

# YAML Quick Reference

Scalars, sequences, mappings, anchors, multi-line

## Syntax

### Basic Rules

<b>Indentation</b>	Spaces only (no tabs), consistent depth
<b>#</b>	Comment (to end of line)
<b>---</b>	Document start marker
<b>...</b>	Document end marker
<b>Case sensitive</b>	Keys and values are case-sensitive

### Minimal Example

```
---
name: Alice
age: 30
active: true
```

## Scalars

### Scalar Types

<b>hello</b>	String (unquoted)
<b>"hello"</b>	String (double-quoted, allows escapes)
<b>'hello'</b>	String (single-quoted, literal)
<b>42 / 3.14</b>	Number (integer / float)
<b>true / false</b>	Boolean
<b>null / ~</b>	Null value
<b>2026-03-26</b>	Date (ISO 8601)

### Quoting Rules

plain: no quotes needed  
special: "colon:" and hash # need quotes"  
escape: "line\nnewline"  
literal: 'no \n escaping here'

## Sequences

### Block Sequence

```
fruits:
- apple
- banana
- cherry
```

### Flow Sequence (Inline)

```
colors: [red, green, blue]
matrix: [[1, 2], [3, 4]]
```

### Sequence of Objects

```
users:
- name: Alice
  role: admin
- name: Bob
  role: user
```

## Mappings

### Block Mapping

```
server:
  host: localhost
  port: 8080
  debug: false
```

### Flow Mapping (Inline)

```
point: {x: 10, y: 20}
```

### Complex Keys

```
? [first, second]
: "compound key value"
```

## Anchors & Aliases

### Define & Reuse

```
defaults: &defaults
  timeout: 30
  retries: 3
production:
  <<: *defaults
  timeout: 60
```

### Reference

<b>&amp;name</b>	Define an anchor
<b>*name</b>	Reference (alias) an anchor
<b>&lt;&lt;</b>	Merge key — merge mapping into current

## Multi-line Strings

### Block Scalars

<b>  (literal)</b>	Preserves newlines exactly
<b>&gt; (folded)</b>	Folds newlines into spaces
<b> + (keep)</b>	Literal, keep trailing newlines
<b> - (strip)</b>	Literal, strip trailing newlines
<b>&gt;- (fold+strip)</b>	Folded, strip trailing newlines

### Literal Block

```
script: |
  echo "line one"
  echo "line two"
```

### Folded Block

```
description: >
  This long text will be
  folded into a single line
  with spaces.
```

## Tags

### Type Tags

<b>!!str 42</b>	Force value to string "42"
<b>!!int "42"</b>	Force value to integer 42
<b>!!float 1</b>	Force value to float 1.0
<b>!!bool "true"</b>	Force value to boolean
<b>!!null ""</b>	Force value to null
<b>!!binary</b>	Base64-encoded binary data

### Tag Example

```
port: !!str 8080
enabled: !!bool "yes"
version: !!float 3
```

## Common Patterns

### Docker Compose

```
services:
  web:
    image: nginx:alpine
    ports: ["80:80"]
    environment:
      NODE_ENV: production
```

### GitHub Actions

```
on: [push, pull_request]
jobs:
  test:
    runs-on: ubuntu-latest
    steps:
      - uses: actions/checkout@v4
```

## Tips

<b>yamllint</b>	Lint YAML for syntax and style
<b>yq</b>	Command-line YAML processor (like jq)
<b>Avoid Norway</b>	NO is boolean false — quote country codes
<b>Avoid !!python</b>	Never load untrusted YAML with unsafe loaders