

ANSIBLE YAML FILE - DATA TYPES

YAML (short for **YAML Ain't Markup Language**) is a human-readable data serialization standard often used for configuration files, data exchange, and programming tasks. YAML provides a simple way to structure data and is widely used because of its readability and ease of use.

Key Features of YAML:

1. **Human-Readable:** It uses indentation and plain text, making it easy to read and write.
2. **Hierarchical Structure:** It organizes data into nested structures using indentation.
3. **Supports Multiple Data Types:** Scalars (strings, numbers), lists, and key-value mappings (dictionaries).
4. **Comment Support:** You can add comments using the `#` symbol.

Syntax Basics:

1. Key-Value Pair:

```
name: Kavitha  
location: Chennai
```

2. Lists:

```
games:  
  - Football  
  - Basketball  
  - Tennis
```

3. Nested Structures:

```
person:  
  name: Priya  
  contact: 1234567890  
  email: admin@gmail.com
```

4. Mappings:

```
person:  
  name: Alice  
  age: 30  
  city: New York
```

5. Comments:

```
# This is a comment  
environment: production
```

6. Multi_line scalar:

```
Description: |  
  This is a sample YAML script
```

YAML Script Validated by using YAML Lint

YAML Lint

Paste in your YAML and click "Go" - we'll tell you if it's valid or not, and give you a nice clean UTF-8 version of it.

```
1  ---
2  name: Kavitha
3  location: Chennai
4  Games:
5    - Football
6    - Basketball
7    - Tennis
8  languages:
9    programming:
10     - Python
11     - JavaScript
12     - Go
13    spoken:
14     - English
15     - French
16     - Spanish
17  Description: |
18    This is a sample YAML script
19
20
```

Go ☒ Reformat (strips comments) ☒ Resolve aliases

Valid YAML!

Advantages of YAML:

- **Readable:** Intuitive for humans compared to JSON or XML.
- **Lightweight:** Easy to parse and integrate with applications.
- **Flexible:** Supports complex nested structures.

Common Use Cases in DevOps:

- Writing Kubernetes manifests.
- Defining Ansible playbooks.
- Configuring GitHub Actions or GitLab CI/CD pipelines.
- Creating AWS CloudFormation templates for provisioning resources.