**Devops**

It is not a language

It’s not a package

It is a procedure/strategy/method

If we follow some steps we are going to provide software with qualitative and effective

It comes under SDLC model.

**SDLC (Software Development Life Cycle)**

Models== Earliest was **Water fall model** ruled 15years 4% are using now, because model became Absolute

Agile was most successful model

Devops is a new model which is related to SDLC

**Evolution of SDLC**

Modern computers were invented in 1880’s

1880’s to 1962 computers were limited to govt., military, Science & Technology

In 1962 USA common people & Retail has started using

In USA 1965, in India 1980 has recognized as IT industry.

In 1968 was the year where the working group to determine what are the standards to follow.

**Waterfall Model was invented by Winston**

It got a universal model, it is **adopted** **model**.

They designed SDLC should be Plan, Design, Code, Test, Maintenance.

**SaFe is a model after Devops**=Agile + Devops

Is all about engineering practice

Waterfall model is the foundational of SDLC.

**Understanding of SDLC**

1) Plan-

a) Strategic Analysis

b) Capacity Analysis

10/01/2023 **Day11**

**Setup**

**Step1: Oracle VM Box**

<https://www.virtualbox.org/wiki/Downloads>

[**Windows hosts**](https://download.virtualbox.org/virtualbox/7.0.4/VirtualBox-7.0.4-154605-Win.exe)

**Step2: image configuration**

Centos 7

[CentOS-7-x86\_64-Minimal-2009.iso](http://centos.excellmedia.net/7.9.2009/isos/x86_64/CentOS-7-x86_64-Minimal-2009.iso) 1.0G

11/01/2023 **Day12**

**Step3:Network**

192.168.1.11

To start the network in Centos nmtui

hostname –I to know ip address

**19/01/2023**

**GIT**

How many repos can we create?

Unlimited

How many repos can we create in server side?

Unlimited

In git is it responsible for creating .txt files?

No, can create any files.

**GIT Architecture**

I have created a repo looking like a folder, that folder looks like a folder but contains .git technically it is not a folder.

That folder is a 3layer format.

The first layer is called working copy or working directory, we always create files here

The 2nd layer called staging or indexing

3rd layer is called Commit area.

This entire is called Local Repo.

\*from working copy to stagging **git add** command

From staging to commit area **git commit** command

From commit area only we can move to server, to send it server we use **git push** command

To get anything from server **git pull** command

Server can be internally in company or anywhere.

What is happen we can get to know **git status** command

**git commit** –m “add comments” filesname

To add multiple git commit –m “add comments” filesname f1 f2

git commit –m “add comments” .

to add file git add filename

to add multiple files with name give space in between the names git add file1 f2

if you give dot at the end then all files which are in WD will be added to staging git add .

esc: for insert

esc

**20/01/2023**

I have a folder in that I have files folders total 100 how can I convert that into Git repo?

Go into the folder and give git init don’t give the name.

**git add**. It puts all files untracked and adds in staging

**git ls-files** to know no. of files in commit area

in working area to know **ls –l**

in staging we can get to know by **git status**

nothing to commit, working directory clean this message get **when files/content WC==CA Staging==0when** both are true we will get that message.

**git show** we will get to know who is committed last

it will show commit id, author, date, commit message

**git log** will show recent commits, if (:) is there at the end then some more transactions are there if we press q then it is completed

**git log--all** to get all the commits from day1 gets all the data

**git log --oneline** gives only committed file names

**git reset HEAD** use to retrieve back the file

**touch filename** => which creates empty file

**21/01/2023**

git revert is to undo a change after commit.

**git revert commitid**

Then need to provide comments in file

**git checkout -- filename** to undo a change before commit.

When we know it is not a repo then we can use this to delete **git rm,**

**When we delete the file using rm, then the file will automatically moved into staging.**

**23/01/2023**

**Remote repo**

Devops engineer is capable of creating repo, but won’t create

2 types

1. Public repo: whatever data is present whoever creates a github account, access to open

Searchable on internet

Free of cost, there is limitation (may be memory, may be n. of people access……..)

1. Private repo: completely based on User Access Control,

Not searchable on internet

Paid service because of competition now few vendors are giving free for few services.

**Github**

Github.com

Create account-> signup using email and create password

Continue

Then Username

In company, company will create for us

Repo URL (open repo you will code button click on the code you can see the link that is URL), account id, password is required

**Can have multiple repos for one project**

When are getting repo for the first time on the computer, as long as it does not exist we have to use command called **git clone url of the repo**

**Git will allow only entire repo to copy.**

We will be having multiple repos to know which is remote repo or local repo by using **git remote –v** will give details from where that repo came.

Note: If it is link then it is remote repo

Difference between Public and private Repo?

Why we are using Github?

How do you clone a repo?

**24/01/2023**

When we create directly files in server side there is no staging.