

## 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
- 

### 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`