

Q-1

Open Source IaaS Software

- Infrastructure as a service is service model where an organization out sources the resource used to support storage. Hardware, servers and networking components

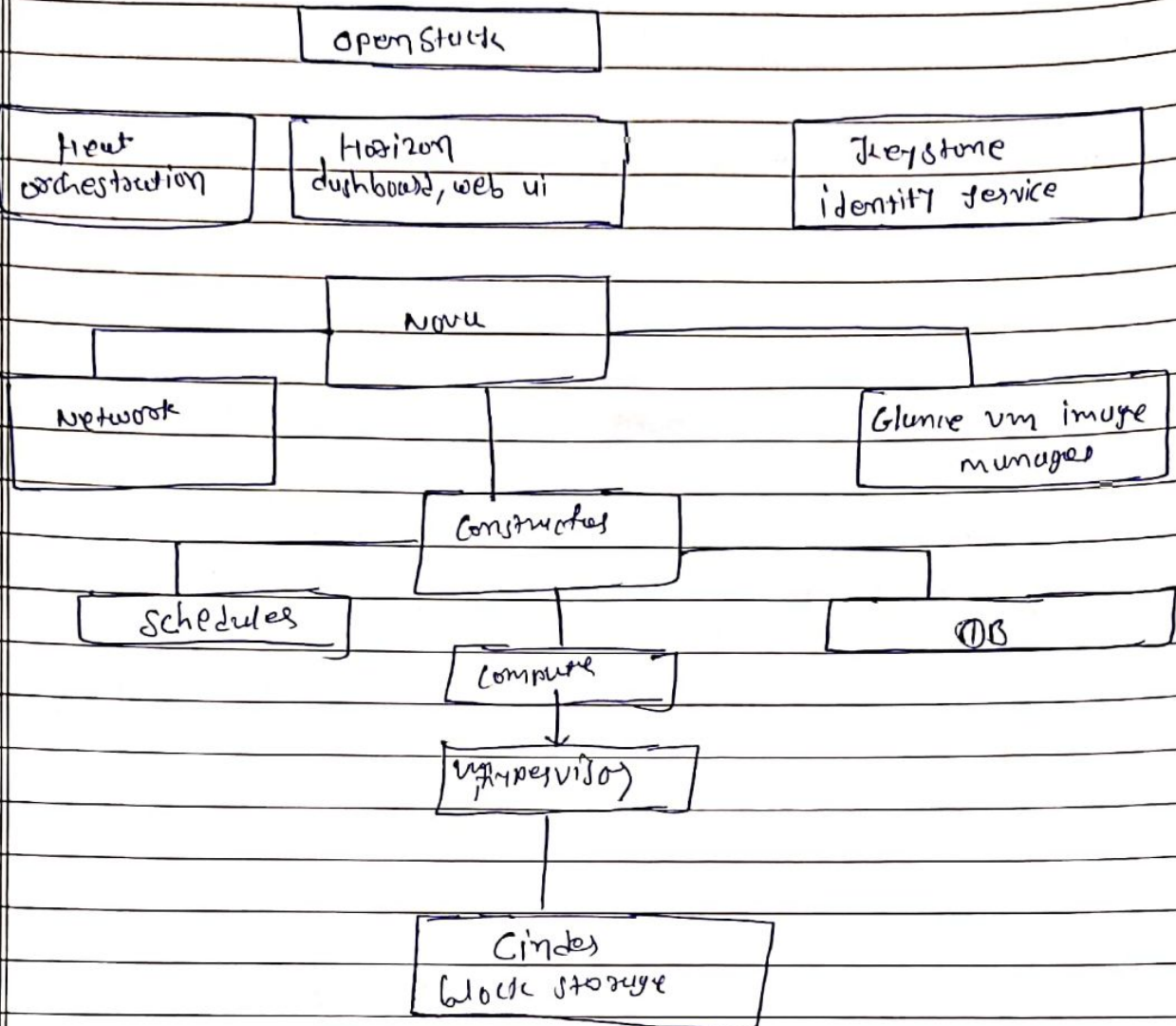
- Open stack is an open source cloud computing project to provide an infrastructure it as services. This integration is facilitated through public APIs that each source offers

- Open stack controls large pool of compute, storage and networking resource through a dashboard this gives administrators control while empowering their user to provision resource through a web interface it delivers a massively cloud operating system

The technology consists of a services of compute project that controls pool of processing storage and networking resource through a data center all managed through a dashboard layer gives admins control while common it's used to provision resource through web interface

Nova (Compute)

Nova is a project of open stack that facilitates a way for provisioning compute instances. Nova support building bare-metal, virtual machine. It has narrow support for various system containers.



Q.2 Open source PaaS software.

Ans. Platform as a service is a category of cloud computing services which offers a way to support life cycle of delivery web application & services via the cloud.

or (Previously known as PaaS) is a part of computing platform of services on the cloud.

It is an application platform whose application developers and others can build, deploy and run their applications & management so that developers can focus on their app.

AZK enables you to create, deploy and manage application within the cloud. It provides disk space and the it provide or faster Java.

It provides support for a wide variety of language and no vendor lock-in. Including Java, C++, Ruby, PHP, Python, Perl, MongoDB, MySQL & PostgreSQL.

OaaS Architecture

Routing Layer

Developer

SCM
GIT / Github

Modules

API / Action

Database

node

node

node

persistent
storage

CI/

CD

node

node

node

schedule

existing

Automation

Jenkins
Routine App

Tool / sets

Red Hat
Enterprise
Linux

Operation

Source Layer

physical virtual private public

Q3 open source SaaS software

⇒

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

- clouding is an open source cloud cookery alloy framework. it helps in the customer of entire lifecycle of an application clouding enables user to deploy the Application in two ways

1) BY optimize for cost only

2) BY optimizing for the clouding sumble

Application configure use defined through blue points that are developing on jacc DSL configuration like, these blue point application life cycle

- features

- local Blue points
- it governance & security
- Blue printing modeling
- reset & orchestration
- Built mode types

Q-5 open source cloud Computing simulator software.

- cloudsim -> cloudsim is a new, highly generalized and extensible Java based simulation Toolkit and it actually provides as software framework

if supports servers are functionalities like clustering & processing of communication of cloud entities communication amongst components and the management of the simulation dash.

This toolkit enables seamless modeling simulation and environment in cloud Computing use application.

This toolkit enables seamless modeling simulation of Computers.

Feature:

- supports clouding simulation of large scale cloud Computing data center.
- support modeling and simulation of virtualized server host, along with customisable virtual machines
- supports the creation of various duty cycles network to policying resource possible application.

Q-6

open source Distributed system software

The Apache software project develop open source software for reliable scalable distributed computing.

- The Apache software library is a framework that allows for distributed processing of large data sets across clusters of computers using simple programming model.

it is designed to scale from single service thousand of machine offering load balancing & storage rather than rely on hardware to deal with activities the library itself is designed to detect and handle failure at the application layer so delivering high available services on the top of a class net of computers each of which may be prone to failure.

- Hadoop map reduce a framework based on parallel processing of large data set.

- Hadoop : An object store for Hadoop

Assignment #4

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define

① compute engine

secure and customizable compute service that lets you control and runtime and monitor on google's infra structure

② App engine

Build highly scalable Application on a fully managed serverless platform

③ cloud function

scalable pay as you go function as a service to run your code with zero server management

④ Google's Kubernetes engine


- A simple way to automatically deploy, scale and manage Kubernetes

⑤ cloud run

- Develop and deploy highly scalable containerized application on a fully managed service platform

⑥ container register.

- store manage and secure your docker container image.

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3) virtual private cloud

- Global virtual network that spans all regions single VPC for an entire orgnize isolated within, protect IP space with in domain.

4) cloud load balancing

- With performance capable load balancing on google clouding platform

5) cloud hybrid computing

- connect your infrastructure to google cloud on your term for ~~connect~~ anymore

6) google cloud domain cloud DNS

- Reliable resision - loading, DNS, services from google worldwide network with everything you need to register

7) cloud CDN

- fast reliable web and video content delivery with global scale and reach

12) google cloud ml

- it help protects your application and website & assesses details of abuse and web attacks.

(13) Google storage.

- object storage for companies of all sizes & any amount of data.

14) persistent disk

- object storage for companies of all size store any amount of data restore it was often at good price.

15) cloud storage and data archiving

- Highly available affordable solution for backup archival and recovery

16) file storage.

- High performance fully managed file storage

17) memory store

- reduce latency with reliable secure and highly available in memory service for read and manage

18) cloud sql

- fully managed relational database service for mysql, postgres and sql server.

19) cloud file storage

- fully managed solution - database with uniform access storage consisting and up to 99.99% available

20) cloud big table

- A fully managed scalable NoSQL database service for large Analytics and operations work loads upto 99.99% availability

21) big query

- serverless widely scalable and cost efficient multi cloud data warehouse designed business quality

22) Data proc

- Data proc is fully managed and highly scalable service for running Apache, spark, Tez, etc and both open source tools framework.

23) Dataflow

- unified stream and data processing that's services fast and cost-effective.

24) cloud trace

- find performance & status in production

25) secret manager

- store API key password configs and other sensitive data.

26) data cat

- manage catalog key on google cloud

eg) event threat detection

- security and risk management platform for
google cloud

so) video AI

enable performance context ^{edge} - connect and
enable video experience