Devops:

As name itself indicates , devops means the development and operations. In which development and operation processes are carried collectively.

It promotes collaboration b/n development and operaion team to deploy code to production faster in an automated way.

Waterfall Model:

Waterfall model is a traditional approach of software development.

In waterfall model, development happens in a step by step manner.

It is a sequential flow process ---that means any phase in the development process begins only if the previous phase is completed.

ITS DESIGN INCLUDES PHASES OF-----

--requirement analysis—all the requirements of the system to be developed are captured

and will be documented.

--design—by taking the requirements in consideration , a design will be prepared which helps

in specifying the hardware and system requirements.

--development—from the design, a system will be developed and integrated . which are

integrated in small units.

--testing—after completion of the software it will be tested to identify the bugs.

--maintainance—after clearing the bugs it will be deployed into the hardware and will be

maintained.

Advantages:

* Easy to use and understand and……. Suitable for small projects.

Disadvantages of Waterfall model:

* 🡪High amounts of risk and uncertainty.
* Poor model for long and ongoing projects.
* Expensive to make changes at end of the project.

**Agile Model:**

In this model, the entire process will be divided into small actionable blocks called sprints.

And then after developing each sprint feedback will be taken from the client and will procede to the next step.

ADVANTAGES:

--client requirements are better understood as there will be a constant feedback.

--and fast delivery of product.

DISADVANTAGES:

--Product will be tested only on developer side and not on production systems

--depends heavily on customer interactions.

DEVOPS:

Devops is an evolution from Agile model of software development.

DEVOPS PHASES:

There are 8 phases in devops namely

* Plan
* Code
* Build
* Test
* Integrate
* Deploy
* Operate
* Monitor

🡪Many companies follow the devops and release more products.

🡪There are many devops tools used for plan code build and for each phase

ADVANTAGES:

Less time is taken to create and deliver software

Less complexity to maintain, continuous integration and delivery ensures faster delivery.

Coming to CONTINUOUS DEPLOYMENT:

CONTINUOUS DEPLOYMENT in the sense, if the build process is executed successfully, then it goes to the next stage. Else it again repeat the build process in case of any errors.

AND THEN , we have installed the java and Jenkins in our laptops.

Jenkins is a open source and automation server in which we can build, test and deploy softwares.

After installation, we have executed some commands in Jenkins.

In this we can build a project as many times as we want and also we can give automatic building of the project also.

We have seen date and time command, dir, change disk(chkdsk), ipconfig and ping commands.