		Linux Commondo		
	u	Linux Commands		
Commands	Use			
apt-get update	chack if there are any nackages evallable for undate?			
sudo apt-get check sudo yum clean all	check if there are any packages available for update? to clear the cache information from the cache directory			
sudo -l	login with root user			
id Is	Information of logged in user listing files and folder 's			
Is -It	its shows all details			
Is -l filename	It is shows the all about particular file shows present working directory'			
exit	logout from current user			
clear cd	clear the screen chnage diectory			
mkdir	make directory			
mkdir-p mkdir example{1.2,,4}	folder under folder (Parent) this command makes make a folder name as follows exampl1, example2, exampleexample4			
mkdir exampte{1,2,,4} mkdir ex{110}	this command makes make a folder name as follows example, example2, example, example4 this command create directory of name ex1 to ex10 total 10 directories			
rmdir	remove directory			
rmdir ex* file filename	to delete all folder with prefex determines the file type			
same directory	change to parent directory one step prev			
od/ od .	change to parent directory two step prev It will shows same directroy/ current location			
cd ~	used to change current directory to users home directroy			
touch cat filename	it will create file read file on your console			
cat file1 file2	it will combine all files and show output			
cat -s filename cat -b filename	it will remove blank line and make one line it will sho lin numbers but only for given lines			
cat -n filename	it will show all lines number including blank lines			
cat -E filename tac -> cat example.txt tac	It will show end of file with sign \$ reverse of cat			
vim	1. vim myfile 2. shift 3.Esc 4.Shift + : wq! q! exit without saving file			
to delete line in vim %s/oldword/newword/ac	esc + : then dd to replace a word in vim editor			
ping (Packet Internet Groper)	to replace a word in vim editor to connect with url It checks connectivity between two nodes to see if a server is available.			
Ping -c 5 <u>ygminds.com</u>	it will sent 5 packets to url and give information	An area and a second se		6
netstat- a tree	Linux netstat command stands for Network statistics. It displays information about different into Herachy folfder structure	rrace statistics, including open sockets, routing tables, and	connection in	irormation.
echo	print statement			
echo "how" >> filename echo "how" > filename	To add contain in file To replace contain file			
history	To see history which commands we used			
history -c cp		cp file1 foldername		
cp mv	copy move / cut paste	mv file foldername		
mv Is folder/	rename details of that folder	mv old name newName		
Is folder/	details of that folder to display all details/ Commandline argumnet			
ls -l file_name				
man is wget	To see manual for download from internet	wget www.google.com		
id	it will show id od user logged in	mgc. mm.gaaga.com		
chmod chown	to change owenship chmod 777 filename we chnage more than one file ex chmod 755 fil1 fil2 file3 change owner			
chgrp	change group			
groupadd new_group	to add new group			
usermod -a -G new_group existing_user usermod -a -G new_group,new_group2,new_group3 user_name	To add an existing user to the newly created group, use the usermod command with the -a -G options: If you want to add a user to multiple groups at once, you can use this command			
passwd	password reset and password change			
su usermod	switch user user modification			
to find log	go to var folder in that we find log folder			
cat auth.log grep "ubunto" cat auth.log grep -i "ubunto"	command to search anything command to search anything -i for case sensitive	this command is noit casesensitive this command is case insensitive		
head auth.log	to display top 10lines			
tail auth.log head -15 auth.log	to display bottom 10 lines to display top line which you want			
tail -15 auth.log	to dispolay bottom lines which you want			
more auth log	it will show % how much file is read it will less the file % read			
ifconfig	to get ipadress and all information			
hostname -i ifconfig eth0	to get ip address only Get details of specific interface			
traceroute	traceroute <u>vaminds.com</u> The traceroute can display the routes, IPaddresses, and hostnames of routers over a	network.		
tracepath dig (Domain Information Groper)	tracepath ygminds.com It traces the network path of the specified destination and reports each hop along the		our network is w	reak.
nslookup	domain onformation . this command is used dns related query domain information. this command is used dns related query	dig www.ygminds.com dig www.ygminds.com		
findname "*.log"	to find file	findname "au*.log" find file within directly		
locate date	locate auth.log to display current date and time	to locate file all over machine it will show utc time add 5:30 to get indian time		
apt-get check	to check anything update			
apt install nginx apt list	to install packeage list packeheges			
apt listinstalled	show installed packeges			
apt remove nginx nginxversion	remove/uninstall package to check version			
systemctl start nginx	to start service			
systemati status nginx systemati stop nginx	to check status to stop service			
systematl restart nginx	to reastar service			
yum check update yum install vsftpd	amazone linux commnad to amazone linux commnad to			
yum remove vstpd	amazone linux commnad to			
yum list yum info vsftpd	amazone linux commnad to amazone linux commnad to			
cut -d ' ' -f2 filename	extract sections from ech line d = delimeter , '' = seprator			
cut -b 2 filename cut -c 1.6	extract section with bites extract section with characters			
comm file1.txt file2.txt	it compares two file or streams			
echo class1 class9 sed 's/class/devops/g' sed '3s/Red/Blue/' filename	this commands change or replace words it will change			
cat filename.txt sed '/word/d'	it will remove hole line which word is existed			
sed '1,3s/red/blue/ filename	command will update the specified text in lines 1 and 3.			
sed -i '1,3s/Red/Blue' filename sed '3c'we are lerning Inux' filename	command will update the specified text in lines 1 and 3. this command wil insert data command will update the line three.			
sed -i '3clwe are learning linux' filename	command will update the line three. command will update the line three. this command wil insert data			
wc filename	to count lines words letters			
wc file1 filw2 wc -1 filename	to count two files words letters lines to count letters			
wc -w	to count words			
awk '{print \$0}' filename awk '{print \$1}' filename	to print as it is its work like cat command this command print colmun 1/ we can print specific column			
awk '{print \$NF}' file5	this command print last column			
awk '{print \$1}' file5 head -3	You can also specify the line you want printed from your chosen column using this command to get with line numbers			
awk '{print NR,\$0}' file5	to get with line numbers this command used to display disk space			
df				
df-i	command can be used to check how many inodes are free and left unused in the filesystem.			
	command can be used to check how many inodes are free and left unused in the filesystem. this command used display disk space in human redable format this command used displat disk usage			
df-1 df-1h du du du -th	this command used display disk space in human redable format			
df-l df-h du	this command used display disk space in human redable format this command used displat disk usage			

dd dolername 10 Is -8tah / Is -8thr 3 Is -8tah / Is -8thr 3 Is -8tah / Is -8thr 10 Is -8thr		olabie	
of Joddermane 10 is -Irsta' I is -shirt all js -aux 10 ps -aux grep nginx 10 is 10 10 yes - yisevinuli & ge stress 5 uname 10 uname - I 10 in filename hard, link 10 in - sitenams sott, link 10 tar -cx/f file tar gz fe bat it is tar -cx/file tar gz fe bat tar -xx/f file tar gz fe bat it is tar -xx/file tar gz fe bat into tar -sx/file file far gz fe bat it is tar -xx/file far gz fe bat rename the file file file file file file file fil	open hidden foder i information incliding hidden foder check how many process unnings get perfuciular service with process unnings get perfuciular service with process grantings get perfuciular service with process grantings get here data of process runnings get here data of process runnings get here data of process runnings get here and information or perfut hard information or orace shard link of file. In this we can in one file it will upodat ein both. If we delete original file still hardlink is avour orace shard link for file. In this we can in one file it will upodat ein both. If we delete original file still hardlink is avour orace shard link for file. In this we can in one file it will upodat ein both. If we delete original file still hardlink is avour orace shard file for file for backup will make zip file for for for such file zip file for for for file zip file for for for file zip file for file zip file zip file file zip fil	salable	
Is-Irah / Is-ahirt	Il information incliding hidden tolder observed by the control of	alable	
ps -aux grep nginx	check how many process runnings or get period are service so get period are service so get period are service so get here data of process runnings enerote artificial lead of process runnings enerote artificial lead of process runnings enerote artificial lead of process of the service so get kernal informeration or oreat ehard link of file. In this we can in one file it will upodat ein both. If we delete original file still hardlink is avoir oreate soft link/shortout. In this if we delete coriginal file at will soft link also. will unusp file e can show data of zipped file using this command is command will resent our machine is command will resent our machine on this command will resent our machine.	stable	
ps -aux (grop nginx to p to p to p to p to p yes > /derivalit & ge stesses uname to p to p to p stesses to p to	opt perfoldular service All process get live data of process runnings enerate artificial load pet username get username user	salable	
	self process get live data of process runnings enerate artificial laod get usemame get kernal informemation create shard link of file. In this we can in one file it will upodat ein both. If we delete original file still hardlink is avu create soft link/shortout. In that aft we delete eoriginal file et will soft link also. will make zip file for backup will unzip file e can show data of zipped file using this command is command shutdown our machine is command will researt our machine in this command will researt our machine	slable	
top to yea - Klewhull & ge stress uname uname - I to y in filename hard link to in in filename off_ink to in to stress to stress tar -czvf file tar gz fe bct if v rar -vzvf file tar gz fe bct if v inflo th inflo th inflo th free th rename use stbin/bash sh	get live data of process runnings enerale artificial laod get username get kernal informernation occurrent and the control of	alable	
yes - / devirual & get stress uname 10 In filename hard_link 10 In filename hard_link 10 In filename soft_link 10 In filename In yet In yet	oget usemanne get kernal informemation create shard fink. In this we can in one file it will upodat ein both. If we delete original file still hardlink is avv create shard fink of file. In this we can in one file it will upodat ein both. If we delete original file still hardlink is avv create soft inks/shortout. In that afte delete eoriginal file et will soft link also. will make zip file for baskup will unzip file te can show data for zipped file using this command is command shutdown our machine is command will resent our machine on this command will resent our machine	salable	
	opet username opet suren all robmemation will make any file for backup will make any file for backup will make any file for backup will make prife file file file opet file file opet file file opet file op	salable	
uname 10 uname - 10 10 in filename hard_link 10 in filename soft_link 10 tar -cavf file tar go file but it v rar -avxf file tar go file but it v zoat plopedfilename we intel this sco - p mfile filename server / path / from free this reging us stbin/bash sh	oget kermal informermation or care aherd link of file, in this we can in one file it will upodat ein both. If we delete original file still hardlink is avo or casts so think/shortout, in thi eff we delet eoriginal file it will soft link also. will make zip file for badout will unzip file e can show date of zipped file using this command is command shutdown our machine is command will resent our machine on this command will resent our machine	alable	
uname -r 10 in felename hard_link 10 to in -s flename soft_link 10 to r -czvf flie tar gz fle bd it w tar -czvf flie tar gz fle bd it w int0 it w int0 ibh int6 ibh free ibh rename use stbin/bash sh	oget kermal informermation or care aherd link of file, in this we can in one file it will upodat ein both. If we delete original file still hardlink is avo or casts so think/shortout, in thi eff we delet eoriginal file it will soft link also. will make zip file for badout will unzip file e can show date of zipped file using this command is command shutdown our machine is command will resent our machine on this command will resent our machine	alable	
In file-name hand_link	o creat early tink of the. In this we can in one tile it will upodate in both. If we delete original file still hardlink is aw oretes soft inhishorboru. In this aft we delete coriginal file at will soft link also. will make zip file for backup will unzip file e can show data of zipped file using this command is command shutdown our machine on this command will resett our machine on this command we can past file from our laptop to virtual machine. Secure copy protocol	alable	
In -s Henma soft_link tor -czvf file tar gz file tot tar -czvf file tar gz file tot int0 tint0 tint0 tint6 tint6 tint6 tint6 tint6 tint6 tint6 tint6 tint9 tintents tint9 tint	o create soft link/shortox. In this after dedete conginal fill et will soft link also. will make zip file for badup will unzip file e can show date of zipped file using this command is command shutdown our machine is command will reset our machine on this command will creat our part file from our laptop to virtual machine Secure copy protocol	adule	
## care file Later gat file Later gat file Later gat file at a gat file	will make zip file for backup wil urzip file e can show data of zipped file using this command is command shutdown our machine is command will reastr our machine mit command will reastr our machine mit command we can past file from our laptop to virtual machine Secure copy protocol		
tar -xxxf file fast gz It w cand apped filename we we intil intil 6 this intil 6 sop - pmfile filename server / path / from the report this report rename use #Usin/bash sh	will unzip file e can show data of zipped file using this command is command shutdown our machine is command will resert our machine on this command very each or an earthine on this command very each past file from our laptop to virtual machine Secure copy protocol		
zoat appedflename we he	re can show data of zipped file using this command is command shulfdown our machine is command will reastrt our machine om this command we can past file from our laptop to virtual machine Secure copy protocol		
Initial	is command shutdown our machine is command will reast our machine om this command will cast our machine om this command we can past file from our laptop to virtual machine Secure copy protocol		
Initis Sup- Jumile filename server / path / for face the sup- pmile filename server / path / for face the sup- sup- sup- sup- sup- sup- sup- sup-	nis command will reastrt our machine om this command we can past file from our laptop to virtual machine Secure copy protocol		
sop - pmfler flename server / path / fro free this regner trayer use server server the free this regner trayer the free this regner trayer the free free free free free free free fr	rom this command we can past file from our laptop to virtual machine Secure copy protocol		
free this raync using the state of the state			
reync rename uss #!/bin/bash sh		scp -i "Young Minds.pem" ex.txt ubuntu@ec2-65-1-112-10.ap-sout	th-1.compute.amazonaws.com:/tmp/
rename use #!bin/bash sh	nis command shows free memory of machine		
#/bin/bash she			
	sed to rename file folder		
	Shell Script Commands		
	hebang		
	o get linees in vim		
	o run shell script file		
	ommand used to set environment variable export name = value , export new_var = 10 , echo \$new_var		
-Z			
-f			
	o check previous comment is correct or not . It will shows 0 if previous command is successfull otherwise non zero	o value.	
stress -cpu 8 -timeout 60s			
echo \$PATH			
	will show path where the package files		
which nginx			
rm -rf filename			
	Cloud Shell		
Command for Launch instance using Cloudshell aw	ws ec2 run-instancesimage-id ami-03f4878755434977fcount 1Instance-type t2.microkey-name ec2ser	curity-group-ids sg-0cec412505d3f5992subnet-id subnet-0c978a	a693130a76c7
	was eduction in its ances and an advanced of the control of the co		
	ath of execution/ Sequence of the flow of tasks within the process / Single sequence stream.	p. sant sent contractor to po. so pripi	, , p p g
uncuo pui	autor executions dequested of the now of tables within the processor only a sequence stream.		
	00		
	S3		
aws s3 is sho	how list of bucktes		
aws s3 mb s3://ec3bucketshubhamregion us-east-2 to	o make bucket		
	will remove bucket		
aws s3api list-object-versionsbucket shubhamec2bucket			
aws s3api list-object-versionsbucket shubhamec2bucket			
aws s3ani delete-objectsbucket hatch23bucketdelete "\$(aws s3ani list-obje	ject-versionsbucket batch23bucketoutput json jq '{Objects: [.Versions[] {Key:.Key, VersionId:.VersionId}], C	Quietfalse)'\"	
ah soup delete objects obtained batter octaine of this soup has object	bove command is to remove versions	additional y	
aws s3 is s3://bucket9545/recursive to	get all data inside bucket		
	o upload folder from windows to aws s3 bucket		
aws s3 sync s3://bucket1 s3://bucket2 to	o move data from one bucket to another		
,			
dpkgget-selections to:	o see all packages		
uping -get-selections			
	EBS Practical		
create ec2 instance and connect			
create volume and attach to ec2 instance through console			
	see existing partition		
	nake this folder		
	o see disks		
	enter inside partition format		
m to	o get help		
	o create new partion		
p for	or primary		
w to	o save		
partprobe to:	o see any problem in partition		
	will create xvdf1 under xvdf		
mount /dev/xvdf1 /tmp/videos it w	will mount		
vim /etc/fstab edi	dit this file		
	dev/xvdf /tmp/videos xfs default 00		
	IAM		
	IUIAI		
	ELB		
Practical Steps			
create security group (You can use existing security group also)			
	//bin/bash		
	um update -y		
	um install httpd -y		
	ervice httpd start		
	hkconfig httpd on		
	d /var/www/html		
ec	cho "This is server-2" > index.html		
	hoose target type- instace		
	ame> fill as per your requrements		
Ne	lext		
	hoose your instances		
CIFE	reate target group		
	egister targets		
	cluded as pending		
	egister pending targets		
ies			
4. Create Load Balancer nai	ame load Balancer		
ch	hoose internet facing / Internet (choose as per your requirement)		
	elect vpc/AZ		
	elect vpc/AZ		
	reate load balancer		
	heck with DNS		
5 Check			
5 Check che			
5 Check ch	Autoscalling		

			CloudTrail
Steps	scene-1		
1	Launch 1/2 Ec2 intsnaces		
2	Go to CloudTrail		
3	Create Trail		
4	Trail Name		
5	Choose Buvket	New Bucket / existing B	ucket
6	Next		
7	Go to bucket you will se logs	inside bucket	
	_		
	scene-2		
	Go to cloud trail		
	Go to event History		
10	we see activity details here.		
	scene-3		
11	Create SNS topic and Subsc	ription	
12	Create Cloud Trail		
13	Select Bucket		
14	Select Management Event (F		
15	SElect Data Events		
		Data Event Type s3	
		Log Selector Template	Log All Events
16	Cloud watch Logs		
		Cloudwatch logs -> Ena	bled
		Log Group Name	
		IAM Role	
17	Cloudwatch-group		
		Filter matric	
		Assign Matric	
18			

				S3														
aws s3 is	show list of bucktes																	
aws s3 mb s3://ec3bucketshubhamregion us-east-2	to make bucket																	
aws s3 rb s3://ec3bucketshubham	it will remove bucket																	
aws s3api list-object-versionsbucket shubhamec2bucket																		
aws s3api list-object-versionsbucket shubhamec2bucket																		
aws s3api delete-objectsbucket batch23bucketdelete "\$(aws s3api list-obj			bjects: [.Versions[]	{Key: Key, Vers	sionId:.VersionId)],	Quiet:false)")"												
	above command is to remove v	rersions																
aws s3 ls s3://bucket9545/recursive	to get all data inside bucket																	
aws s3 sync C:\shubhamReact s3://bucket9545	to upload folder from windows	to aws s3 bucket																
aws s3 sync s3://bucket1 s3://bucket2	to move data from one bucket	to another																
dpkgget-selections	to see all packages																	
Q1	How can you lock the Object in																	
	In AWS S3, you can lock object	ts using Object Lock	c Object Lock provi	ides two differen	t retention modes.	Governance Mor	de and Compliano	e Mode, to enforc	e retention policie	s for objects. Once	e an object is lock	ed, its retention n	ode cannot be ch	anged, and the ob	ject cannot be de	eleted or overwritte	on until the retention	an period expire
steps																		
	1 create bucket enable object																	
	2 go to permission tab you get o																	
	1 Governance		ific IAM permission					n period.										
	2 compliance	No users can or	verwrite or delete po	rotected object v	versions during the	retention period.												

		POD								
# kubectl create -f pod-defination.y	nl									
# kubectl get pod										
# kubectl describe pod nginx										
# kubectl get pods -o wide										
		DEDLICATION								
# I - b - d b - f 7 d d		REPLICASET								
# kubectl apply -f repilcaset.yml										
# kubectl get rs										
# kubectl describe name										
		DEPLOYMENT								
# looks at annie f danie mant dafin	ation cont	DEPLOYMENT								
# kubectl apply -f deployment-defin	ation.ymi									
# kubectl get deployments										
# kubectl rollout status deployment		ent								
# kubectl rollout history deploymen	S									
				Create (Cluster					
Step 1- Create a EKS cluter with N	ode.									
Step 2- Configure AWS CLI										
Step 3- Download and install kubed	ti									
Step 4- Follow below document to	ıse eks									
https://docs.aws.amazon.com/eks/		reate-kubeconfig.	html							
step 5-										
create pod.yml and add code for po	d.yml									
kubectl get pods										
kubectl get nodes										
kubectl create -f pod.yml										
kubectl get pods -o wide										
pod.yml										
apiVersion: v1										
kind: Pod										
metadata:										
name: todo-pod										
spec:										
containers:										
- name: todo-app										
image: ubuntu:latest										
ports:										
- containerPort: 8000										
kubectl create namespace my-nam	espace									
kubectl apply -f namespace.yml										
kubectl get namespaces										
kubectl get pods -n home-load-dev										
Namespace i kubernets	To access and m	nanage we use na	mespaces. It spr	ovide us isolation,	Resourse Qutota	,				
Heathcheck and Livenessprobe										
Components of Kunernets										
Components of Master Plane	Api Server	ETCD	Sceduler	control manager						
Components of Node	Kubelet	CAdviser	Kube-proxy	kubectl	pods					
API Server	Api server			ane and node is o	ontolled by Api Se	erver.				
		hly available we o								
	validates and co	nfigures data for A	API object which i	nclude pods, serv	ices, replication or	ontroller.				
loube many	Mana "	unaddac - 4								
kube-proxy	Manages all net	working rules.								
CAdviser	Manage Contain	or porformen								
Onuvisti	wanaye Contain	ioi perioritiens								
pods										
pous										
kublet	take request from	m sceduler and cr	eates pods							
numet	www.rednact.ttot	Joequier and th	carco pous							
k8s Features										
Load Balancing										
Storage Orchestartion										
Automating in Rollouts and Rollbac	ks									
Self Healing										
Secret and Configuration managen	ent									
Horizontal Scalling										
g										
Rollout / Rollback										
kubectl rollout undo deployment/my	-ann									
Jour rouse and acproyment/III	-44									
K00 1100 0000										
K8s use cases										
Emulate production on locally.	00									
K8s use cases 1. Emulate production on locally. 2. Move from docker compose to K 3. Create an end to end testing env										

Ensure application scales prope	rlv.												
5. Ensure secrets/configs are work													
6. Performance testing scenarios													
7. Workload scenarios (CI-CD and	more)												
8. Help devops to create resources	s and solve problems	s.											
Deployment Strategy													
1	Recreate												
2	Rolling Updates												
Service Types:													
ClusterIP: Exposes the service on													
NodePort: Exposes the service or													
LoadBalancer: Exposes the servi	ce externally using a	cloud provider's	load balancer. If	is the most comm	non way to expos	e services to the i	nternet or externa	I networks.					
Namespaces	In Kubernetes, a na	amespace is a w	ay to logically pa	rtition a cluster in	to virtual sub-clus	ters. It essentially	creates a scope t	or organizing and	managing resour	ces within the clus	ster. Here's how n	amespaces benefi	t you:

	Project -1
1 terraform-code-to-create-jenkins-server	Clone this code from ygminds repo and run terraform init, plan and apply
2 IAM	
1. Roles	
2. create Roles	
3. service and use case	EC2
4. Administrative Full Access	
5. Role Name	Project-Admin-Access
3 Assign Role to EC2 Machine	
1. Select EC2 machine	
2. Go To Action	
3. Security Group	
4. Modify IAM Role	
5. Select IAM Role	
6. Update IAM Role	
4 Terraform Automation	
1. Create New folder and clone repo Terraform Automation in it.	
2. Create Bucket in S3 with name given in backend.tf file	
	3
5 DynamoDB Table Creation	
1. Tables	
2. Create Table	
3. Name	
4. Partiion Key	LockID
5. Create Table	
6 Take acces of EC2 and open jenkins	
1. open Jenkins	
2. create pipeline	
3. Select Pipiline Script from SCM	
4. Select Glt	
5. Enter URI Of Repository	
6. Set parameter/ Choice parameter	
7. action -> pamn , apply	
8. Apply and save	
9. Now Build	

lm	portant Terrafo	rm Command								
terraform init		used to initialize a working directory conf	aining Terraform conf	iguration files						
terraform validate	terraform validate comma	nd validates the configuration files in a di	ectory, referring only	to the configuration an	d not accessing any re	mote services such as re	mote state, provider A	Pls. etc.		
terraform fmt	The terraform fmt comma	nd is used to rewrite Terraform configura	tion files to a canonica	I format and style.	,					
teraform plan	The terraform plan comma	and is used to create an execution plan. T	erraform performs a re	efresh, unless explicitly	disabled, and then de	termines what actions a	e necessary to achieve	the desired state specified	I in the configurati	on files.
terraform apply		nand is used to apply the changes require								
					. , ,					
terraform document	https://docs.google.com/docum	nent/d/1Jtt9uoRxmO_Y0sFwellMpCTg1ddHhm1	XT62Zy7yDYa8/edit?usp	=sharing						
		0 (1)		- (
	Some of the most useful Terraform commands are:									
		terraform init - initializes the current director	у							
		terraform refresh - refreshes the state file								
		terraform output - views Terraform outputs								
		terraform apply - applies the Terraform code								
		terraform destroy - destroys what has been								
		terraform graph - creates a DOT-formatted								
		terraform plan - a dry run to see what Terra	orm will do							
Meta Arguments	Meta arguments in terraform a	re special arguments that can be used with reso	urce block and modules to	o control their behaviour or	influence in the infra prov	visioning process.				
count	allows you to create multiple in	istances of resources based on a count value. It	is useful when you want t	to create multiple similar re	sources without duplicating	ng the configuration block				
						J				
for each										
		Terraform Workspace	e							
terraform planvar-	file dev-terraform.tfvars	·								
terraform workspace	list									
terraform workspace	new workspace_name	create and switch to workspace								
terraform worksapad	e snow									
terraform applyaut	o-approvevar-file dev-terrafori	m.tfvars								

1 apt-get update					
2 apt install doc					
apt install doc	•				
docker pull ce					
docker images			it in interactive to	arnote container and lanin hard	a container
aocker run -it	name cont-1 ubuntu /bin/bash		-ιτ is interactive terminal	create container and login inside	e container
	command is used to list all warning containers on your system				
docker ps	command is used to list all running containers on your system	it will show only i			
docker ps -a	If you want to see all containers (including stopped ones), you can add the -a flag,	running / stop bo	th container		
docker start	to start container				
docker stop	to stop container				
docker search		to search image			
	name jenkins -p 8080:8080 jenkins/jenkins		d is detach mode	just create container dont login	port forwarding 8080:808
docker start <	container id.>	to go inside cont	ainer		
	Create docker file				
#name of the	base os				
FROM Ubuntu	ı				
#owner or ma	intainer of image				
MAINTAINER	"shubhamkamble0809@gmail.com"				
#installing ngir	nx on ubuntu base os				
RUN apt upda	ate -y && apt install nginx -y				
#exposing por	t 80				
EXPOSE 80					
	x container with nginx servivce				
CMD ["/usr/sb	in/nginx"]				
	Create Image				
	docker build -t nginx .				
	Create Container				
	docker run -itname my-nginx-cont nginx /bin/bash				
	docker images -a -q				
	docker rmi -f \$(docker images -a -q)				
	docker stop \$(docker ps -a -q)				
	docker start \$(docker ps -a -q)				
	Docker Composer				
	install Docker composer				
	1 sudo curl -L "https://github.com/docker/compose/releases/download/1.29.0/docker-compose-\$(unan	ne -s)-\$(uname -m)"	-o /usr/local/bin/docker-c	ompose	
	2 sudo chmod +x /usr/local/bin/docker-compose	, , , (2.12.112 11.)			
	3 sudo ln -s /usr/local/bin/docker-compose /usr/bin/docker-compose				
	4 docker-composeversion				
	5 start all containers - docker start <container id=""></container>				
	6 docker-compose up				
	7 check with public ip on port 8000				
	Docker Volume				
	Type1- container to container volume sharing	Code inside docl	ker file		
	1 create dockerfile	FROM ubuntu			
		volume /volume1			
	2 docker build -t batch23 .	images builded			
	3 docker run -itname cont1 batch23 /bin/bash	it will create cont	ainer		
	4 start conatiner and create folder and file inside volume			Land to a series	
	5 docker run -itname cont2privileged=truevolumes-from cont1 ubuntu /bin/bash	to create another	container with same volu	ime inside cont2	
	6 check volume				
	tune?				
	type2 docker run -itname cont3 -v /volum2 centos /bin/bash	we created one	container and volume usir	ng command	
	GOOKER THE THAINE CONTO TO AVOIDING CENTOS AND MODELLE	we diealed offe (Antamer and volume USII	iy coninana	
	type3				
	docker run -itname cont4privileged=truevolumes-from cont3 centos /bin/bash				
	222.2				
	type4				
	echo \$HOME				
	out of tome				
	Dealess Deat Francisco				
	Docker Port Forwarding				
	docker run -d -name jenkins -p 8080:8080 jenkins/jenkins				

		Install Jenkins on Ubuntu
1	Launch EC2 Instance	
2	Take Access of EC2 instance	
3	open port	ALL TCP/ALL Traffic
4	sudo apt update	it will update system
5	java -version	check javav is instales allredy or not
6	apt install openjdk-11-jdk -y	install jdk 11
7	again check java vesion	java -vesrion
8	install jenkins on ubuntu	Serch on google you will get steps. long term support relese
9	follow steps	
10	apt get-update	
11	apt install jenkins	
12	chek with Public ip and port 8080	
13	/var/lib/jenkins/secrets/initialAdminPassword	go to this path and copy password
14	choose install sugested plugins	
15	create first admin user	
16	save and finish	
		Launch Job On Jenkins
	steps	
	1	Login to Jenkins dashboard
	2	New Item
	3	Enter Name
	4	select job type
	5	Delete workspace before build starts
	6	
		Create Node on Jenkins
1	create EC2 and install jdk 11 on ec2	
2	Open jenkins poratal	
3	Go to Manage Jenkins	
4	Go to nodes	
5	Add node	
6	Add name and description	
7	Add number of Executors	this number denote how many jobs can build one time.
8	Add Label	This label i again used in pipline
9	Usage	use this node as much as possible
10	launch method	launch agent via ssh
11	Host	add dns of node machine
12	credititials	Add jenkins
13	global creds	
14	ssh usename with private key	

15	username	ubuntu
16	add private key from .ppk file	
17	save	
18	accept trusted host key	

{"name": "sh {"name": "ra {"name": "sh	me"},					
]						
		yml				
name : Ram age : 29 city : Ajara						
name : sham age : 20 city : Pune name : Ram						
age : 28 city : Kolhapur		json				
				Ansible		
steps						
1	Create Ansible Master EC2					
2	Create Ansible Node EC2					
3	install python on master	apt-get install py	thon3/ in master			
4	sudo apt-get update	in master				
5	apt-get install software-properties-common	in master				
6	apt-add-repository ppa:ansible/ansible	in master				
7	apt-get update	in master				
8	apt-get install ansible	in master				
9	check ansible version	in master				
10	cd /etc/ansible	in master	in master path of ansible.cfg			
	cd /etc/ansible/host	in master	ter inventory file host file			
	create passwordless connectivity between master and node					
	ssh-keygen -t rsa			directory on maste		
	cd /root/.ssh/	run this comm a	nd under ansible	directory on maste	public key is sav	red here
	take acces of node machine cd /root/.ssh/					
	vim authosrised key					
	copy id_rsa.pub key from master and paste under authorised key in node					
	Go to master host file	cd /etc/ansible				
	add ip adress of node and save	ou / oto/ alliololo				
	ansible -m ping all					
		Adhoc	Commar	nde		
4	ansible all -m copy -a "src=/etc/ansible/hosts dest=/var/"					
	ansible all -m copy -a src=/etc/ansible/nosts dest=/var/ ansible 172.31.85.108 -m shell -a "ls -lrt /"	copy master to r	ioue			
	ansible 172.31.65.106 -III shell -a is -III 7 ansible all -m yum -a "name=git state=latest"become	install package i	n node			
	ansible all -m apt -a "name=git state=latest"become	install package in node				
		meter partings				

		Git Hub								
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	Auth key git									
apt install git -y										
git clone <url></url>	Git clone creates a linked copy that will continue to s	ynchronize with the ta	get repository.							
git pull										
git commit -m 'message'										
git add .										
git status										
git log										
git push <url></url>										
git branch										
git checkout -b REQ123										
git configglobal user.name "Shubhamkamble408"										
git configglobal user.email "shubhmkamble408@gi	mail.com"									
git logformat='%aN <%aE>' sort -u										
git config user.name										
git config user.email										
git push origin REQ123:main										
jit pull origin main	to pull from main branch									
jit fork	Git clone creates a linked copy that will continue to synchronize with the target repository.									
	A fork is a rough copy of a repository. Forking a repository allows you to freely test and debug with changes without affecting the original project. One of the excessive use of forking is to propose changes for bug fixing.									
it fetch	Git Fetch is the command that tells the local reposito	ry that there are chan	ges available in	the remote rep	ository without	t bringing the c	hanges into the	local repository	/.	
it pull	Git Pull on the other hand brings the copy of the remote directory changes into the local repository.									
it push	Push operations copies changes from a local repository instances to a remote or central Repo this is used to store the changes permanently into the GIT repository									
Repository	Repository is a place where you have all your code or	r kind of folder on serv	er							

Steps			
	create Dashboard		
2	dashboard name		
3	select Graph		
4	copy instance id and search		
5	click on ec2-intsance parameters		
6	select parameters		
7	create widget		
			SNS
1	Create topic		0.10
	Standard		
		HighCPU	
	Create topic	riigiioi o	
	create subscription		
	Topic ARN	select from list	
7	protocol	email	
	endpoint	oman .	
	create subscription		
	confirm subscription	email	
	Again go to Clouwatch		
	Alarms		
13	create alarms		
14	select matric		
15	search with instance id		
16	ec2 instance parameters		
17	select parameters		
18	select matric		
19	static		
20	greater than equl to		
21	trashhold value		
22	select SNS topic		
23	choose action	eg. terminate ec2	
24	Alarm name		
25	create alarm		

Vlookup Formula	=VLOOKUP(H6,A2:D1730,4,0)	
		Database
Data	Data is Raw fact which describes atributes on an entity.	
Database	It is place or container used to store the data in systymatic and organised manner.	
DBMS	It is software used to maintain and manage the database.	
Query Language	To communicate with the database we can use query language. example-SQL	
TYPES Of Database	Relational, Non-Relational database, Hierarchical, Network, Object-Oriented	
SQL	It is the language used to communicate and manipulate data in RDBMS and Table.	

	Launch	Ubuntu	Instance	with NC	XNIE
#!/bin/bash					
sudo apt update					
sudo apt upgrade -y					
sudo apt install nginx -y					
sudo systemctl start nginx					
sudo systemctl enable nginx					
cd /var/www/html					
rm index.nginx-debian.html					
echo "This is server" >> index.html					
or					
echo "this is server" > index.nginx-debian.h	ntml				

Steps		
1	Launch EC2 Instace	
2	Take acces of EC2 Instace	Go to RDP Client
		Download Remote Desktop file
		Get password
3	after access go to server manager and install	go to add roles and features and install web server IIS
4	go to C drive	1. initpub
		2. wwwroot
		3. Create HTML File
5	check with public IP	

		S3 Lifecycle		
1	Go to s3 bucket			
2	Go Management			
3	Create lifecycle rule			
	Lifecycle rule name			
5	Lifecycle rule actions			
	Select option			
	Add Your Transitions			
	Create Rule			
_				
		VPC		
		VPC		
Step				
1	create VPC	Resources to create	USe VPC Only	
		Name	Name your Vpc	
		IPV4 CIDR	10.0.0.0/16	Request these values to Design Architect
		create VPC		
2	create IGW	Create Internet Gateway		
		Name Your IGW		
3	Attach IGW to VPC	Select IGW and Attach to VPC		
4	Create Subnet	Select VPC		
		Subnet Name	Public Subnet 1	
		Choose AZ		
		IPv4 subnet CIDR block	10.0.0.0/24	Request these values to Design Architec
		Do Same Process For Private Subn		request trices values to Boolgin asimos
		Do Jame 1 Tocess 1 of 1 Tivate Jubi		
-	Occasio Dente Table Bublic / Britanta	Name Varia Davida Tabla		
5	Create Route Table Public / Private	Name Your Route Table Select VPC		
		Do Same Process For Private Route To	able Also	
6	Subnet Association	Select Subnet and Associate with Route Table		
7	Routes	Select Subnet and edit route	Add routre 0.0.0.0/0 and select IGW	
8	Create Nat Gateway	Choose Public Subnet		
		Connect With Private Route table		
		ELB		
Practical Steps				
create security group (You can upon the control of the contro	use existing security group also)			
2.Launch 2 Ec2 instace. Add shell:				
Z.Laurich Z Loz instace. Add shell				
	yum inetall httpd -v			
	yum install httpd -y			
	service httpd start			
	chkconfig httpd on			
	cd /var/www/html			
	echo "This is server-2" > index.html			
Create Target Group	choose target type- instace			
	name> fill as per your requrements			
	Next			
	choose your instances			
	create target group			
	register targets			
	included as pending			
	register pending targets			
4. Create Load Balancer	name load Balancer			
	choose internet facing / Internet (choose a	s per your requirement)		
	select vpc/AZ			
	Select Target group			
	create load balancer			
5 Check	check with DNS			
	SHOOK WILL DING			