# yamllint

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### 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.

# Screenshot

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

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

# **Table of contents**

# 2.1 Quickstart

# 2.1.1 Installing yamllint

#### On Fedora / CentOS:

sudo dnf install yamllint

#### On Debian 9+ / Ubuntu 16.04+:

sudo apt-get install yamllint

#### On older Debian / Ubuntu versions:

```
sudo add-apt-repository -y ppa:adrienverge/ppa && sudo apt-get update
sudo apt-get install yamllint
```

#### Alternatively using pip, the Python package manager:

```
sudo pip install yamllint
```

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

```
python setup.py sdist
sudo pip install 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 .

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

```
file.yml
1:4 error trailing spaces (trailing-spaces)
4:4 error wrong indentation: expected 4 but found 3 (indentation)
5:4 error duplication of key "id-00042" in mapping (key-duplicates)
```

```
6:6
           warning comment not indented like content (comments-indentation)
 12:6
                    too many spaces after hyphen (hyphens)
           error
 15:12
                   too many spaces before comma
           error
                                                 (commas)
other-file.yaml
           warning missing document start "---" (document-start)
 1:1
                    line too long (87 > 80 characters) (line-length)
 6:81
           error
                    too many blank lines (4 > 2) (empty-lines)
 10:1
           error
 11:4
                 too many spaces inside braces (braces)
           error
```

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

- .yamllint in the current working directory
- \$XDG\_CONFIG\_HOME/yamllint/config
- \$HOME/.config/yamllint/config

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:

```
rules:
    braces:
    min-spaces-inside: 0
    max-spaces-inside: 0
    brackets:
```

\_\_\_\_

```
min-spaces-inside: 0
 max-spaces-inside: 0
colons:
 max-spaces-before: 0
 max-spaces-after: 1
commas:
 max-spaces-before: 0
 min-spaces-after: 1
 max-spaces-after: 1
comments:
 level: warning
 require-starting-space: yes
 min-spaces-from-content: 2
comments-indentation:
 level: warning
document-end: disable
document-start:
 level: warning
 present: yes
empty-lines:
 max: 2
 max-start: 0
 max-end: 0
hyphens:
 max-spaces-after: 1
indentation:
 spaces: consistent
 indent-sequences: yes
 check-multi-line-strings: no
key-duplicates: enable
line-length:
 max: 80
 allow-non-breakable-words: yes
new-line-at-end-of-file: enable
new-lines:
 type: unix
trailing-spaces: enable
```

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.

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:
   max: 80
   level: warning
  # accept both
                    key:
                      - item
  #
  #
  # and
                    key:
  #
                    - item
  indentation:
    indent-sequences: whatever
```

# 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.

In both cases, the script will output them (with different colors when using the standard output format), but the exit code can be different. More precisely, the script will exit will a failure code *only when* there is one or more error(s).

# 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				
• braces				
• brackets				
• colons				
• commas				
• comments				
<ul> <li>comments-indentation</li> </ul>				
<ul> <li>document-end</li> </ul>				
<ul> <li>document-start</li> </ul>				
<ul> <li>empty-lines</li> </ul>				
hyphens				
<ul> <li>indentation</li> </ul>				
<ul> <li>key-duplicates</li> </ul>				
<ul> <li>line-length</li> </ul>				
<ul> <li>new-line-at-end-of-file</li> </ul>				
new-lines				
<ul> <li>trailing-spaces</li> </ul>				

# 2.3.1 braces

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

#### Options

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

#### Examples

```
1. 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 }

```
2. 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 }
```

# 2.3.2 brackets

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

#### Options

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

#### Examples

1. 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 ]

2. 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 ]

### 2.3.3 colons

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

1

#### 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).

#### **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

# 2.3.4 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.
- $\bullet$  max-spaces-after defines the maximal number of spaces allowed after commas (use -1 to disable).

# Examples

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: {max-spaces-before: -1}

the following code snippet would PASS:

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

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}]

# 2.3.5 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 yes to enable, no to disable.

• 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.

#### **Examples**

1. With comments: {require-starting-space: yes}

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. 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

### 2.3.6 comments-indentation

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

#### **Examples**

1. 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:

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
```

# 2.3.7 document-end

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

#### Options

• Set present to yes when the document end marker is required, or to no when it is forbidden.

### **Examples**

\_\_\_\_

1. With document-end: {present: yes}

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: no}

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
```

\_\_\_\_

# 2.3.8 document-start

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

### Options

• Set present to yes when the document start marker is required, or to no when it is forbidden.

#### **Examples**

----

1. With document-start: {present: yes}

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: no}

the following code snippet would PASS:

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

the following code snippet would FAIL:

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

### 2.3.9 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.

#### **Examples**

1. 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]
```

# 2.3.10 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.

### Examples

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
```

# 2.3.11 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: yes, no, 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 yes to enable, no to disable.

#### **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

- name: Linux

date: 1991

nest:

recurse:

- haystack:

needle
```

the following code snippet would FAIL:

some: Russian: dolls 4. With indentation: {spaces: 2, indent-sequences: no}

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
not flying:
spaghetti
sauce
```

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

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");
  }
```

# 2.3.12 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
```

# 2.3.13 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 yes to allow, no to forbid.

#### **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: yes}
```

the following code snippet would PASS:

the following code snippet would FAIL:

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

```
3. With line-length: {max: 60, allow-non-breakable-words: no}
```

the following code snippet would FAIL:

# 2.3.14 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.

# 2.3.15 new-lines

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

#### Options

• Set type to unix to use UNIX-typed new line characters (\n), or dos to use DOS-typed new line characters (\r\n).

# 2.3.16 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

# 2.4 Development

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

```
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)
```

Lints a YAML source.

Returns a generator of LintProblem objects.

### Parameters

• **input** – buffer, string or stream to read from

• **conf** – yamllint configuration object

# 2.5 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.

# 2.5.1 Vim

Assuming that the syntastic plugin is installed, add to your .vimrc:

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

# 2.5.2 Neovim

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

# 2.5.3 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).

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