Cloud computing

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1) A cloud API means Application programming interface that facilitates development of services as well as applications for provisioning cloud platform, hardware, and software. It acts as a service gateway to enable indirect and direct cloud software and infrastructure to cloud users.

→ Weather data can be found in rich snippets on Google search, Apple's weather app, or even from your smart home device. Google isn't in the business of weather data, so they take this information from a third party. There are many weather API's that power this kind of functionality.

2) The main layers of cloud computing are:-

→ Infrastructure as a service (IAAS)
→ platform as a service (PAAS)
→ Software as a service (SAAS).

- Infrastructure as a service (IAAS):

IAAS providers give low-level abstractions of physical devices. Amazon web services (AWS) is an example of IAAS. AWS provides EC2 for computing, S3 buckets for storage etc. Mainly the resources in this layer are hardware like memory processor speed, network bandwidth etc.

- platform as a service (PAAS):-

The second layer of the cloud is the platform. The platform layer provides resources to actually build applications. In combination with IAAS, PAAS provides the ability to develop, test, run and host applications. The platform layer opens up for third parties to add their software to cloud service.

Ex:- ★ Microsoft Azure. Azure provides developers with swift access to a full development and deployment environment.

Software as a service:-

SAAS has been used for cloud selling, it is the layer in which the user consumes the offering from the service provider. The SAAS layer is web based and accessible from everywhere.

Ex:- CRM, HRM.

9) IAAS

PAAS

SAAS are the 3 commonly used cloud services.

→ IAAS is the delivery of computer infrastructure as a service.

applications:-

→ Rackspace

→ GoGrid

→ Symetria

→ PAAS model makes all of the facilities required to support the complete life cycle of building and delivering web applications and services available from the Internet

applications:-

→ Appscale

→ Engine yard.

→ Teemark

→ SaaS → is a software distribution model in which applications are hosted by a Vendor or service provider and made available to customers over the Internet

applications:-

→ Employee management system
→ municipal maintainance
→ service desk

→ False, It is economical, cloud services reduce significant costs associated with purchasing hardware resources, storage and maintainance of external data centres.

4) network and storage resources are consumed as resources when Iaas is selected.

5) The five characteristics of aws architecturral.

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-> Security:-

Security includes the ability to protect data, systems and assets to take advantage of cloud technologies to improve your security.

-> Reliability:-

The reliability encompasses the ability of a workload to perform its intended function correctly and consistently when its expected to.

-> Operational excellence:-

This includes the ability to support development and run workloads effectively, gain insight into their operation and improve supporting processes.

-> performance efficiency:-

The performance efficiency includes the ability to use computing resources efficiently to requirements of system and to maintain that efficiency as demand changes and technologies evolve.

-> Cost optimization:-

This includes the ability to run systems to deliver business value at the lowest price point.

6) cloud elasticity:-

cloud elasticity is the process by which a cloud provider will provision resources to an enterprise's processes based on the needs of that process. cloud provides have systems in place to automatically deliver or remove resources in order to provide just the right amount of assets for each project. for the.

cloud scalability:-

scalability is the idea of a system in which every application or piece of infrastruce can be expandid to handle increased load. for example, suppose your web application gets featured on a popular website like 'producthunt'. suddenly thousands of visitors are using your app - can your infrastruce handle the traffic. Having a scalable web application ensures that it can scale up to handle the load and not crash. systems have four areas where scalability apply (

→ Disk
→ Memory
→ Network
→ CPU