

Assignment-3

Page No. : 12

Date :

Q-1 Open source JAAS software.

→ Infrastructure as a service is a service model where an organization out sources the component used to support storage, hardware, servers and networking components.

→ Open stack is an open source cloud computing project to provide an Infrastructure as services and networking components.

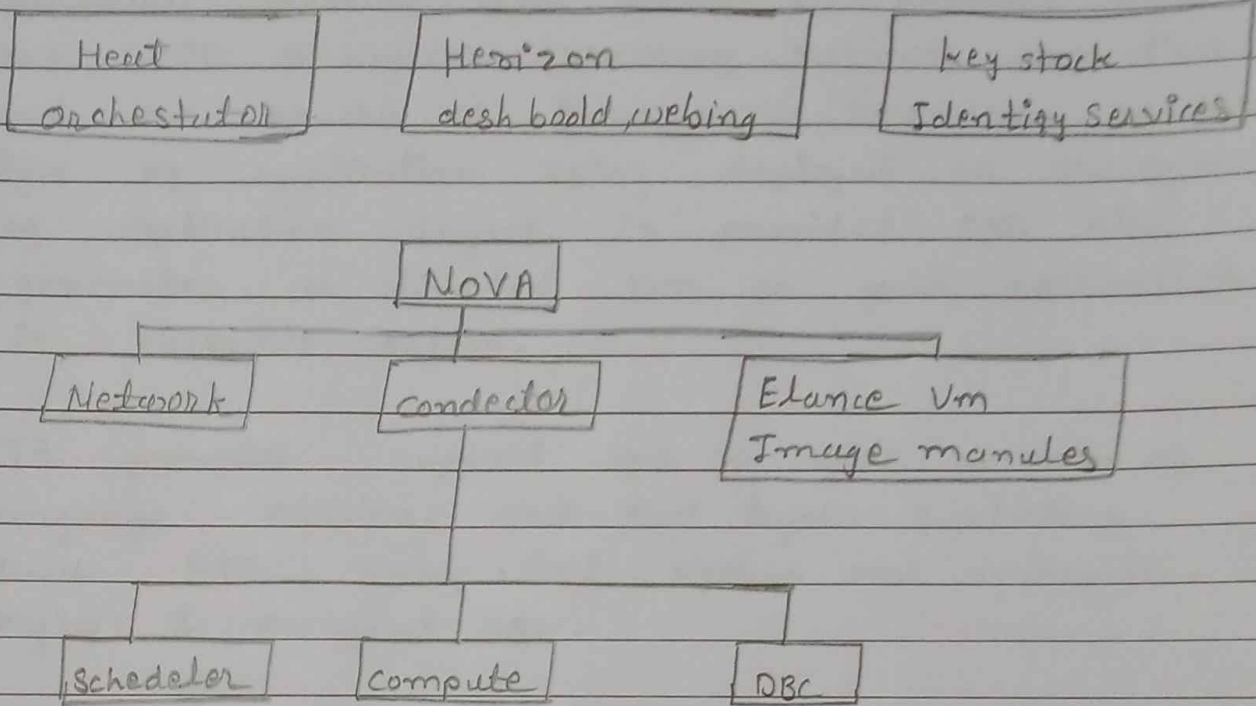
→ Open stack is an open source cloud computing project to provide an Infrastructure as

→ Open stack controls huge pool of compute, storage and networking resources throughout a data center, all managed through a dashboard this gives administrators control while empowering their user to provision resources through a web interface it delivers a massively cloud operating system.

→ The technology consists of a service of connects projects that controls pool of processing storage and networking resources throughout a data center. All managed through a dashboard that gives admin control while empowering its user to provision resource through a web interface.

Open stack

main service & components

Q-2 open source pass software.

→

platform as a service is a category of computing service which offers a way to supports the compute life cycle of delivery web applications & services via the cloud.

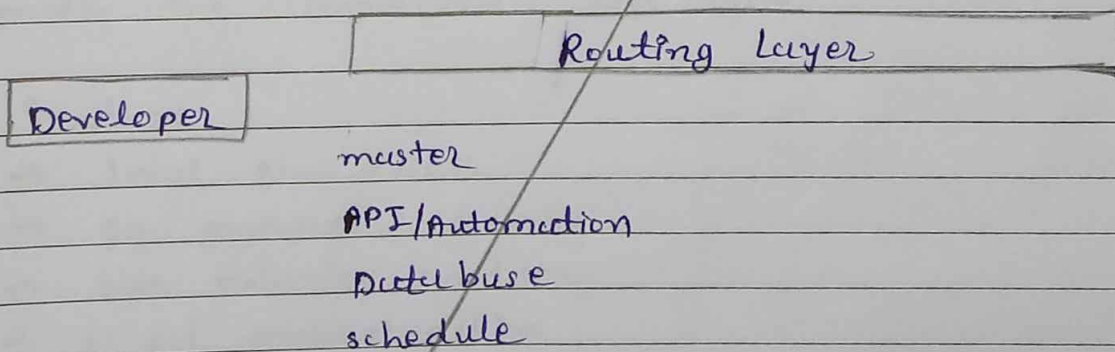
→

OPD (previously known as OpenShift origin) is a pass computing platform as service product from Red Hat. It is an application platform whose application developers and teams can build test, deploy and run their application OPD takes care of Infrastructure, indidcu & management so that.

developers can focus on their app.

- OKD enables you to create, deploy and manage application within the cloud. It provides disk space, CPU resources, memory, network connection and an Apache or Iboss server, dependency on the type of application being deployed on the type of application. Layout is provided. OKD also generates a limited DNS so your application is accessible online.
- It provides support for a wide variety of language runtime and storage engines including Java, ESE, Ruby, PHP, python, perl, mongoDB, MySQL & PostgreSQL.

OKD Architecture



Q-3 Open source SaaS software.

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

→ Cloudify is an open source cloud ecosystem alloy framework. It helps in the customization of the entire lifecycle of an application. Cloudify enables users to deploy the application in two ways.

① By opting for ETL only

② By opting for the Cloudify manager.

- Application configurations are designed through blueprints that are developed on YAML configuration like. These blueprints have complete information regarding the application lifecycle.

Features

- Local blueprints
- It governs & secures
- Blueprint modeling
- To set orchestration
- Built node types.

Q-4 open source cloud simulator software.

→ cloudsim ⇒ cloudsim is a new, highly generalized and extensible java based simulation toolkit and is actually regard as software framework.

It supports served core functionalities like queuing & processing of communication of cloudsim entities, communication among components and the management of the simulation clock.

This task kit enables seamless modeling simulation and distribution in cloud computing application.

This task kit enables seamless modeling to be used of computers.

* Features

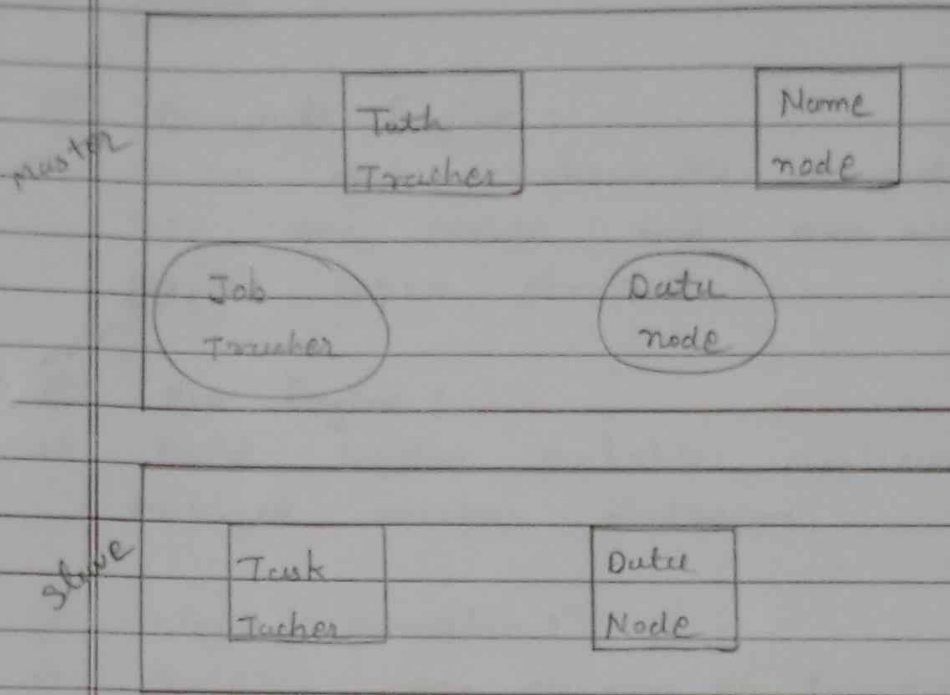
→ supports modeling simulation of large scale cloud computing data center.

→ support mapping and simulators of virtualized servers, hosts, along with customisable policy for provisioning test resource to virtual machines.

→ support the creation of various data center network to policy message passing application

Q-5 open source distributed system software.

- The Apache Hadoop project develop open source software for reliable, scalable distributed computing.
- The Apache Hadoop 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 up from simple service to thousand of machine offering local computing & storage rather than rely on hardware to deliver high availability, the library itself is designed to detect and handle failures at the application layer, so delivering highly available service on the top of a clusters of computers each of which may be prone to failure.

MapReduce Large

- Hadoop MapReduce : A YARN based for parallel processing of large data sets.
- Hadoop : An object store for hadoop

Assignment-5

Page No. : 19

Date :

* Define :

① Compute Engine :

→ Secure and customizable compute service that lets you create and run virtual machines on Google's infrastructure.

② App Engine :

→ Build highly scalable applications on a fully managed serverless platform.

③ cloud function :

→ Scalable pay as you go function as a service to run your code without server management.

④ Google Kubernetes Engine :

→ Simple way to automatically deploy, scale and manage Kubernetes.

⑤ cloud run

→ Develop, deploy, and run highly scalable containerized application on a fully managed service platform.

⑥ Container Registry

→ Store, manage and secure your Docker container images.

- ⑦ virtual private cloud :
→ global virtual network that spans all regions
single VPC for an entire orginize isolated
to within project IP space with no domains.
- ⑧ cloud load balancer
→ High performance scalable load balancer google
cloud platform.
- ⑨ cloud vpc connecting
→ connect your infrastructure to google cloud on your
term form anywhere.
- ⑩ Google cloud domains cloud DNS :
→ Reliable resilient low-latency DNS service from
google's worldwide network with everything you need
to register.
- ⑪ cloud CDN
→ fast reliable web and video content delivery
with global scale and reach.
- ⑫ google cloud Armor
→ Help protects your application and website
against threats of service and web attack.
- ⑬ Google storage
→ object storage for companies of all sizes store
any amount of data.

(14) Persistent Disk :

→ Object storage for companies of all size store any comment of data Retire it any other as good like.

(15) cloud storage and Data archiving.

→ Highly available aggedable solution for backup archivell and recover.

(16) file store

→ High performance fully imaged file storage.

(17) Memory store

→ Redule laterly with scalable secure and highly available in memory service for Redis and memcached.

(18) cloud sell

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

(19) cloud & pummer

→ fully manage relation database with unimta sake storage consistently and up to 99.99% available

(20) cloud big table

→ A fully manage sculeable, NoSQL database service for large analytis and operational work words with upto 99.99 available.

(21) Big Query :

→ Serverless, highly scalable and cost effective multicloud data warehouse designed business quality.

(23) Data Proc :

→ Data proc is fully managed and highly scalable service for running Apache, spark, Apache, flink presto and both open source tools framework.

(24) Dataflow :

→ Unified stream and batch data processing that's services fast and cost-effective.

(25) cloud track

→ find performance stallmark in production.

(26) secret manage

→ store API key password certificate and other sensitive data.

(28) cloud key

→ manage On crypton key on google cloud.

(29) Event thread Detackison.

→ Security and risks ~~man~~ management platform for google cloud.

(30) Video AI

→ Enable powerful content discovery and engage video experience.

* Define :

① Compute Engine :

→ Secure and customizable compute service that lets you create and run virtual machine on google's infra structure.

② App Engine

→ Build highly scalable applications 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 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 serverless platform.

⑥ Container Registry

→ Store, manage and secure your docker container image

- ⑦ virtual private cloud
→ global virtual network that spans all regions single VPC for an entire organization isolated within project in the IP space with no downtime?
- ⑧ cloud load balancing
→ High performance, scalable load balancing on Google cloud platform.
- ⑨ cloud Hybrid connectivity
→ connect your infrastructure to Google cloud on one your terms anywhere.
- ⑩ Google cloud domains cloud DNS
→ Reliable, resilient, low-latency DNS serving from Google's worldwide network with everything you need to register, manage and serve your domains.
- ⑪ cloud CDN :
→ Fast, reliable web and video content delivery with global scale and reach.
- ⑫ Google cloud Armor
→ Help protect your applications and website against denial of service and web attack.
- ⑬ cloud storage
→ object storage for companies of all sizes store any amount of data Retrieve it at least as often as you'd like.

(14) Persistent disk

→ Reliable, high performance block storage for virtual machine instances.

(15) cloud storage and data archiving

→ Highly available affordable solution for backup archival and disaster recovery.

(16) Filestore

→ High performance, fully managed file storage

(17) memory store

→ Reduce latency with scalable secure and highly available in-memory service for Redis and memcached.

(18) cloud SQL

→ Fully managed relational database service for MySQL, PostgreSQL and SQL server.

(19) cloud spanner

→ Fully managed relational database with unlimited scale, strong consistency and upto 99.99% availability

(20) cloud big table

→ A fully managed scalable NoSQL database service for large analytical and operational work loads with upto 99.99 availability.

- (21) Big query
→ Serverless highly scalable and cost effective multipurpose data warehouse designed business agility
- (22) Pub/sub
→ Ingest events for streaming into Bigquery data lakes or operational database.
- (23) Data Proc
→ Data proc is a fully managed and highly scalable service for running Apache, spark, Apache flink presto and both open source tools and frameworks.
- (24) Data Flow
→ Unified stream and batch data processing that's serverless fast, and cost effective.
- (25) cloud compose
→ A fully managed workflow orchestration service build on Apache Airflow.
- (26) cloud Deployment manager
→ google cloud Deployment manager is an infrastructure deployment service that automates the creation and management of google cloud resources.
- (27) cost management
→ Tools for monitoring, controlling and optimizing your costs.

(28) Cost monitoring

→ gain visibility into the performance, availability and health of your application and infrastructure.

(29) Cloud logging.

→ fully managed, real-time log management with storage, search, analysis and alerting at massive scale.

(30) Cloud Audit logs

→ gain visibility into who did what, which and where for all users on Google Cloud platform.

(31) Cloud Debugger

→ Inspecting your code's behavior in production

(32) Cloud Tracer

→ Find performance bottle neck in production

(33) Cloud Identity and Access management

→ Fine grained access control and visibility for securely managing cloud resources.

(34) Secret manager

→ Store API key, password, certificate and other sensitive data.

(35) Cloud Key

→ Manage encryption keys on Google Cloud.

(36) cloud Asset inventory

→ A metadata inventory service that allows you to view monitor and analyze at your use and A intous assets across projects and service.

(37) web service security

→ Security command center google cloud's centralized vulnerability and threat reporting service.

(38) Event threat Detection

→ Security and risk management platform for google cloud.

(39) manage service for microsoft Active Directory.

→ managed service for microsoft Directory of high availability hardened microsoft Active Directory Domains hosted by google cloud.

(40) speech to text.

→ Accurately convert speech into text using an API powered by google's AI technologies.

(41) cloud vision

→ Derive insight from your image in the the cloud or at the edge with Auto ML vision or use pretrain vision API model to detect emotional understand text and more.

(50) cloud vision

- derive insights from your image in the cloud or cut the edge with Auto ML vision or use pre-trained vision API models to detect emotional understand text and more.

(51) cloud Natural language AI

- Derive insights from unstructured text using google machine ~~learn~~ ^{learn}.

(52) cloud Translation

- make your content and apps multilingual with fast, dynamic machine translation.

(53) Dialogflow

- life like, conversational AI with state of the art virtual agents.

(54) video AI

- Enable powerful content discovery and engaging video experiences

(55) Auto ml

- train high quality custom machine learning model with minimum effort and machine learning expertise

(56) AI plc

⑤ AI platform

→ Build, deploy and scale ML models faster with pre-trained and custom tooling within a unified AI platform.

⑤ cloud IOT

→ Unlock insight from your global device fleet with an intelligent IOT platform whose scalable fully managed integration lets you connect, store and analyze data at the edge and in the cloud.