**DEVOPS IMPQ DAY-1**

**1. What is cloud?**

Cloud that can access servers over the internet including databases networking etc.

It will maintaining physical infrastructure like servers or data centers, users can rent computing resources from cloud providers.

Types of cloud service like

1. Iaas

2. Paas

3. Saas

4. Faas

**2. What is difference between public and private?**

**Public**: the cloud services offered by third-party providers through internet where resources are shared among multiple customers.

1. The Startups and businesses with limited budgets.
2. Applications are unpredictable workloads.
3. It are speed development, testing, and scaling.

**EX:** Amazon Web Services (AWS), Google Cloud Platform (GCP), Microsoft Azure.

**Private:** it will dedicate single organization either hosted by third party provider and it does not share the multiple organization and it will share only one organization.

1. It have high privacy required.
2. The organization need to high controlled.
3. It will prepredictable workloads.

**3.What are top 10 providers?**

1. Amazon Web Services (AWS).

It will uses of most of startups, and large-scale workloads.

Ex: it is largest provider globally offering like machine learning, Storage, database.

2. Microsoft Azure.

It will deep interact with Microsoft’s ecosystem.

Ex: Virtual machines, Azure kubernetes, Azure devops.

3.Google Cloud Platform.

Ex: Big Query, Kubernetes.

4.IBM Cloud.

5. Oracle Cloud.

6. Alibaba Cloud.

7. Salesforce (Heroku).

8. Tencent Cloud.

9. Digital Ocean.

10. VMware Cloud.

**5. What is difference between the cloud and server?**

**Server:**

A **server** is a physical or virtual machine that provides computing po wer, storage, and other resources to run applications or store data.

It will requires manual testing.

**Cloud:**

Cloud that can access servers over the internet including databases networking etc.

It will maintaining physical infrastructure like servers or data centers, users can rent computing resources from cloud providers

It has demand scalable.

**6. What is cloud computing?**

**Cloud computing:**

Cloud that can access servers over the internet including databases networking etc.

It will maintaining physical infrastructure like servers or data centers, users can rent computing resources from cloud provider.

Ex: Providers like AWS, Azure, or Google Cloud host data centers filled with physical servers.

**7.** **Types of cloud computing.**

**1. Iaas (Infrastructure as a Service):**

It provides Virtualized computing resources like servers, storage and networking.

It have Hosting websites, running applications, and storage solutions.

Ex: 1. Microsoft Azure Virtual Machines.

2. AWS.

**2. PaaS (Platform as a Service):**

A platform for developers to build, test, and deploy applications without managing infrastructure.

It is use Application development.

Ex: Google App, AWS.

**3.SaaS (Software as a Service)**

Fully functional software applications delivered over the internet.

Ex: Gmail,Sales.

**4.FaaS (Function as a Service)**

Allows you to execute code in response to events without managing servers.

Ex: AWS Lambda, Goog0le cloud function.

**8.Basic about development about SDLC?**

**Software development** is the process of designing, building, testing, and maintaining software applications.

**Types of software:**

1. **System Software**
2. **Utility Software**
3. **Application software**

**Software Development Process**

Software development typically follows a lifecycle known as the **Software Development Life Cycle (SDLC):**

**1.plainning**

Define the purpose and scope of the software.

Frist gather requiremnts from task.

**2.** **Analysis**:

Break down requirements and analyze feasibility.

**3.Design**:

Plan the architecture and design the user interface.

**4.** **Development**:

Write the code to create the application.

Use programming languages like Python, Java, JavaScript, or C++.

**5.** **Testing**:

Verify the code errors

**6. Deployment:**

Release the software to users.

May involve hosting on servers, app stores, or internal distribution.

**7.** **Maintenance**:

Fix bugs and update the software to add features or improve performance.