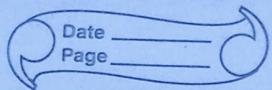


Assignment - Q.



write down the steps for the following.

1) Create EC2 Instance.

steps.

- 2) sign into the AWS management console and EC2 console.
- 3) choose EC2 dashboard then choose launch instance
- 4) choose the Amazon Linux 2 AMI
- 4) choose the t2 micro instances type and then choose next - configure instance detail.
- 5) choose next - add storage
- 6) choose next - add tags
- 7) choose add tag, enter key name & value and choose next - configure security group
- 8) choose "select an existing security group" then choose any security group then choose Review of & Launch
- 9) In this page, verify your setting & then choose Launch & in this page, choose create a new key value pair and set key - pair name to tutorial key-pair.

- 11) choose download key pair & save the key pair file to your local machine. you will use this file to connect to your ec2 instance.
 - 12) to launch ec2 instance, choose launch instances.
 - 13) choose view instance to find your instance.
2. Connect to window Instance.
- Steps
2. select instances, select your instances and then choose connect.
 3. open the amazon ec2 console.
 3. in the connect to instance page, choose RDP client and then choose get password.
 4. choose browser and navigate to the private key file you created when you launched the instance. select the file and choose open to copy the entire contents of file to this page.
 5. choose Decrypt Password, this console displays the default administrator password for the instance password, replacing the get password link shown previously. save the password in a safe place you need this password to connect to the instance.

- 6) choose download remote desktop file your browser prompt you to either open or save the RDP shortcut file. select the option to save the file. why you have finished downloading the file. choose cancel to return to instance page.
- 7) navigate to your downloads directory and open RDP shortcut file.
- 8) you might get a warning that the publisher of the remote connection is unknown choose & connect to continue to connect your instance.
9. the administrator account is chosen by default. copy and paste the password that you saved previously.
10. Due to the nature of self-signed certificates you might get a warning that the security certificate could not be authenticated. use the following step to verify the identify of your remote computer. or simply choose yes (window) or continue (macos)
- 11). in the amazon ec2 console, select the instance choose instance monitor & troubleshoot get system log.

3. Compact the limuse instance.

i. in a terminal window, use ssh command to connect the instance you specify the path and file name of the private key, the username for your instance and public DNS name or IPV6 address for your instance

for more information about how to find the private key, the username for your instance and the DNS name or IPV6 address for your instance, to connect to your instance use one of the following commands.

ssh -i /Path/mykey-pair.pem my-instance-username
my-instance-public-dns-name.

d. verify that fingerprint in the security alert matches the fingerprint that you previously obtained in get the instance fingerprint. if these fingerprints don't match someone might be attempting a man-in-the-middle attack. if they match continue to the next step.

3. enter yes.

4. Create S3 bucket.
 1. Sign into Amazon AWS.
 2. Under Storage of Content Delivery choose S3 to open the Amazon S3 console.
 3. From the Amazon S3 console dashboard choose Create Bucket.
 4. In Create Bucket type the bucket name the bucket name you choose must be globally unique across all existing bucket name in Amazon S3.
 5. In Region choose your region.
 6. Choose Create.
5. Send an email using SES steps.
 1. Sign into the AWS management console and open the Amazon SES console.
 2. In the navigate pane of the Amazon SES console under Identity Management choose Email Address.
 3. In the list of identities select the checkbox of an email address that you have successfully verified with Amazon SES.

4. choose send u test mail.

Assignment - 3

- give the detailed discussion for the following.

1. open source lucis software.

(Any one slw with architecture).

Infrastructure as a service is a service model where an organization outsource the equipment used to support storage, hardware, servers and networking component.

- openstack is an open source cloud computing project to provide an infrastructure as a provider an Infrastructure as a service. This interaction is obtained through public API's that each service offers.

- openstack controls large pool of compute, storage and networking resources through a data center all managed through a web interface it delivers a massively scalable cloud operating system.

- the technology consists of a series of connected projects that controls pool of processing, storage and networking resources throughout a data center all managed through a dashboard.

that gives admin control while powering its users to provision resources through a web interface.

Q. Open Source PaaS Software.

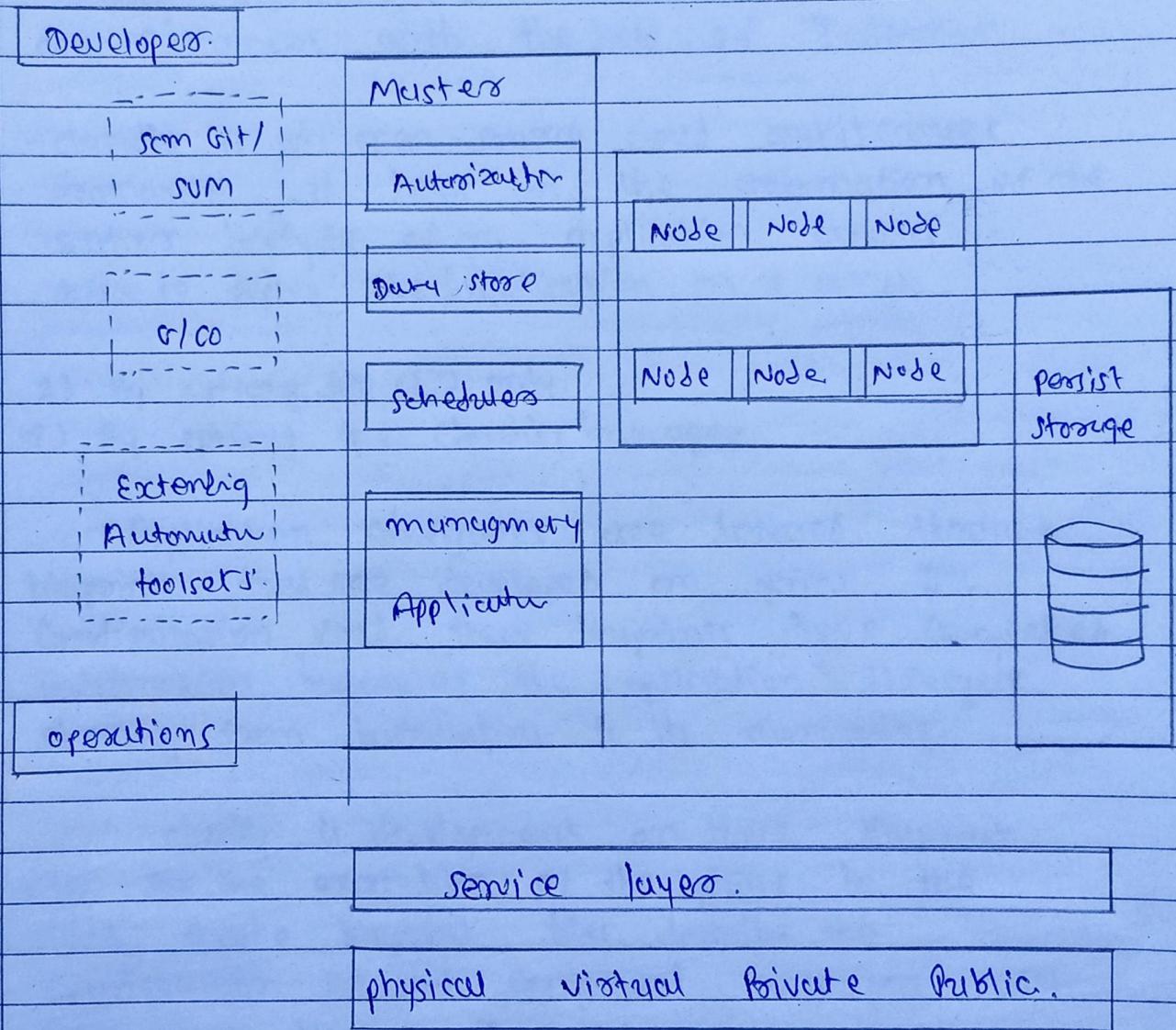
platform as a service is a category of cloud computing services which offer a way to support the complete lifecycle of delivery web applications & service via the cloud.

- OKD (formerly known as openshift origin), is a paas computing platform as a service product from Red Hat. it is an application platform where application developers and team can build, deploy and run their application. OKD takes care of infrastructure middle ware of management so that developer can focus on their app.
- OKD enables you to track, deploy and manage application within the cloud. it provides disk, space, CPU resources, memory, network connectivity and on Apache or JBoss servers.

Depending on the type of application being developed, a template file system

- It provides support for wide variety of language runtime and data layer includes Java, ECG.

Rating layers



CKD Architecture.

3. open source SaaS Software.

SaaS is a cloud model where in the third party is trusted with the responsibility of hosting application and make them available for customers with the help of Internet.

- Cloudify is an open source cloud architecture framework. It helps in the automation of the entire lifecycle of an application enabling users to deploy the application in 2 ways

- 1) By option of CI only.
- 2) By option of the Cloudify manager.

Application Configurations are defined through blueprints that are developed in yaml DSL configuration files. These blueprints have completed information regarding the application lifecycle starting from installation to its monitoring.

Cloudify is development on these blueprint files for the execution of the plans in the cloud. These blueprint files describe the configuration of each component allowing with their binary location Installation.

- features

- local Blueprint
- it governance & security
- Blueprint modeling
- Docker orchestration
- Built-in node types.

4. open source cloud simulation software.

Cloudsim is a new highly generalization and extensible Java based simulation toolkit and is actually regarded as software framework. It supports several core functionality like creating & processing of events, communication among concepts & the management of the simulation clock. Cloudsim has been developed by the cloud laboratory of the computer science & software engineering department of the university engineer of melbourne. This toolkit enables seamless modeling.

Cloudsim Architecture.

USER CODE

Simulation specification	Cloud scenario	User requirements	Application Configuration

Schedule Policy	User or data Center browser

CLOUDISM

User
Interface.
structure.

Cloudiest

Virtual machine /

VM
services.

Cloudiest Execution

VM management /

Cloud
services

VM

providing

CPU

Allocates

memory

Allocates

storage

Allocates

Bundling

Allocates

Cloud
Resources

event
handling

Sensor

Cloud
corridor
88

Data
centers

Network

Network topology

Msg Delay Controller

Cloud Simult simulation Engine

Cloud computing and application services
it can be treated as running a model of an
environment by fusing the hardware.

5 opensource distributed system software,

the apache Hadoop project developer open source software for reliable, Scalable, distributed Computing.

the apache Hadoop software library.

Hadoop Common : the common utilities that support the other hadoop modules.

Hadoop distributed file system : HDFS is a distributed file system that provides high throughput access a application data.

Hadoop yarn - a framework for job scheduling and cluster resources management

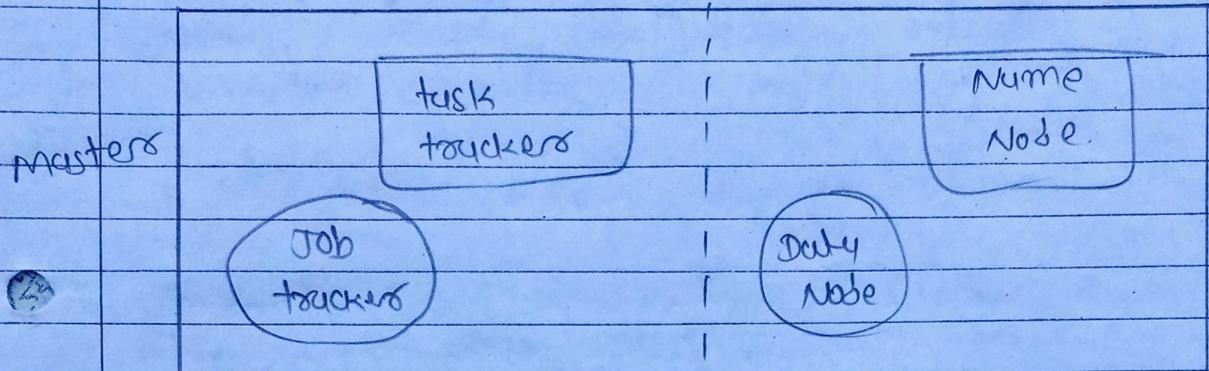
Hadoop mapreduce - a YARN based system for parallel processing of large data sets.

Hadoop - ozone - an object store for Hadoop.

the apache Hadoop software library is a framework that allows for distribution processing of larger data sets across clusters of computers, using single server to thresholds of machine each offering local computation & storage.

MapReduce layer

HDFS layer



slave

