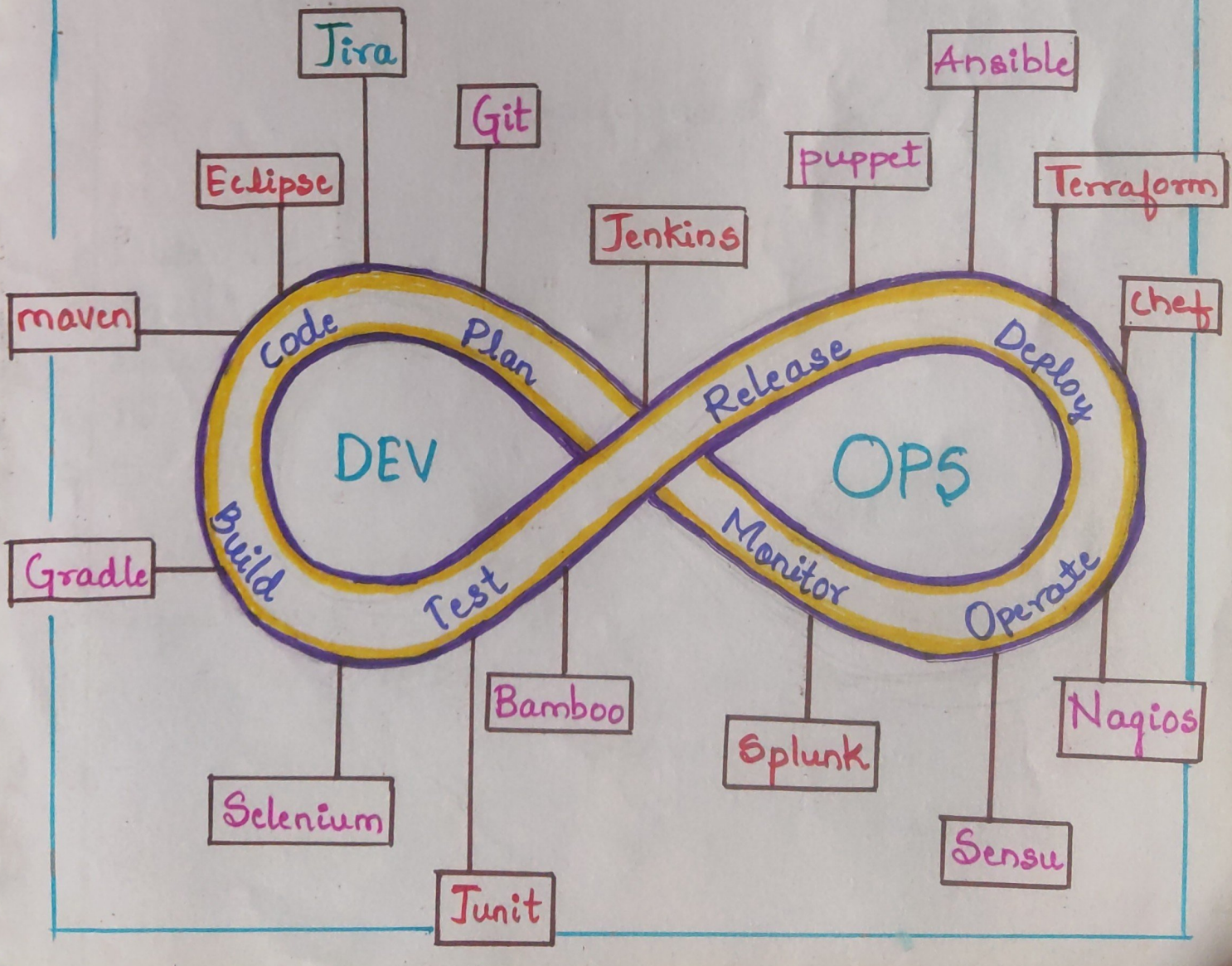
OM NAMAH SHIVAY.

Development + Operation

German

DEVOPS



* **Devops :→**

Devops is a culture which is designed to automate & integrate the process of software development & deployment, bridge the gap between software development & IT operation, deliver the software faster, helps in building & testing.

* **Software development lifecycle :→**

Standard process or tasks involved while building the software

Ex: Hotel manager → XYZ company

↳ requirement

build a website where I can sell food. (zomato, Swiggy)

Step 1: Requirement Gathering :→ phase

Food delivery, mobile, web, integrate google map, track the order, payment gateway, items from all their different restaurant, place the order

In this step only I will decide which programming language I want to go with Java, python, c.

phase 2 :- Design

↳ Create the flow chart

↓

diagram to know the flow of application created.

3) Development phase :⟶ If I consider java Java developers.

4) Testing :⟶ QA payment, gateway, google-map

5) Deployment :⟶ Devops Engineer.

↳ physical Server / cloud. Services

Ex: If I want to download any app on laptop, go to google chrome exe. file I will download => deployment

6) Maintenance / Monitoring :⟶

↳ Application working Smoothly

* Waterfall model :⟶

↳ very old model.

(As the water falls from the mountain & it cannot go back) in the same way if we follow the phases above & the person wants to add some features later it cannot be done, again we need to start from scratch.

. Building application through iterations.

↓

Agile model

* Agile Model :⟶

- The applications are build iteratively
- we will not build the entire application at once.

Iteration 1 payment google map	Iteration 2 payment delivery	Iteration 3

Jira tool

- Benefits = modifications can be done.

Agile Cons :→

Development - alone
Devops - alone
Testing - Standalone

Standalone is also called as Silo
- work grouping

Devops :→

Methodology
Development + Operation
- working as one team

Devops → Engineer - MLops — cybersecurity AI.

Version Control System :→

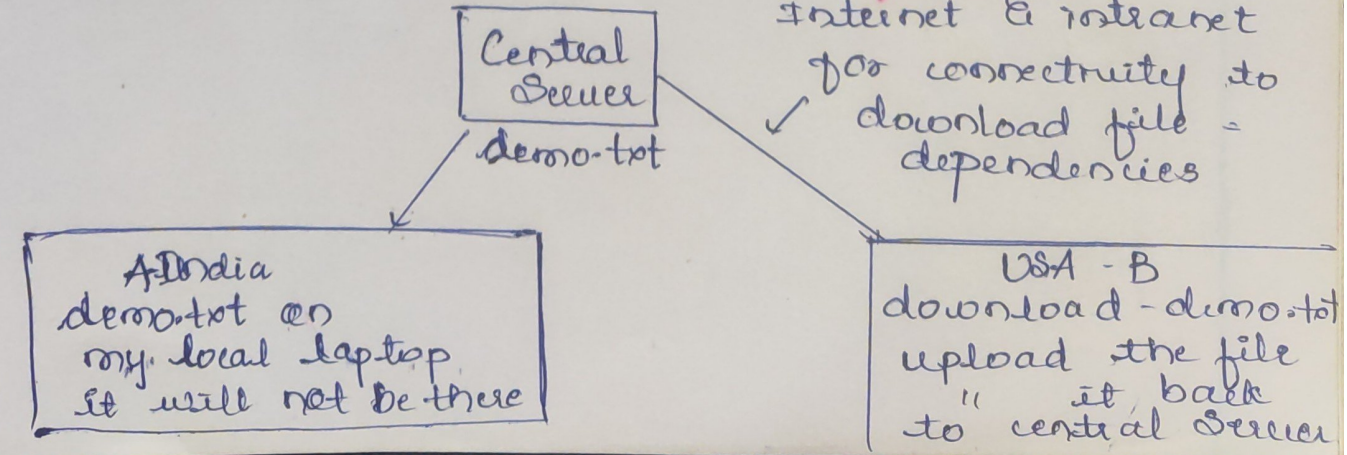
- Maintaining the version of the code.

Ex. xyz.txt - hi, hello how r u doing
abc xyz.txt = hi, hello, how r, u doing. Its me abc
- who made the change
- What time the change was done

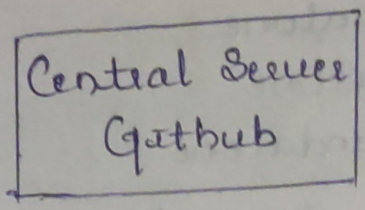
Types of Version control System:

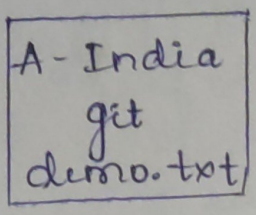
1) Centralised Version Control System → SVN tool
2) Distributed " → Git

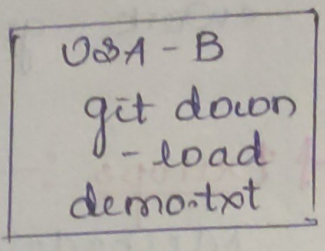
Centralised VCS :→



Distributed VCS :→







- we will have copy of the file in local system
- We require the internet only when we want to download files
- There is no dependencies