**Oct 24th:**

AWS:

1. EC2 ---used to create instances.
2. Elastic load balancer --- used to balance the load between application , inside application or outside the application
3. Auto Scaling --- gives the facility in case if network traffic goes high and wants to do scaling, it will do a horizontal scaling of the instances. It will try to spin up chances based on the requirements that we passed.
4. EIP (Elastic IP)—whenever we create instances, the IP will be regenerated if we start the machine. Using any production servers, for lower environments, it is fine because we can set some server box and we can use that. But, for production environment the IP should be static, for that we will use EIP.
5. EBS (elastic block storage): in this we create volumes and how to attach those volumes to instances and how to convert them to use and how to detach them, how to create snapshots.
6. AMI (amazon machine image): is used for cloning image of server. If visually my application wants have a particular Red hat machine with particularly dependencies installed like for example Java, gate, SVN etc. Then no need to create an instance and download each and everything manually, there will be one server which is already been installed all the packages, we will create an AMI from that and that AMI will create the instances.
7. IAM – access management – It is the heart of AWS. Here we manage all the users, groups and the services .Here we have

Users, groups, policies and roles.

Policy will be for users. First we create the users. By default in AWS users won’t have access to anything. On requirements, we will assign some policies and based on the policy.

We can customize our policies and can generate, assign group or policies.

Roles will be used for services.

By default, if we want to communicate between one services with other in AWS unless we create the role and attach that role to the service.

If we want to talk to ec2 from s3, we need to have a role

1. RDS- (Relational Database) here we do basic administration task. Here we create a database and creating those mastered password, taking backup and taking replica aurora and for backup role policy and for high availability.
2. Git database
3. S3 is for storage. There are 2 types of storage available in AWS.
4. Elastic block storage ( EBS)
5. Simple S3

Data will be in form of buckets, in EBS we call it as volumes .Here it stores the data in block level. We cannot install OS in S3. We can keep OS files.

If we have any files to be uploaded we can use s3. Using S3 we can create static website also.

Flow of Devops:

Linux is a platform where we are going to use mostly all of the servers. In real time all the servers will be in Linux Platform. Whether it is on premises or on cloud won’t have access to the GUI. All the operations that we do need to be in commands .Those are Linux commands.

We use Putty or Gitbash server to log into Linux instances from windows. So, these Putty and Gitbash will be used to access Linux instances from window laptop.

Git is a version control tool. Developers write the code and they keep code here to track all the changes in versions of code .Here our job is if required will create the repositories and will manage those repositories in GitHub or gitlab where those repositories that we have opted for. Here we can store all the codes inside the GIT.

Jenkins is a continuous integration tool.

For example, we have lot of tools available in our particular project in organization. One client uses a particular Jenkins instances, which should be able to talk to all the tools or all the tools that the project is using. We create those tools with Jenkins and make

Install Jenkins in Windows:

URL to download Jenkins: <https://jenkins.io/download>

There are 2 versions

1. LTS
2. Weekly

In Weekly, there will be fixes happening weekly wise.

Always choose LTS. This is a standard version. There will be a support. Whatever future versions are added in here, they will be added to it.

In LTS press Windows.

And download

We can see 2.73.2 Zip

Java (java 1.8) s the dependency for Jenkins. Make sure its installed.