

YAML Basics for Operators

Built for operators. Maintained in the open.

Essential YAML fundamentals for working safely with Kubernetes and OpenShift manifests. Focused on structure, indentation, and patterns you will see in real environments.

YAML Survival Rules

- Use spaces only (never tabs)
 - Be consistent with indentation (commonly 2 spaces)
 - Indentation defines structure
 - Case-sensitive keys
 - When in doubt, align with the parent key
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Basic Key / Value Structure

```
key: value
string: hello
number: 42
boolean: true
```

Nested Objects

```
parent:
  child: value
  another_child: another_value
```

Lists (Arrays)

```
ports:
  - 80
  - 443

names:
  - api
  - web
  - worker
```



Lists of Objects

```
containers:
  - name: app
    image: nginx
    ports:
      - containerPort: 80
```

Comments

```
# This line is ignored by YAML
```

Multi-line Strings

```
description: |
  Line one
  Line two
  Line three
```

">" folds newlines into spaces

```
summary: >
  This becomes
  a single line.
```

Common Kubernetes / OpenShift Fields

```
apiVersion: v1
kind: Service
metadata:
  name: hello-service
  labels:
    app: hello

spec:
  selector:
    app: hello
  ports:
    - protocol: TCP
      port: 80
      targetPort: 8080
```

Indentation Failure Example (DO NOT DO)

```
spec:
  selector:
    app: broken
```



Operator Tips

- YAML errors are usually indentation errors.
- If a manifest won't apply, re-check spacing first.
- Copy working examples and modify incrementally.
- Validate structure with: `oc explain`