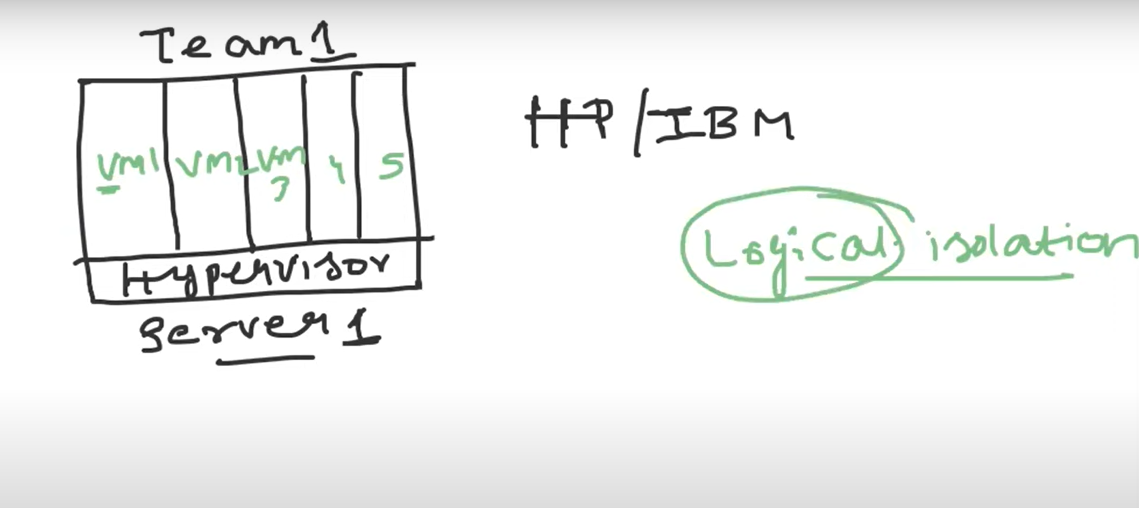
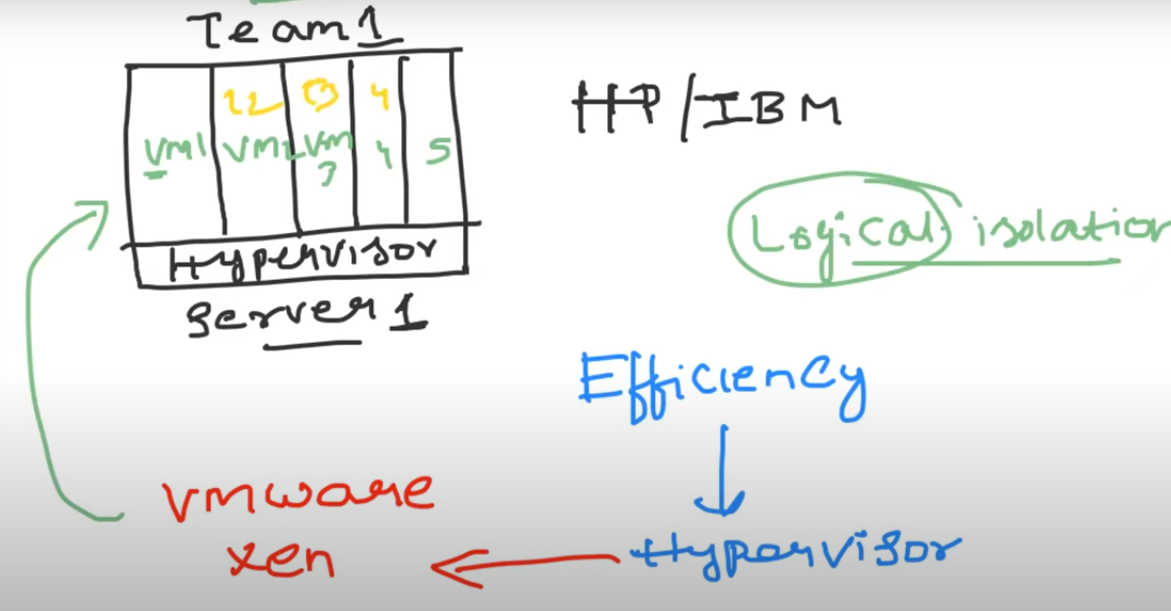


Hypervisor is a software that can install virtual machies on a bare metal or physical servers



They are separated logically but not present physically

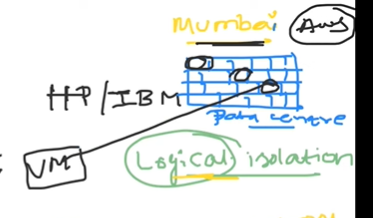


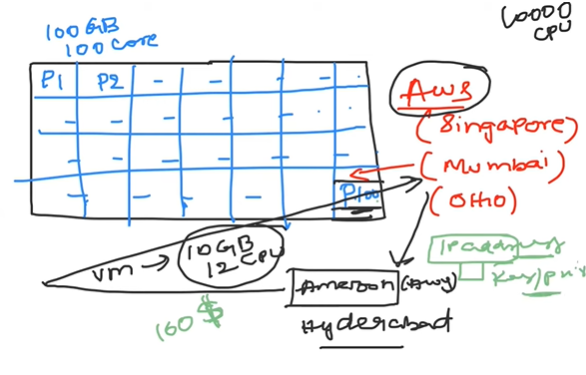
Here comes the efficiency devOPS part where the automation comes in to picture by automating hypervisor so here all the teams can use vms

Popular hypervisors are VMware and xen hypervisor … hypervisor is a key that deals with virtual systems

The process of virtual machines are u basically creating virtual environments by breaking them logically not physically which functions as a virtual computer systems and this virtual computer has their own cpu and ram and they also have their own hardware

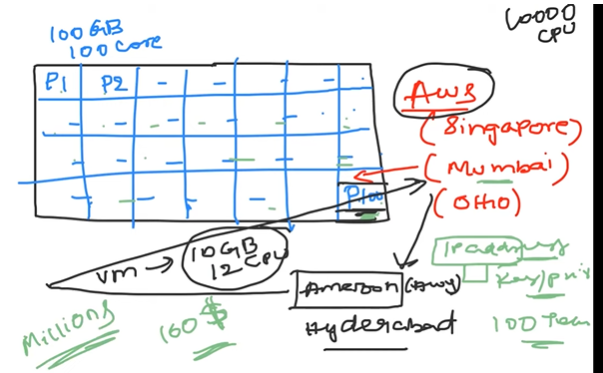
Any cloud build or buy millions or servers and will keep it in their datacenters in their physical servers hypervisor is installed and when ever u want to create an ec2 in aws that hypervisor will create a virtual machine to us



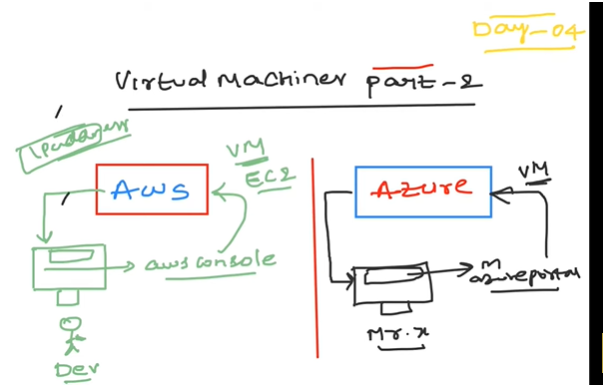


When u want to create a virtual machines in Mumbai and you r requesting it from hyderabad the request will be sent to aws and aws checks the requirement you want and it gives the space where it suitable for you

In general data center is a racks of physical servers where hypervisor is installed



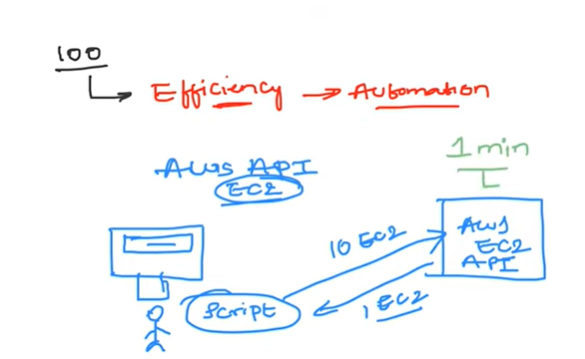
For example there are 100 physical servers in amazon data center generally if we see it should be used only by 100 teams but what really happens is bcz of hypervisor bcz of virtual machines 1000’s of millions of ppl are accessing it … hence it improved the efficiency



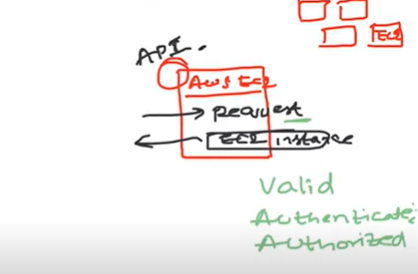
If suppose x wants to create an ec2 instance in aws he will loggin to the console and requests a vm on aws and then aws creates a vm for him

For suppose in your organization u creates a vm’s in your organization daily u will be getting 100 requests of vm’s creations will you sit and create vm’s manually ? no right here comes the automation

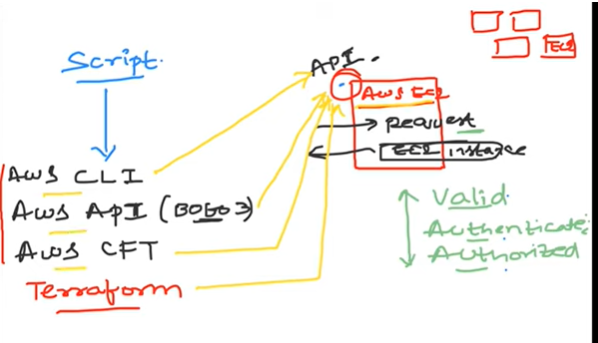
Here comes AWS API



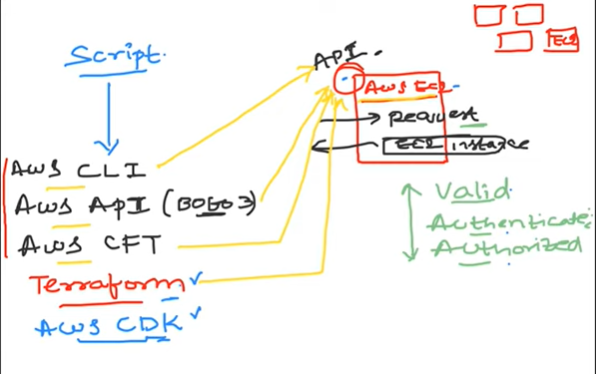
HERE devOps engineer instead of login to the console for creating ec2 machines he will write the script and calls aws ec2 api in that script he mentions he want to create 10 EC2 machines



There are so many services in aws there are developers in aws who develops the services they expose the API’s of that particular services so when the user sends the request to Api of that particular service it should be valid , authorized and authenticated and then amazon validates it and cretes a ec2 instance and send the response to the customer who raises the request



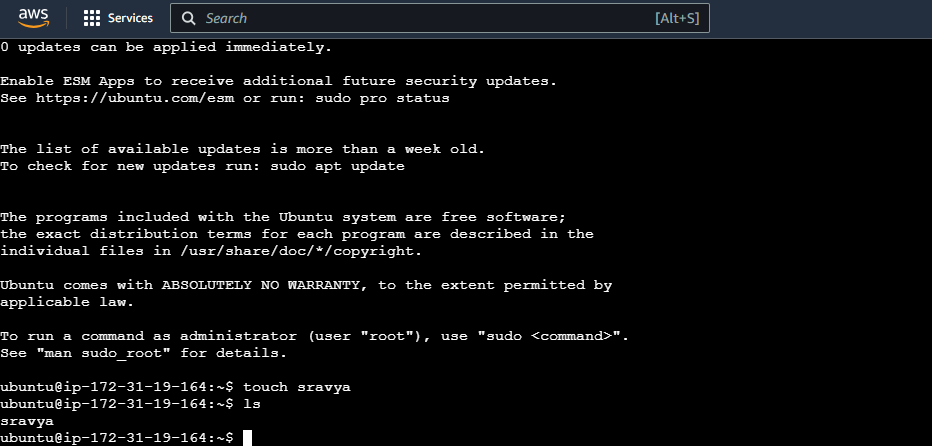
As a devOps engineer you automate the process of creating the ec2 instance by creating scripts using AWS CLI, AWS API(Boto 3) , AWS CFT Or terraform and call API with valid , authenticated and authorized request and then aws creates an ec2 machines



AWS CDK Is the proprietry tool of aws so if you want to stick to aws only aws cdk is enough

And if your organization is having hybrid cloud then terraform is used

Create and instance in aws console and connect with it directly and that



This session wouldnot be last longer if you want to get your things saved

Use mobaxterm ,nomachine or putty if you r using windows for free version in mobaxterm u can save details for 10 servers

To connect the instance through mobaxterm give public ip of that particular server which you have created and give private key file then session gets logged in

AWS CLI : AWS Command line interface is a interface which is used to connect to api calls of any service and also used for automating the process without using console

Install aws on your system and then configure credentials by typing aws configure

Access key : \*\*\*\*\*\*

Secretaccess key: \*\*\*\*\*\*\*\*

Region:

Default format :

After giving this details u r authenticated to aws

* To check just type aws s3 ls to know the bucket list in ur act
* To create bucket from cli aws s3 mb (sbucketname)