24th-2021.

1. Instance upgrade: means incres the instance configuration.

Os upgrade:linux,windows etc…

Software upgrade: java 1.8 to change 11 etc.

Server upgrade: web server incres version

Db upgrade: change the db version

1. Collection of ip address is called we call it as ip pool.
2. Snapshot: backup of the volume : point in time back up of the volume

Interview question:

1. What is diff between volume and snaposhot

Volume: 1) volume is a attached to the ec2-instance.

2) volume is specific to the az.

3) it is not possible to copy volume one availability zone to another availability zone and one region to another region.

Snapshot:1) snapshot is a not possible to attached to ec2-instance.

2) snapshot is specific to region

3) it is possible to copy snapshot one region to antoer region.

5) why we can take back-up of data(volume): that is need if data corructedpted data is gone

But I want data we can backup we can restore back.

6) snapshot is backup of volume(storgae) .volume is correctuped but I want data but data backup is snapshot but snapshot not possible to attach ec2.

How I can get my data backup from snapshot.

From snapshot I can create volume that volume attached to volume.

7) based of snapshot we create any number of volums.

8) my instance1 in mubai region instace having----volum1 but I dont want to maintane my server in mubai region I want chane location.

Instance menas---volume.

Instance-----volume----take a snapshot ------snapshot send to another loc-------from snapshot take a volume------that volume attached to that loc instance.

9) root device(root volume) means: root device(root drive ) containes os configuration files is available . When root device is correctuped machine is gone. All are additional devices like d,e drives.

10) multiple volumes we can attached to the ec2-instance

Root device /dev/xvda---in xvda having os configuration

Ebs /dev/xvdb

Your attaching 3 volumes server knows which root volume and additional voliumes.

And we can take back-up we need to understand which volume backup you want.

11) booting: loading of os is called booting .from root device.when ever we can start server it will loading the os fro root device ans it will start.

12) interview question:

What is diff between ami and snapshot and volume.

Ami: ami is bootable snapshot I am using a ami I will install os. And I launch instance

Snapshot: just backup of volume but we cannot install os. And using of snap we can not launch

Volume: storage .

13) requirement:I am working for hsbc client hsbc sid I want 50 ubuntu servers all machines want

Java

Awscli

Securitysoftwares

!) base image(ubuntu)--🡪we can launch instance-🡪login-🡪install java,aws cli,securitysoftwares

From that above instance we can create ami that ami called custom ami from that custom ami we can launch 49 servers that all 49 servers having ubuntu os,java,aws cli,security softwares

Custome ami having os+java,aws cli,securitysoftware.

That custom ami belongs to my account only .

14) what is ami :it is also snapshot(back up) of root device.

15) application : means customer intracts to you using of application

16) high availability/disaster recovery/foult tolerance.

Application wants to ha/dr/ft

We can not achive high avalbitiyy because of 4 things

Application --🡪 in server----

1. Server failure
2. Location failure
3. High load
4. Software failre(website failura)

We can not achive high availability because of above 4 things

How to avoid 4 things in aws .

Aws providing 2 servicess.

1. Elb: distributed the load to servers elb knows only load distubuting.

Baside 2 servers elb distubuted 2 servers only elb beside 1 server elb distubuted 1 server only elb knows only distubuting load bedside servers.

1. Autoscalling: work is recuting and termination servers only .

Based on load ag is luanching more server automatically and termination servers automatically.

Ag knows only launching and termination of servers.ag does not concemtra on load distubuting.

Ag is by default features :1) replace server if server faild 2) re-balancing activity means not balanced it launch on more server.

I am using in my application ag.

Ag is easily identified failure server and launch new instance.

Aws suggest don’t keep your servers is in one az1 distubete multiple az s

Because of az is may failure

Server in one availability zone that az is faild ag is launch servers in another az

1. Server failure and location failure ag will handle.
2. Haigh load

How to handle high load 2 options there

1. Increase server configuration
2. Increase servers

Answer:2

Because

If We can choose 1

2 probles 1) any time don’t over load 2) server may faild

17) saclling :scalling or two types

means increasing and decrising

Scale-in-----------🡪scale-down(- operation)

Scale-out---------🡪scale-up (+ operation)

Both we can call scalling activity.

18) interviww question:

What is mean by horizontal scalling and vertical saclling

Horizontal scalling: incressing or decressing no .of instances it call hs

Vertical scalling:increasing or decrsing capacity of our machine

increasing or decresing the server configuration is call vs

ag supports horizontal scalling.

Pod------hps---horizonatal pod scalling

Vertical pod scalling : incress 2 gb to 4 gb pod

Interview questions: diff hpa vs vps.

18) keywords

Snapshot

Custom ami

Base ami

Volume

Elb

Ag

Sg—ib,ob

Scalling

Scle-in sale-down

Scale-out scale-up

Root volume : loading the os

Booting

Highavalability/dr/ft

Server failr

Location failure(az failure)

Hl

Software failre

Because of 4 things we can not achive high avalility

Aws intraduce elb and ag is for to achive high availability

19) what is diff between arg vs env:

Both are using variable creation only

Arg: in dockerfile we gave using of arg instruction using for specify the variable it is available during image building.

Env: using of env instruction specify the varable it will availbe during docke image creation also after running the docker container.

19) what is devops: devops is implementing of idea

Devops is technology not a programing lang not a db not a server

Devops is simple idea

How your application will be live

Process of application till live:

Development envinomrnt

Testing env: in testing stage multiple testing will be their like integration testing,functionality testing

Business testing like multiple level of testing will be there

SAT:SYSTEM ACEEPTENCE TESTING: MEANS THAT APPLICATION RUNS IN THAT SERVER OR NOT

UAT: USER ACCETENCE TESTING: FUNCTINALITY TESTING OF THAT APP

Live env

MY APPLICATION WANT S TO GOTO PRODUCTION HOW MANY LEVELS ARE HEPANING

DEV,TEST,SAT,UAT,LEVEL3 TETING AFTER APPROVAL THEN APP GOES TO LIVE

IN DEVELOPMENT ALSO SOME INFRASTRUCTURE IS THERE

1. DEVELOPMENT SERVER
2. DEVLOPMENT NETWORK
3. DEVLOPEMENT STORAGE

IN TESTING ENVRONMENT

TETING1 ENV

TEST 2 ENV

TEST ENV3

LIVE ENV IS THERE

=-------------------------------------------------------------------------------------------------

20) Dev env

DELEOPER DEVELOPMENT THE APPLICATION IN THIR DESKTOP OR LAPTOP

DEVELOPERS AFTER DEVELOPMENT DEVELOPERS RUN SOME TEST CASES

Once development activity done developer put code into repository (SCM)REPOSITORY CONTAINES SOURCE COD

SCM SOFTWARES (GIT/SVN/GITLAB/PVC)

ONCE DEVLOPER PUT IN VERSION CONTROAL TOOL THEY SEND A E-MAIL MY DEVLOPMENT ACTIVITY IS DONE SO IT IS READY FOR TESTING

DEVLPERS SAID MY CODE IS DONE AS PER BUSINESS DEVLOPMENT MY CODE IS AVALIBLE IN SCM SO IT IS READY FOR TESTING THEY SEND E-MAIL TO BUILD AND RELEASE TEAM

BUILD AND RELEASE TEAM IS THERE LIKE A DEV AND TEST TEAM

BUILD AND RELEASE TEAM WORK IS THEY TAKEN CODE FROM SCM THEIR COMPILE IT FOR CHECKING SYNTAX ERRORS

THEY COMPILE THE CODE IT IS ALL IS GOOD THEN GENERATE A ARTIFOCTORY(EXECUTABLE FILE)

ARTIFOCTRY MEANS NO SYNTAX ERROR THAT CODE EXCUTE SUCESSFULLY

THEY COMPILE AND GENERATE A ARTIFOCTRY IS CALLED BUILD & RELESE PROCESS

IN PROCESS BUILD & RELESE PROCESS ANY ERROR COME THAT TEAM SEND A MAIL TO DEVLOPERS IN THAT CODE SYNTAX ERRORS CAME PLZ CHECK IT

THEN DEVLOPERS CHECK THE CODE AND FIX IT THEN SEND TO SCM

BUILD AND RELESE TEAM TAKE CODE FROM SCM BUILD THAT CODE AND CREATE A ARTIFACORY

THAT ARTIFACTORY KEPT IN TESTING ENV.

THEN BUILD & RELESE TEAM SEND A E-MAIL TO TESTING TEAM I COPY THAT ARTIFACTORY IN TETING SERVERS DO TESTING

THEN TESTERS DO TESING IN TESTING ENVRONMENT DURING TESTING POSIBLE TO COME BUGS IF BUGS CAME TESTING TEAM SEND A E-MAIL TO DEVLOPERS PATICURE CODE GIVE BUG PLZ FIX IT.

THEN DEV TEAM FIX IT AND KEPT IN SCM SEND A E-MAIL TO B & R TEAM THEN B& R AGAIN COPOLE AND GENERATE ARTIFACTORY THEN KEPT TESTING SERVERS AND SEND A E-MAIL DO TESTING.

THEN TESTER DO TEASTING PROPERLY NO BUGS CAME THEN TEST TEAM SAID THIS CODE IS PERFECT AS EXCEPTED

BUT BUSINESS TEAM WANT ONE OR TWO MORE LEVELS OF TESTING.

THIS PROCESS WILL DO TILL APPLICATION IN LIVE .

IN REAL-TIME 30 TO 40 APPLICATION WILL BE THERE

IS EVERY APPLICATION WANTS THESE PROCESS HERE HUGE MAN POWER REQUIRED MANUAL THINGS ARE REQUIRED FOR BUILD AND RELESE PROCESS .

THAT BUILD AND RELESE PROCESS WE CAN AUTOMATED USING OF DEVOPS TOOL JENKINS.

THIS PROCESS IS CALLED CICD

DEVLOPER PUT A CODE IN SCM JENKINS AUTOMATICALLY TAKE THAT CODE BUILD THAT CODE AND GENERATE A ARTIFACTORY AND DEPLOY INTO TESTER SERVERS AND SEND A NOTIFICATION.

NO NEED A MAN POWER AND MANUAL STEPS.ONLY JENKINS DONE AUTOMATICALLY BUILD AND RELESE PROCESS(CICD).

MANUAL WORK IS AUTOMATED USING OF JENKINS/TEAMCUITY

FROM DEVLOP ENV TO TILL PRODUCTION APPLICATION PROCESS IS AUTOMATED USING OF JENKINS.

21) I HAVE 30 SERVERS I WANT TO UPDATE THAT 30 SERVERS SECURITY PATCH SECYRITY PATCH EXIPRE SO I WANT TO UPDATE SECURITY PATCH

WHO IS DOING ACTIVITY OPERATION PEOPLE OR SERVER ADMIN SERVER MANAGEMENT.

SERVER ADMIN WANTS TO LOGIN ALL MACHINE UPDATE SECURITY PATCH UPDATE SECURITY PATCH WANTS 15 MIN FOR EACH MACHINE.

AND

I WANT INSTALL THAT SERVER JAVA APPLICATION ,PHYTON SOFWARE

I WANT TO ALL SERVERS BACKUP .

EACH AND EVRY MACHINE I WANT TO DO MANUALLY HUGE MAN POWER IS REQUIRED

MULTIPLE SERVERS REPETED ACTIVITY I CAN DO IT PARRELLY USING OF ANSIBLE.

ANSIBLE/PUPPET/CHECF:THESE ALL TOOL IS DO CONFIGURATION MANAGEMENT :MEANS

SERVER MAINTAINCE ACTIVITY ,MANUAL ACTIVITY

IN AWS SERVRICE IS THERE FOR CONFIGURATION MANAGEMNT

1. INSTALIZATION
2. COPY FILES
3. DELETING FILES
4. STOPING SERVICESS
5. LUANCHING MACHINES

THESE THING WE CAN AUTOMATED USING DEVOPS TOOLS USING ANSIBLE

DEPLOYMENT : MEANS COPYING A APLLICATION INTO LIVE TESTING SERVERS AND PRODUCTION SERVERS.

22) FACEBOOK MAINTAINE 100 OF SERVERS ONE NEW FEAUTER CAME THAT FUTURE DONE DEV AND TESTING I WANT TO COPY TO PROD SERVERS BUT WITHOUT DOWNTIME I WANT IT

CUSTOMERS WANT TO ACESS MY APP BUT NEW FEAUTE ALSO AVAILABLE WITHOUT DOWNTIME HOW

THERE IS SOME DEPLOYMENT STRAGIES,ROLLING UPDATES,KENARY UPDATES ,BLUEGREEN DEPLOYMENT WE ARE USING SOME TECHNIQUE WE CAN DO AUTOMATION ZERO DOWTIME

SOME OF THE TRAFFIC GOES INTO SOME OLD APPLICATION SOME OF THE TRAFIC GOES INTO NEW APPLICATION. FOR TRASITION PERIOD IT WILL TAKE 15 TO 20 MIN OF TIME.

10 SERVERS ARE THERE THAT 10 SERVERS MAINTAIN FACEBOOK APP

NEW FEAUTER CAME 5 SERVERS DOWN AND 5 SERVERS UP DOWN SERVERS I DEPLOY NEW FEATURE OF CODE THEN COMPLTED ITHAT 5 SERVERS UP THEN NEXT 5 SERVERS DOWN AND DEPLOY THAT NEW CODE INTO 5 SERVERS AUTOMATICALLY COMPLTED SERVERS UP

WITHOUT DOWTIME USERS ACESS OLD APP AND NEW APPLICTION FEATURE.

MICRO-SERVIRCESS OR MICRO MANAGEMENT

INSTEAD OF MICRO MANAGEMENT I USE MICROSERVICESS

IN SIDE FLIPKAT HAVING SERVICESS

1. CUSTOMER REGI
2. AUTICATION
3. SALES: LESS LOAD ON 98
4. PAYMENT
5. INVENTORY
6. REPORTING
7. SHIPPING

I WANT TO DEVLOPE A CODE INTO SINGLE CODE I WANT DEPLOY THAT CODE INTO ONE SERVER

I WANT TO UPFDATE FUNCTIONALITY OF SALES THAT IS NOT EASY SO I WANT TO DEVLOPE EVERY SERVICESS CODE INTO INDEPENDENT

AND I WANT SALES FUNCTONALITY UPDATE

AND THER IS HIGH LOAD ON SALES NOT HIGH LOAD ON AUTHICATION THEN I TAKEN SALES PURPOSE 3 REPICAS AND AUTHICATION PURPOSE I TAKEN 1 REPICAS

THAT TECHNOLOGY COMES IN DEVOIPS

DOCKER TO IMPLEMENT MICRO-SERVICE ARCTITURE SETUP.

ARCHSTAION MEANS : MANAGEMENT I WANT TO INCRESS SERVICESS DECRESS SERVICESS USING OF K8S

MICROSERVICESS ARCHITURE IS CREATED USING DOCKER BUT MAINTAING IS K8S

DOCKER SWARM/K8S IS BOTH SAME ALL ARE K8S ARE USING

DEVOPS IS IDEA TO AUTOMATION IS ALL THOSE THINGS THAT IDEA WE CAN CONVERTING BY USING SOME SOFTWARES

FROM DEV TO LIVE AUTOMATED USING OF SOFTWARE THAT SOFTWRE IS A DEVOPS TOOL

INFRASTRUCTURE MANAGEMEMT: MEANS

1. LUANCH SERVERS
2. CREATEING N/W
3. ATTACHING HARDDISK
4. TAKING BACKUP
5. DOING LOADBALANCING

TO REQUIRED TERRAFORM /CLOUD FORMATION IS DOING SERVER/STORAGE/NETWORK

THESE ALL THING I IMPLEMENT ON CLOUD MAINLY.

HI,

I JOINED THE CALL

BESTREGARDS

SUMANTH.