Continuous Assessment (1)

CAP 470 : Cloud computing

SECTION : D2112

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Set A

(1.) Mention platform which are used for large scale cloud computing?

Ans:- There is a vesiety of cloud computing platform offered by cloud services providers. Specific types of cloud computing platforms are designed to serve particular tasks. for example, some cloud computing platforms are designed offer free cloud storage. for this reason they are designed to be limited and less secure that paid private clouds.

Cloud computing is internet based computing that, on a demand basis, facilitates shared processing resources and data to computers and other devices. Indially small, with time and enhanced requirements, large-scale computing power was coorked upon. It is now used by big organisations worldwide. It came into existence in the 2000s. It aims to cut costs and allow users to benefit from the

merging newer technologies. The models currently in use for offering the solution are SaaS (Software as a service), PaaS (Platform as a service), and IaaS (Infrastructure as a service). Many leading organisations like Google, IBM, and some universities have embarked on large scale cloud computing research projects.

Companies like CLOUDOYE and ComputerHost facilitate large scale cloud computing hosting.

The platform for large-scale cloud computing are:- ① Apache Hadoop ② Map Reduce.

① Apache Hadoop :- It is an open source platform written in Java. It creates a pool of computer with each file system. Then data elements are clustered and similar hash algorithms are applied. The copies of the existing files are created.

② Map Reduce :- It is a software built by google in order to support distributed computing. It uses a large set of data and various cloud resources and then distributed the data to several other computers.

(2) Explain different models for deployment in cloud computing ?

Ans:→ The cloud deployment model identifies the specific type of cloud environment based on ownership, scale, and access, as well as the cloud's nature and purpose. The location of the servers you're utilizing and who controls them are defined by a ~~cloud~~ cloud deployment model. It specifies how your cloud infrastructure will look, what you can change, and whether you will be given services or will have to create everything yourself. Relation-ships between the infrastructure and yours are also defined by cloud deployment types.

Different types of cloud computing deployment models are :-

(i) public cloud
(ii) Private cloud
(iii) Hybrid cloud
(iv) Community Cloud

(i) <u>public cloud</u> :-
The public cloud makes it possible for anybody to access systems and services. The public cloud may be

less secure because it is open for everyone. The public cloud is one in which cloud infrastructure services are provided over the internet to the general people or major industry group. In this arrangement, storage backup and retrieval services are given for free, as a subscription, or on a per-use-basis. Example google App Engine etc.

Advantage of public cloud model

(a) Minimal Investment :- Because it is a ~~pay-use~~ pay-per-use ~~bat~~ service.

(b) No setup cost :- The entire infrastructu is fully subsidized by the cloud service provider.

(c) Infrastructure Management is not required.

(d) No maintenance :- it is done by service provider.

(e) Dynamic Scalability :- on-demand resource are accessible.

(ii) Private cloud :-

The private cloud deployment model is the exact opposite of the public cloud deployment model. It is a one-on-one enviroment for a single user. There is no need

to share your hardware with anyone else. The cloud platform is implemented in a cloud based secure environment that is protected by powerfull firewalls and under the supervision of an organisation's IT department.

Advantages of private cloud model:

(a) Better control :- your are sole owner of the property.
(b) Data security and privacy:- only authorized user have access.
(c) Support Legacy systems:- only work with legacy systems that are unable to access public cloud.
(d) Customization :-

(iii) Hybrid cloud :-

By joining the public and private cloud with a layer of proprietary software, hybrid cloud computing gives the best of both of clouds. With a hybrid solution, you may host the app in a safe environment while taking advantage of the public cloud's cost savings.

Advantage of hybrid cloud.

(a) Flexibility and control :- Business with more flexibility can design personalized solution that meet their particular needs.

(b) Cost :- only responsible for paying for the extra capacity.

(c) Security :- Because data is properly separated, the changes of data theft by attackers are considerably reduced.

(iv) Community cloud :-

It allows systems and services to be accessible by a group of organisations. It is a distributed system that is created by integrating the services of different clouds to address the specific needs of a community, industry, or business. The infrastructure of the community cloud be shared between the organisation which has shared concerns or tasks. It is generally managed by a third party or by the combination of one or more organization in the community.

Advantage of community cloud model

(a) Cost Effective : It is cost-effective because the cloud is shared by multiple organizations.

(b) Security :- community cloud provides better security.

(c) Shared resources :- It allows you to share resources, infrastructure etc. with multiple organisations.

(d) Collaboration and data sharing

(3.) What is the difference in cloud computing and computing for mobiles ?

Ans:- Cloud computing is the delivery of on-demand computing services over the internet on a pay-as-you-go basis. ~~Fo~~ In other words Cloud computing allows you to manage files and services over the internet with remote severs rather than a local server or personal computer. Modern businesses are continually moving more of their operations into the cloud to support a more scalable, cost-effective environment.

Like a filling cabinet with everything out of order, disorganized digital systems can be incredibly frustrating.

A cloud computing system keeps your system other organized and helps you effectively locate items. Moving to cloud computing might reduce the cost of managing and maintaining your IT systems. Instead of purchasing ~~exp~~ expensive systems and equipment for your business, you can reduce costs with the resources of a cloud computing service provider. With a cloud computing service, you only pay for what you ~~what~~ need. You can scale your storage up or down based on your needs. By taking advantage of a cloud service provider, you're saving space on your own server. Cloud service providers are typically more secure than a local server or your own personal computer. Therefore, cloud computing helps protect your company's sensitive data from being corrupted or lost.

While if you used your smartphone today, you relied on mobile computing. Mobile computing refers to different devices that allow

people to access data and information from any location. Mobile computing carries data, voice and video over a network through a mobile device. These devices rely on a core operating system which supports various software examples of mobile computing as: smartphones and cell phones, Laptop, tablets, Bluetooth devices, E-Book readers, Handheld game consoles, Cameras.

In our-faced digital world, mobile computing provides a lot of benefits. Mobile computing facilitates digital communication on the go. It connects people to needed information at all times, all over the globe. Just as with cloud computing, its important to keep your company mobile devices safe to ensure that the data shared and stored on them doesn't get lost or stolen. Information security services for your business mobile devices can protect your data from threat actors.