

```
yamllint -d relaxed file.yml
```

#### 2.2.2 Extending the default configuration

When writing a custom configuration file, you don't need to redefine every rule. Just extend the default configuration (or any already-existing configuration file).

For instance, if you just want to disable the comments-indentation rule, your file could look like this:

```
# This is my first, very own configuration file for yamllint!
# It extends the default conf by adjusting some options.
extends: default
rules:
   comments-indentation: disable # don't bother me with this rule
```

Similarly, if you want to set the line-length rule as a warning and be less strict on block sequences indentation:

```
extends: default

rules:
  # 80 chars should be enough, but don't fail if a line is longer
  line-length:
```

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#### 2.2.3 Custom configuration without a config file

It is possible – although not recommended – to pass custom configuration options to yamllint with the –d (short for –-config-data) option.

Its content can either be the name of a pre-defined conf (example: default or relaxed) or a serialized YAML object describing the configuration.

For instance:

```
yamllint -d "{extends: relaxed, rules: {line-length: {max: 120}}}" file.yaml
```

#### 2.2.4 Errors and warnings

Problems detected by yamllint can be raised either as errors or as warnings. The CLI will output them (with different colors when using the colored output format, or auto when run from a terminal).

By default the script will exit with a return code 1 *only when* there is one or more error(s).

However if strict mode is enabled with the -s (or --strict) option, the return code will be:

- 0 if no errors or warnings occur
- 1 if one or more errors occur
- 2 if no errors occur, but one or more warnings occur

If the script is invoked with the --no-warnings option, it won't output warning level problems, only error level ones.

#### 2.2.5 YAML files extensions

To configure what yamllint should consider as YAML files when listing directories, set yaml-files configuration option. The default is:

```
yaml-files:
    - '*.yaml'
    - '*.yml'
    - '.yamllint'
```

The same rules as for ignoring paths apply (.gitignore-style path pattern, see below).

If you need to know the exact list of files that yamllint would process, without really linting them, you can use --list-files:

2.2. Configuration 9

```
yamllint --list-files .
```

#### 2.2.6 Ignoring paths

It is possible to exclude specific files or directories, so that the linter doesn't process them. They can be provided either as a list of paths, or as a bulk string.

You can either totally ignore files (they won't be looked at):

```
extends: default

ignore: |
   /this/specific/file.yaml
   all/this/directory/
   *.template.yaml

# or:

ignore:
   - /this/specific/file.yaml
   - all/this/directory/
   - '*.template.yaml'
```

or ignore paths only for specific rules:

Note that this .gitignore-style path pattern allows complex path exclusion/inclusion, see the pathspec README file for more details. Here is a more complex example:

```
# For all rules
ignore: |
    *.dont-lint-me.yaml
    /bin/
    !/bin/*.lint-me-anyway.yaml

extends: default

rules:
    key-duplicates:
    ignore: |
        generated
```

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```
*.template.yaml
trailing-spaces:
  ignore: |
  *.ignore-trailing-spaces.yaml
  ascii-art/*
```

You can also use the .gitignore file (or any list of files) through:

```
ignore-from-file: .gitignore
```

or:

```
ignore-from-file: [.gitignore, .yamlignore]
```

**Note:** However, this is mutually exclusive with the ignore key.

If you need to know the exact list of files that yamllint would process, without really linting them, you can use --list-files:

```
yamllint --list-files .
```

#### 2.2.7 Setting the locale

It is possible to set the locale option globally. This is passed to Python's locale.setlocale, so an empty string "" will use the system default locale, while e.g. "en\_US.UTF-8" will use that.

Currently this only affects the key-ordering rule. The default will order by Unicode code point number, while locales will sort case and accents properly as well.

```
extends: default
locale: en_US.UTF-8
```

#### 2.3 Rules

When linting a document with yamllint, a series of rules (such as line-length, trailing-spaces, etc.) are checked against.

A *configuration file* can be used to enable or disable these rules, to set their level (*error* or *warning*), but also to tweak their options.

This page describes the rules and their options.

#### List of rules

- anchors
- braces
- brackets

- colons
- commas
- comments
- comments-indentation
- document-end
- document-start
- empty-lines
- empty-values
- float-values
- hyphens
- indentation
- key-duplicates
- key-ordering
- line-length
- new-line-at-end-of-file
- new-lines
- octal-values
- quoted-strings
- trailing-spaces
- truthy

#### 2.3.1 anchors

Use this rule to report duplicated anchors and aliases referencing undeclared anchors.

#### **Options**

- Set forbid-undeclared-aliases to true to avoid aliases that reference an anchor that hasn't been declared (either not declared at all, or declared later in the document).
- Set forbid-duplicated-anchors to true to avoid duplications of a same anchor.
- Set forbid-unused-anchors to true to avoid anchors being declared but not used anywhere in the YAML document via alias.

#### Default values (when enabled)

```
rules:
    anchors:
    forbid-undeclared-aliases: true
    forbid-duplicated-anchors: false
    forbid-unused-anchors: false
```

1. With anchors: {forbid-undeclared-aliases: true}
the following code snippet would PASS:

```
---
- &anchor
foo: bar
- *anchor
```

the following code snippet would FAIL:

```
---
- &anchor
foo: bar
- *unknown
```

the following code snippet would FAIL:

```
---
- &anchor
foo: bar
- <<: *unknown
extra: value
```

2. With anchors: {forbid-duplicated-anchors: true} the following code snippet would PASS:

```
---
- &anchor1 Foo Bar
- &anchor2 [item 1, item 2]
```

the following code snippet would **FAIL**:

```
---
- &anchor Foo Bar
- &anchor [item 1, item 2]
```

 $\textbf{3. With} \,\, \texttt{anchors:} \quad \{ \, \texttt{forbid-unused-anchors:} \quad \, \texttt{true} \, \}$ 

the following code snippet would PASS:

```
---
- &anchor
foo: bar
- *anchor
```

the following code snippet would FAIL:

```
---
- &anchor
foo: bar
- items:
- item1
- item2
```

#### 2.3.2 braces

Use this rule to control the use of flow mappings or number of spaces inside braces ({ and }).

#### **Options**

- forbid is used to forbid the use of flow mappings which are denoted by surrounding braces ({ and }). Use true to forbid the use of flow mappings completely. Use non-empty to forbid the use of all flow mappings except for empty ones.
- min-spaces-inside defines the minimal number of spaces required inside braces.
- max-spaces-inside defines the maximal number of spaces allowed inside braces.
- min-spaces-inside-empty defines the minimal number of spaces required inside empty braces.
- max-spaces-inside-empty defines the maximal number of spaces allowed inside empty braces.

#### Default values (when enabled)

```
rules:
    braces:
    forbid: false
    min-spaces-inside: 0
    max-spaces-inside = 0
    min-spaces-inside-empty: -1
    max-spaces-inside-empty: -1
```

#### **Examples**

With braces: {forbid: true}
 the following code snippet would PASS:

```
object:
key1: 4
key2: 8
```

the following code snippet would FAIL:

```
object: { key1: 4, key2: 8 }
```

2. With braces: {forbid: non-empty} the following code snippet would PASS:

```
object: {}
```

the following code snippet would FAIL:

```
object: { key1: 4, key2: 8 }
```

3. With braces: {min-spaces-inside: 0, max-spaces-inside: 0} the following code snippet would **PASS**:

```
object: {key1: 4, key2: 8}
```

the following code snippet would **FAIL**:

```
object: { key1: 4, key2: 8 }
```

4. With braces: {min-spaces-inside: 1, max-spaces-inside: 3}

the following code snippet would **PASS**:

```
object: { key1: 4, key2: 8 }
```

the following code snippet would **PASS**:

```
object: { key1: 4, key2: 8 }
```

the following code snippet would **FAIL**:

```
object: { key1: 4, key2: 8 }
```

the following code snippet would FAIL:

```
object: {key1: 4, key2: 8 }
```

5. With braces: {min-spaces-inside-empty: 0, max-spaces-inside-empty: 0} the following code snippet would PASS:

```
object: {}
```

the following code snippet would FAIL:

```
object: { }
```

6. With braces: {min-spaces-inside-empty: 1, max-spaces-inside-empty: -1}
the following code snippet would PASS:

```
object: { }
```

the following code snippet would **FAIL**:

```
object: {}
```

#### 2.3.3 brackets

Use this rule to control the use of flow sequences or the number of spaces inside brackets ([ and ]).

#### **Options**

- forbid is used to forbid the use of flow sequences which are denoted by surrounding brackets ([ and ]). Use true to forbid the use of flow sequences completely. Use non-empty to forbid the use of all flow sequences except for empty ones.
- $\bullet$   $\mbox{min-spaces-inside}$  defines the minimal number of spaces required inside brackets.

- max-spaces-inside defines the maximal number of spaces allowed inside brackets.
- min-spaces-inside-empty defines the minimal number of spaces required inside empty brackets.
- max-spaces-inside-empty defines the maximal number of spaces allowed inside empty brackets.

#### Default values (when enabled)

```
rules:
    brackets:
    forbid: false
    min-spaces-inside: 0
    max-spaces-inside 0
    min-spaces-inside-empty: -1
    max-spaces-inside-empty: -1
```

#### **Examples**

1. With brackets: {forbid: true}
the following code snippet would PASS:

```
object:
- 1
- 2
- abc
```

the following code snippet would FAIL:

```
object: [ 1, 2, abc ]
```

2. With brackets: {forbid: non-empty}

the following code snippet would **PASS**:

```
object: []
```

the following code snippet would **FAIL**:

```
object: [ 1, 2, abc ]
```

3. With brackets: {min-spaces-inside: 0, max-spaces-inside: 0} the following code snippet would PASS:

```
object: [1, 2, abc]
```

the following code snippet would FAIL:

```
object: [ 1, 2, abc ]
```

4. With brackets: {min-spaces-inside: 1, max-spaces-inside: 3} the following code snippet would PASS:

```
object: [ 1, 2, abc ]
```

the following code snippet would **PASS**:

```
object: [ 1, 2, abc ]
```

the following code snippet would **FAIL**:

```
object: [ 1, 2, abc ]
```

the following code snippet would **FAIL**:

```
object: [1, 2, abc ]
```

5. With brackets: {min-spaces-inside-empty: 0, max-spaces-inside-empty: 0} the following code snippet would PASS:

```
object: []
```

the following code snippet would FAIL:

```
object: [ ]
```

6. With brackets: {min-spaces-inside-empty: 1, max-spaces-inside-empty: -1} the following code snippet would **PASS**:

```
object: [ ]
```

the following code snippet would FAIL:

```
object: []
```

#### **2.3.4 colons**

Use this rule to control the number of spaces before and after colons (:).

#### **Options**

- max-spaces-before defines the maximal number of spaces allowed before colons (use -1 to disable).
- max-spaces-after defines the maximal number of spaces allowed after colons (use -1 to disable).

#### **Default values (when enabled)**

```
rules:
   colons:
    max-spaces-before: 0
   max-spaces-after: 1
```

#### **Examples**

1. With colons: {max-spaces-before: 0, max-spaces-after: 1}
the following code snippet would PASS:

```
object:
- a
- b
key: value
```

2. With colons: {max-spaces-before: 1}

the following code snippet would PASS:

```
object:
- a
- b
```

the following code snippet would FAIL:

```
object :
- a
- b
```

3. With colons: {max-spaces-after: 2}

the following code snippet would **PASS**:

```
first: 1
second: 2
third: 3
```

the following code snippet would **FAIL**:

```
first: 1
2nd: 2
third: 3
```

#### **2.3.5** commas

Use this rule to control the number of spaces before and after commas (, ).

#### **Options**

- max-spaces-before defines the maximal number of spaces allowed before commas (use -1 to disable).
- min-spaces-after defines the minimal number of spaces required after commas.
- max-spaces-after defines the maximal number of spaces allowed after commas (use -1 to disable).

#### Default values (when enabled)

```
rules:
    commas:
        max-spaces-before: 0
        min-spaces-after: 1
        max-spaces-after: 1
```

1. With commas: {max-spaces-before: 0}
the following code snippet would PASS:

```
strange var:
[10, 20, 30, {x: 1, y: 2}]
```

the following code snippet would **FAIL**:

```
strange var:
[10, 20 , 30, {x: 1, y: 2}]
```

2. With commas: {max-spaces-before: 2}

```
the following code snippet would PASS:
```

```
strange var:
[10 , 20 , 30, {x: 1 , y: 2}]
```

3. With commas:  $\{\text{max-spaces-before:} -1\}$ 

the following code snippet would **PASS**:

4. With commas: {min-spaces-after: 1, max-spaces-after: 1}
the following code snippet would PASS:

```
strange var:
[10, 20, 30, {x: 1, y: 2}]
```

the following code snippet would FAIL:

```
strange var:
[10, 20,30, {x: 1, y: 2}]
```

5. With commas: {min-spaces-after: 1, max-spaces-after: 3} the following code snippet would PASS:

```
strange var:
[10, 20, 30, {x: 1, y: 2}]
```

6. With commas: {min-spaces-after: 0, max-spaces-after: 1}
the following code snippet would PASS:

```
strange var:
[10, 20,30, {x: 1, y: 2}]
```

#### 2.3.6 comments

Use this rule to control the position and formatting of comments.

#### **Options**

- Use require-starting-space to require a space character right after the #. Set to true to enable, false to disable.
- Use ignore-shebangs to ignore a shebang at the beginning of the file when require-starting-space is set.
- min-spaces-from-content is used to visually separate inline comments from content. It defines the minimal required number of spaces between a comment and its preceding content.

#### Default values (when enabled)

```
rules:
    comments:
    require-starting-space: true
    ignore-shebangs: true
    min-spaces-from-content: 2
```

#### **Examples**

1. With comments: {require-starting-space: true}
the following code snippet would PASS:

```
# This sentence
# is a block comment
```

the following code snippet would **PASS**:

the following code snippet would **FAIL**:

```
#This sentence
#is a block comment
```

2. With comments: {min-spaces-from-content: 2}

the following code snippet would PASS:

```
x = 2 ^127 - 1 # Mersenne prime number
```

the following code snippet would **FAIL**:

```
x = 2 ^ 127 - 1 # Mersenne prime number
```

#### 2.3.7 comments-indentation

Use this rule to force comments to be indented like content.

With comments-indentation: { }
 the following code snippet would PASS:

```
# Fibonacci
[0, 1, 1, 2, 3, 5]
```

the following code snippet would **FAIL**:

```
# Fibonacci
[0, 1, 1, 2, 3, 5]
```

the following code snippet would **PASS**:

```
list:
- 2
- 3
# - 4
- 5
```

the following code snippet would FAIL:

```
list:
    - 2
    - 3
# - 4
    - 5
```

the following code snippet would **PASS**:

```
# This is the first object
obj1:
   - item A
   # - item B
# This is the second object
obj2: []
```

the following code snippet would **PASS**:

```
# This sentence
# is a block comment
```

the following code snippet would **FAIL**:

```
# This sentence
# is a block comment
```

#### 2.3.8 document-end

Use this rule to require or forbid the use of document end marker (...).

#### **Options**

• Set present to true when the document end marker is required, or to false when it is forbidden.

#### Default values (when enabled)

```
rules:
   document-end:
    present: true
```

#### **Examples**

1. With document-end: {present: true}
the following code snippet would PASS:

```
this:
   is: [a, document]
...
---
- this
- is: another one
...
```

the following code snippet would FAIL:

```
this:
is: [a, document]
---
this
-is: another one
...
```

2. With document-end: {present: false}

the following code snippet would PASS:

```
this:
is: [a, document]
---
- this
- is: another one
```

the following code snippet would **FAIL**:

```
this:
   is: [a, document]
...
---
- this
- is: another one
```

#### 2.3.9 document-start

Use this rule to require or forbid the use of document start marker (---).

#### **Options**

• Set present to true when the document start marker is required, or to false when it is forbidden.

#### Default values (when enabled)

```
rules:
   document-start:
    present: true
```

#### **Examples**

1. With document-start: {present: true}
the following code snippet would PASS:

```
this:
   is: [a, document]
---
- this
- is: another one
```

the following code snippet would **FAIL**:

```
this:
is: [a, document]
---
- this
- is: another one
```

2. With document-start: {present: false}

the following code snippet would **PASS**:

```
this:
is: [a, document]
...
```

the following code snippet would FAIL:

```
this:
is: [a, document]
...
```

### 2.3.10 empty-lines

Use this rule to set a maximal number of allowed consecutive blank lines.

#### **Options**

• max defines the maximal number of empty lines allowed in the document.

- max-start defines the maximal number of empty lines allowed at the beginning of the file. This option takes precedence over max.
- max-end defines the maximal number of empty lines allowed at the end of the file. This option takes precedence over max.

#### Default values (when enabled)

```
rules:
    empty-lines:
    max: 2
    max-start: 0
    max-end: 0
```

#### **Examples**

With empty-lines: {max: 1}
 the following code snippet would PASS:

```
- foo:
- 1
- 2
- bar: [3, 4]
```

the following code snippet would **FAIL**:

```
- foo:
- 1
- 2
- bar: [3, 4]
```

#### 2.3.11 empty-values

Use this rule to prevent nodes with empty content, that implicitly result in null values.

#### **Options**

- Use forbid-in-block-mappings to prevent empty values in block mappings.
- Use forbid-in-flow-mappings to prevent empty values in flow mappings.

#### Default values (when enabled)

```
rules:
    empty-values:
        forbid-in-block-mappings: true
        forbid-in-flow-mappings: true
```

1. With empty-values: {forbid-in-block-mappings: true}
the following code snippets would PASS:

```
some-mapping:
   sub-element: correctly indented
```

```
explicitly-null: null
```

the following code snippets would FAIL:

```
some-mapping:
sub-element: incorrectly indented
```

```
implicitly-null:
```

2. With empty-values: {forbid-in-flow-mappings: true}

the following code snippet would **PASS**:

```
{prop: null} {a: 1, b: 2, c: 3}
```

the following code snippets would **FAIL**:

```
{prop: }
```

```
{a: 1, b:, c: 3}
```

#### 2.3.12 float-values

Use this rule to limit the permitted values for floating-point numbers. YAML permits three classes of float expressions: approximation to real numbers, positive and negative infinity and "not a number".

#### **Options**

- Use require-numeral-before-decimal to require floats to start with a numeral (ex 0.0 instead of .0).
- Use forbid-scientific-notation to forbid scientific notation.
- Use forbid-nan to forbid NaN (not a number) values.
- Use forbid-inf to forbid infinite values.

#### Default values (when enabled)

```
rules:
    float-values:
        forbid-inf: false
        forbid-nan: false
        forbid-scientific-notation: false
        require-numeral-before-decimal: false
```

1. With float-values: {require-numeral-before-decimal: true}
the following code snippets would PASS:

```
anemometer:
  angle: 0.0
```

the following code snippets would FAIL:

```
anemometer:
angle: .0
```

2. With float-values: {forbid-scientific-notation: true}

the following code snippets would **PASS**:

```
anemometer:
angle: 0.00001
```

the following code snippets would FAIL:

```
anemometer:
angle: 10e-6
```

3. With float-values: {forbid-nan: true}

the following code snippets would FAIL:

```
anemometer:
angle: .NaN
```

1. With float-values: {forbid-inf: true}
the following code snippets would FAIL:

```
anemometer:
  angle: .inf
```

#### **2.3.13** hyphens

Use this rule to control the number of spaces after hyphens (–).

#### **Options**

• max-spaces-after defines the maximal number of spaces allowed after hyphens.

#### Default values (when enabled)

```
rules:
   hyphens:
   max-spaces-after: 1
```

1. With hyphens: {max-spaces-after: 1}
the following code snippet would PASS:

```
- first list:
    - a
    - b
- - 1
    - 2
    - 3
```

the following code snippet would FAIL:

```
- first list:
    - a
    - b
```

the following code snippet would **FAIL**:

```
- - 1
- 2
- 3
```

2. With hyphens: {max-spaces-after: 3}

the following code snippet would **PASS**:

```
- key
- key2
- key42
```

the following code snippet would **FAIL**:

```
- key
- key2
- key42
```

#### 2.3.14 indentation

Use this rule to control the indentation.

#### **Options**

- spaces defines the indentation width, in spaces. Set either to an integer (e.g. 2 or 4, representing the number of spaces in an indentation level) or to consistent to allow any number, as long as it remains the same within the file.
- indent-sequences defines whether block sequences should be indented or not (when in a mapping, this indentation is not mandatory some people perceive the as part of the indentation). Possible values: true, false, whatever and consistent consistent requires either all block sequences to be indented, or none to be. whatever means either indenting or not indenting individual block sequences is OK.
- check-multi-line-strings defines whether to lint indentation in multi-line strings. Set to true to enable, false to disable.

#### Default values (when enabled)

```
rules:
   indentation:
    spaces: consistent
   indent-sequences: true
    check-multi-line-strings: false
```

#### **Examples**

1. With indentation: {spaces: 1}

the following code snippet would **PASS**:

```
history:
- name: Unix
date: 1969
- name: Linux
date: 1991
nest:
recurse:
- haystack:
needle
```

2. With indentation: {spaces: 4}

the following code snippet would **PASS**:

```
history:
- name: Unix
date: 1969
- name: Linux
date: 1991
nest:
recurse:
- haystack:
needle
```

#### the following code snippet would FAIL:

```
history:
- name: Unix
date: 1969
- name: Linux
date: 1991
nest:
recurse:
- haystack:
needle
```

3. With indentation: {spaces: consistent}

the following code snippet would **PASS**:

```
history:
- name: Unix
date: 1969
```

(continues on next page)

(continued from previous page)

```
- name: Linux
date: 1991
nest:
recurse:
- haystack:
needle
```

the following code snippet would FAIL:

```
some:
Russian:
dolls
```

4. With indentation: {spaces: 2, indent-sequences: false}
the following code snippet would PASS:

```
list:
- flying
- spaghetti
- monster
```

the following code snippet would **FAIL**:

```
list:
- flying
- spaghetti
- monster
```

5. With indentation: {spaces: 2, indent-sequences: whatever}

```
the following code snippet would PASS:
```

```
list:
- flying:
- spaghetti
- monster
- not flying:
- spaghetti
- sauce
```

6. With indentation: {spaces: 2, indent-sequences: consistent}
the following code snippet would PASS:

```
- flying:
    - spaghetti
    - monster
- not flying:
    - spaghetti
    - sauce
```

the following code snippet would **FAIL**:

```
- flying:
- spaghetti
- monster
```

(continues on next page)

(continued from previous page)

```
- not flying:
- spaghetti
- sauce
```

7. With indentation: {spaces: 4, check-multi-line-strings: true}

the following code snippet would **PASS**:

```
Blaise Pascal:

Je vous écris une longue lettre parce que
je n'ai pas le temps d'en écrire une courte.
```

the following code snippet would **PASS**:

```
Blaise Pascal: Je vous écris une longue lettre parce que je n'ai pas le temps d'en écrire une courte.
```

the following code snippet would **FAIL**:

```
Blaise Pascal: Je vous écris une longue lettre parce que je n'ai pas le temps d'en écrire une courte.
```

the following code snippet would **FAIL**:

```
C code:
    void main() {
        printf("foo");
    }
```

the following code snippet would **PASS**:

```
C code:
    void main() {
    printf("bar");
    }
```

#### 2.3.15 key-duplicates

Use this rule to prevent multiple entries with the same key in mappings.

#### **Examples**

1. With key-duplicates: {}

the following code snippet would **PASS**:

```
- key 1: v
key 2: val
key 3: value
- {a: 1, b: 2, c: 3}
```

the following code snippet would FAIL:

```
- key 1: v
key 2: val
key 1: value
```

the following code snippet would FAIL:

```
- {a: 1, b: 2, b: 3}
```

the following code snippet would FAIL:

```
duplicated key: 1
"duplicated key": 2

other duplication: 1
? >-
    other
    duplication
: 2
```

#### 2.3.16 key-ordering

Use this rule to enforce alphabetical ordering of keys in mappings. The sorting order uses the Unicode code point number as a default. As a result, the ordering is case-sensitive and not accent-friendly (see examples below). This can be changed by setting the global locale option. This allows one to sort case and accents properly.

#### **Examples**

1. With key-ordering:  $\{\}$ 

the following code snippet would **PASS**:

```
- key 1: v
key 2: val
key 3: value
- {a: 1, b: 2, c: 3}
- T-shirt: 1
  T-shirts: 2
  t-shirt: 3
  t-shirts: 4
- hair: true
hais: true
hais: true
hais: true
```

the following code snippet would **FAIL**:

```
- key 2: v
key 1: val
```

the following code snippet would FAIL:

```
- {b: 1, a: 2}
```

the following code snippet would FAIL:

```
- T-shirt: 1
t-shirt: 2
T-shirts: 3
t-shirts: 4
```

the following code snippet would **FAIL**:

```
- haïr: true hais: true
```

2. With global option locale: "en\_US.UTF-8" and rule key-ordering: {} as opposed to before, the following code snippet would now PASS:

```
- t-shirt: 1
T-shirt: 2
t-shirts: 3
T-shirts: 4
- hair: true
haïr: true
haïs: true
haïs: true
```

#### 2.3.17 line-length

Use this rule to set a limit to lines length.

#### **Options**

- max defines the maximal (inclusive) length of lines.
- allow-non-breakable-words is used to allow non breakable words (without spaces inside) to overflow the limit. This is useful for long URLs, for instance. Use true to allow, false to forbid.
- allow-non-breakable-inline-mappings implies allow-non-breakable-words and extends it to also allow non-breakable words in inline mappings.

#### Default values (when enabled)

```
rules:
    line-length:
    max: 80
    allow-non-breakable-words: true
    allow-non-breakable-inline-mappings: false
```

#### **Examples**

1. With line-length: {max: 70}
the following code snippet would PASS:

```
long sentence:
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do
eiusmod tempor incididunt ut labore et dolore magna aliqua.
```

## the following code snippet would FAIL:

```
long sentence:
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.
```

2. With line-length: {max: 60, allow-non-breakable-words: true}
the following code snippet would PASS:

```
this:
    is:
        - a:
            http://localhost/very/very/very/very/very/very/very/long/url

# this comment is too long,
# but hard to split:
# http://localhost/another/very/very/very/very/very/very/very/long/url
```

#### the following code snippet would **FAIL**:

```
- this line is waaaaaaaaaaaaaaaaaa too long but could be easily split...
```

## and the following code snippet would also FAIL:

```
- foobar: http://localhost/very/very/very/very/very/very/very/long/url
```

```
- foobar: http://localhost/very/very/very/very/very/very/very/long/url
```

4. With line-length: {max: 60, allow-non-breakable-words: false} the following code snippet would FAIL:

```
this:
    is:
        - a:
            http://localhost/very/very/very/very/very/very/very/long/url
```

#### 2.3.18 new-line-at-end-of-file

Use this rule to require a new line character (\n) at the end of files.

The POSIX standard requires the last line to end with a new line character. All UNIX tools expect a new line at the end of files. Most text editors use this convention too.

#### 2.3.19 new-lines

Use this rule to force the type of new line characters.

2.3. Rules 33

## **Options**

• Set type to unix to enforce UNIX-typed new line characters (\n), set type to dos to enforce DOS-typed new line characters (\r\n), or set type to platform to infer the type from the system running yamllint (\n on POSIX / UNIX / Linux / Mac OS systems or \r\n on DOS / Windows systems).

## Default values (when enabled)

```
rules:
   new-lines:
   type: unix
```

## 2.3.20 octal-values

Use this rule to prevent values with octal numbers. In YAML, numbers that start with 0 are interpreted as octal, but this is not always wanted. For instance 010 is the city code of Beijing, and should not be converted to 8.

### **Options**

- Use forbid-implicit-octal to prevent numbers starting with 0.
- Use forbid-explicit-octal to prevent numbers starting with 0o.

## Default values (when enabled)

```
rules:
    octal-values:
    forbid-implicit-octal: true
    forbid-explicit-octal: true
```

### **Examples**

1. With octal-values: {forbid-implicit-octal: true}
the following code snippets would PASS:

```
user:
city-code: '010'
```

the following code snippets would PASS:

```
user:
city-code: 010,021
```

the following code snippets would FAIL:

```
user:
  city-code: 010
```

2. With octal-values: {forbid-explicit-octal: true}
the following code snippets would PASS:

```
user:
city-code: '0o10'
```

the following code snippets would FAIL:

```
user:
  city-code: 0o10
```

## 2.3.21 quoted-strings

Use this rule to forbid any string values that are not quoted, or to prevent quoted strings without needing it. You can also enforce the type of the quote used.

## **Options**

- quote-type defines allowed quotes: single, double or any (default).
- required defines whether using quotes in string values is required (true, default) or not (false), or only allowed when really needed (only-when-needed).
- extra-required is a list of PCRE regexes to force string values to be quoted, if they match any regex. This option can only be used with required: false and required: only-when-needed.
- extra-allowed is a list of PCRE regexes to allow quoted string values, even if required: only-when-needed is set.
- allow-quoted-quotes allows (true) using disallowed quotes for strings with allowed quotes inside.
   Default false.

**Note**: Multi-line strings (with | or >) will not be checked.

#### Default values (when enabled)

```
rules:
    quoted-strings:
    quote-type: any
    required: true
    extra-required: []
    extra-allowed: []
    allow-quoted-quotes: false
```

## **Examples**

1. With quoted-strings: {quote-type: any, required: true}
the following code snippet would PASS:

```
foo: "bar"
bar: 'foo'
number: 123
boolean: true
```

the following code snippet would FAIL:

2.3. Rules 35

```
foo: bar
```

2. With quoted-strings: {quote-type: single, required: only-when-needed}
the following code snippet would PASS:

```
foo: bar
bar: foo
not_number: '123'
not_boolean: 'true'
not_comment: '# comment'
not_list: '[1, 2, 3]'
not_map: '{a: 1, b: 2}'
```

the following code snippet would **FAIL**:

```
foo: 'bar'
```

the following code snippet would **PASS**:

```
- localhost
- "localhost"
- "http://localhost"
- "ftp://localhost"
```

the following code snippet would **FAIL**:

```
- http://localhost
- ftp://localhost
```

the following code snippet would **PASS**:

```
- localhost
- "http://localhost"
- "ftp://localhost"
- "this is a string that needs to be QUOTED"
```

the following code snippet would **FAIL**:

```
- "localhost"
- this is a string that needs to be QUOTED
```

5. With quoted-strings: {quote-type: double, allow-quoted-quotes: false} the following code snippet would PASS:

```
foo: "bar\"baz"
```

the following code snippet would FAIL:

```
foo: 'bar"baz'
```

6. With quoted-strings: {quote-type: double, allow-quoted-quotes: true} the following code snippet would PASS:

```
foo: 'bar"baz'
```

## 2.3.22 trailing-spaces

Use this rule to forbid trailing spaces at the end of lines.

## **Examples**

1. With trailing-spaces: {}
the following code snippet would PASS:

```
this document doesn't contain any trailing spaces
```

the following code snippet would FAIL:

```
this document contains trailing spaces on lines 1 and 3
```

## 2.3.23 truthy

Use this rule to forbid non-explicitly typed truthy values other than allowed ones (by default: true and false), for example YES or off.

This can be useful to prevent surprises from YAML parsers transforming [yes, FALSE, Off] into [true, false, false] or {y: 1, yes: 2, on: 3, true: 4, True: 5} into {y: 1, true: 5}.

#### **Options**

- allowed-values defines the list of truthy values which will be ignored during linting. The default is ['true', 'false'], but can be changed to any list containing: 'TRUE', 'True', 'true', 'FALSE', 'False', 'false', 'YES', 'Yes', 'yes', 'NO', 'NO', 'NO', 'ON', 'ON', 'ON', 'OFF', 'Off', 'off'.
- check-keys disables verification for keys in mappings. By default, truthy rule applies to both keys and values. Set this option to false to prevent this.

### Default values (when enabled)

```
rules:
   truthy:
   allowed-values: ['true', 'false']
   check-keys: true
```

2.3. Rules 37

## **Examples**

With truthy: {}
 the following code snippet would PASS:

```
boolean: true
object: {"True": 1, 1: "True"}
"yes": 1
"on":
"True": 3
explicit:
  string1: !!str True
  string2: !!str yes
  string3: !!str off
  encoded: !!binary |
              True
              OFF
              pad== # this decodes as 'N>8Qii'
  boolean1: !!bool true
  boolean2: !!bool "false"
  boolean3: !!bool FALSE
  boolean4: !!bool True
  boolean5: !!bool off
  boolean6: !!bool NO
```

the following code snippet would FAIL:

```
object: {True: 1, 1: True}
```

the following code snippet would FAIL:

```
yes: 1
on: 2
True: 3
```

2. With truthy: {allowed-values: ["yes", "no"]}

the following code snippet would **PASS**:

```
- yes
- no
- "true"
- 'false'
- foo
- bar
```

the following code snippet would FAIL:

```
- true
- false
- on
- off
```

3. With truthy: {check-keys: false} the following code snippet would PASS:

```
yes: 1
on: 2
true: 3
```

the following code snippet would FAIL:

```
yes: Yes
on: On
true: True
```

## 2.4 Disable with comments

## 2.4.1 Disabling checks for a specific line

To prevent yamllint from reporting problems for a specific line, add a directive comment (# yamllint disable-line ...) on that line, or on the line above. For instance:

```
# The following mapping contains the same key twice,
# but I know what I'm doing:
key: value 1
key: value 2 # yamllint disable-line rule:key-duplicates

- This line is waaaaaaaaaay too long but yamllint will not report anything about it.

→# yamllint disable-line rule:line-length
This line will be checked by yamllint.
```

or:

```
# The following mapping contains the same key twice,
# but I know what I'm doing:
key: value 1
# yamllint disable-line rule:key-duplicates
key: value 2
# yamllint disable-line rule:line-length
- This line is waaaaaaaaaay too long but yamllint will not report anything about it.
This line will be checked by yamllint.
```

It is possible, although not recommend, to disabled **all** rules for a specific line:

```
# yamllint disable-line
- { all: rules, are disabled for this line}
```

You can't make yamllint ignore invalid YAML syntax on a line (which generates a *syntax error*), such as when templating a YAML file with Jinja. In some cases, you can workaround this by putting the templating syntax in a YAML comment. See *Putting template flow control in comments*.

If you need to disable multiple rules, it is allowed to chain rules like this: # yamllint disable-line rule:hyphens rule:commas rule:indentation.

## 2.4.2 Disabling checks for all (or part of) the file

To prevent yamllint from reporting problems for the whole file, or for a block of lines within the file, use # yamllint disable ... and # yamllint enable ... directive comments. For instance:

```
# yamllint disable rule:colons
- Lorem : ipsum
dolor : sit amet,
  consectetur: adipiscing elit
# yamllint enable rule:colons
- rest of the document...
```

It is possible, although not recommend, to disabled **all** rules:

```
# yamllint disable
- Lorem :
    ipsum:
        dolor : [ sit,amet]
-        consectetur : adipiscing elit
# yamllint enable
```

If you need to disable multiple rules, it is allowed to chain rules like this: # yamllint disable rule:hyphens rule:commas rule:indentation.

## 2.4.3 Disabling all checks for a file

To prevent yamllint from reporting problems for a specific file, add the directive comment # yamllint disable-file as the first line of the file. For instance:

```
# yamllint disable-file
# The following mapping contains the same key twice, but I know what I'm doing:
key: value 1
key: value 2
- This line is waaaaaaaaay too long but yamllint will not report anything about it.
```

or:

```
# yamllint disable-file
# This file is not valid YAML because it is a Jinja template
{% if extra_info %}
key1: value1
{% endif %}
key2: value2
```

### Putting template flow control in comments

Alternatively for templating you can wrap the template statements in comments to make it a valid YAML file. As long as the templating language doesn't use the same comment symbol, it should be a valid template and valid YAML (pre and post-template processing).

Example of a Jinja2 code that cannot be parsed as YAML because it contains invalid tokens {% and %}:

```
# This file IS NOT valid YAML and will produce syntax errors
{% if extra_info %}
key1: value1
{% endif %}
key2: value2
```

But it can be fixed using YAML comments:

```
# This file IS valid YAML because the Jinja is in a YAML comment
# {% if extra_info %}
key1: value1
# {% endif %}
key2: value2
```

# 2.5 Development

yamllint provides both a script and a Python module. The latter can be used to write your own linting tools.

Basic example of running the linter from Python:

```
import yamllint

yaml_config = yamllint.config.YamlLintConfig("extends: default")
for p in yamllint.linter.run(open("example.yaml", "r"), yaml_config):
    print(p.desc, p.line, p.rule)
```

**class** yamllint.linter.**LintProblem** (*line*, *column*, *desc='<no description>'*, *rule=None*)

Represents a linting problem found by yamllint.

```
column = None
```

Column on which the problem was found (starting at 1)

#### desc = None

Human-readable description of the problem

#### line = None

Line on which the problem was found (starting at 1)

#### rule = None

Identifier of the rule that detected the problem

```
yamllint.linter.run (input, conf, filepath=None)
Lints a YAML source.
```

Returns a generator of LintProblem objects.

#### **Parameters**

- input buffer, string or stream to read from
- conf yamllint configuration object

# 2.6 Integration with text editors

Most text editors support syntax checking and highlighting, to visually report syntax errors and warnings to the user. yamllint can be used to syntax-check YAML source, but a bit of configuration is required depending on your favorite text editor.

## 2.6.1 Vim

Assuming that the ALE plugin is installed, yamllint is supported by default. It is automatically enabled when editing YAML files.

2.5. Development 41

If you instead use the syntastic plugin, add this to your .vimrc:

```
let g:syntastic_yaml_checkers = ['yamllint']
```

## 2.6.2 Neovim

Assuming that the neomake plugin is installed, yamllint is supported by default. It is automatically enabled when editing YAML files.

### 2.6.3 Emacs

If you are flycheck user, you can use flycheck-yamllint integration.

### 2.6.4 Visual Studio Code

https://marketplace.visualstudio.com/items?itemName=fnando.linter

## 2.6.5 IntelliJ

https://plugins.jetbrains.com/plugin/15349-yamllint

#### 2.6.6 Other text editors

## Help wanted!

Your favorite text editor is not listed here? Help us improve by adding a section (by opening a pull-request or issue on GitHub).

# 2.7 Integration with other software

## 2.7.1 Integration with pre-commit

You can integrate yamllint in the pre-commit tool. Here is an example, to add in your .pre-commit-config.yaml

```
# Update the rev variable with the release version that you want, from the yamllint repo
# You can pass your custom .yamllint with args attribute.

repos:
- repo: https://github.com/adrienverge/yamllint.git
rev: v1.29.0
hooks:
- id: yamllint
args: [--strict, -c=/path/to/.yamllint]
```

## 2.7.2 Integration with GitHub Actions

yamllint auto-detects when it's running inside of GitHub Actions and automatically uses the suited output format to decorate code with linting errors. You can also force the GitHub Actions output with yamllint --format github.

A minimal example workflow using GitHub Actions:

```
on: push # yamllint disable-line rule:truthy

jobs:
    lint:
    runs-on: ubuntu-latest
    steps:
        - uses: actions/checkout@v3

        - name: Install yamllint
        run: pip install yamllint
        run: yamllint .
```

## 2.7.3 Integration with Arcanist

You can configure yamllint to run on arc lint. Here is an example .arclint file that makes use of this configuration.

```
{
  "linters": {
    "yamllint": {
        "type": "script-and-regex",
        "script-and-regex.script": "yamllint",
        "script-and-regex.regex": "/^(?P<line>\\d+):(?P<offset>\\d+) +(?P<severity>
        warning|error) +(?P<message>.*) +\\((?P<name>.*)\\)$/m",
        "include": "(\\.(yml|yaml)$)"
    }
}
```

# Python Module Index

```
У
yamllint, ??
yamllint.linter,41
yamllint.rules.anchors, 12
yamllint.rules.braces, 14
yamllint.rules.brackets, 15
yamllint.rules.colons, 17
yamllint.rules.commas, 18
yamllint.rules.comments, 19
yamllint.rules.comments_indentation, 20
yamllint.rules.document_end, 21
yamllint.rules.document_start,22
yamllint.rules.empty_lines, 23
yamllint.rules.empty_values, 24
yamllint.rules.float_values, 25
yamllint.rules.hyphens, 26
yamllint.rules.indentation, 27
yamllint.rules.key_duplicates, 30
yamllint.rules.key_ordering,31
yamllint.rules.line_length, 32
yamllint.rules.new_line_at_end_of_file,
yamllint.rules.new_lines, 33
yamllint.rules.octal_values, 34
yamllint.rules.quoted_strings, 35
yamllint.rules.trailing_spaces, 37
yamllint.rules.truthy, 37
```

46 Python Module Index

## Index

```
C
                                               yamllint.rules.quoted_strings (module), 35
                                               yamllint.rules.trailing_spaces (module),
column (yamllint.linter.LintProblem attribute), 41
                                               yamllint.rules.truthy (module), 37
D
desc (yamllint.linter.LintProblem attribute), 41
L
line (yamllint.linter.LintProblem attribute), 41
LintProblem (class in yamllint.linter), 41
rule (yamllint.linter.LintProblem attribute), 41
run () (in module yamllint.linter), 41
Y
yamllint (module), 1
yamllint.linter (module), 41
yamllint.rules.anchors (module), 12
yamllint.rules.braces (module), 14
yamllint.rules.brackets (module), 15
yamllint.rules.colons (module), 17
yamllint.rules.commas (module), 18
yamllint.rules.comments (module), 19
yamllint.rules.comments_indentation
       (module), 20
yamllint.rules.document_end(module), 21
yamllint.rules.document_start (module), 22
yamllint.rules.empty_lines (module), 23
yamllint.rules.empty_values (module), 24
yamllint.rules.float_values (module), 25
yamllint.rules.hyphens (module), 26
yamllint.rules.indentation (module), 27
yamllint.rules.key_duplicates (module), 30
yamllint.rules.key_ordering(module), 31
yamllint.rules.line_length (module), 32
yamllint.rules.new_line_at_end_of_file
        (module), 33
yamllint.rules.new_lines (module), 33
yamllint.rules.octal_values (module), 34
```