## 📝 YAML Notes – Aakrit Das

### 📌 Basics

* YAML = YAML Ain’t Markup Language → used for configs, readable data, etc.
* Indentation is key! Use **spaces**, not tabs.

### 📂 Basic Structure

yaml

CopyEdit

key: value # Map

list:

- item1

- item2 # Sequence

You can also use flow style:

yaml

CopyEdit

list: [item1, item2]

### 🔢 Data Types

yaml

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string: "text" or 'text'

int: !!int 42

float: !!float 3.14

bool: !!bool true # true, True, TRUE, false, etc.

null: !!null null # or just ~

### 📅 Date & Time

yaml

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date: 2025-05-17

timestamp: 2025-05-17T14:30:00Z

timestamp\_with\_offset: 2025-05-17T14:30:00+05:30

explicit\_date: !!timestamp 2025-05-17

### 🔁 Anchors and Aliases

yaml

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likings: &likes

fav fruit: mango

dislikes: grapes

person1:

<<: \*likes

* &likes is the anchor, \*likes reuses it with merge (<<:).

### 🔀 Sets and Ordered Maps

**Set: unique keys only**

yaml

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names: !!set

? kunal

? aakrit

? ayush

**Ordered map:**

yaml

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people: !!omap

- mantu:

- name: Aakrit

### 🧬 Nested Sequences and Mappings

**Nested Lists:**

yaml

CopyEdit

-

- dog

- cat

-

- red

- blue

**Nested Map:**

yaml

CopyEdit

name: Aakrit

role:

age: 21

job: student

### ⚠️ Special Features

* Multiline string:

yaml

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bio: |

this is

a single string block

* Folded block (> turns newlines into spaces):

yaml

CopyEdit

message: >

This is

one single line

* Sparse sequences (some values missing):

yaml

CopyEdit

sparse:

- hey

- how

-

- null

## 🧠 Real-World Assignment

Create a **YAML configuration file for a fictional startup’s DevOps environment**. Example:

### 💼 Project: devops-stack.yaml

Create a YAML file that includes:

1. **Company Info**:
   * Name, founded year, founder.
2. **Environments**:
   * dev, staging, production.
3. **Each environment should include**:
   * List of microservices (e.g., auth, payments, dashboard).
   * Kubernetes replica counts.
   * Database config (name, type, user/pass).
   * CI/CD config (tool, branch to deploy from).
   * Alerts settings (on/off, Slack/email).
4. Use:
   * Anchors & aliases (for shared config)
   * Sets (unique alert channels)
   * Ordered maps (to show deployment steps)
   * Multiline string (for readme or description)
   * Timestamps