**CLOUD:**

* It delivers the computing resources such as networking services,storage services,servers,database services etc.We can access it through internet.
* It will provide the high security for our data.
* We can access the resources securely from anywhere in the world.
* There are multiple cloud providers are available such as AWS,AZURE,GCP.
* We need to pay the amount for how much time we want use the resources in cloud(pay as you go model).

**Difference between on premise and cloud :**

* In on premise everything will be maintained and managed by their own like Land,building,networking,power supply,cooling systems,hardware,servers.
* Data will be very less security in on premise compared to cloud.

**Types of cloud computing:**

1. **Service model**

* IAAS
* PAAS
* SAAS

2)**Deployment model**

* Public cloud
* Private cloud
* Hybrid cloud
* Community cloud

**IAAS:**

It stands for infrastructure as a service in which cloud can manage the infrastructure like servers ,virtualization,storage ,networking and user can manage o.s,runtime,middleware,data,application.

Example: Servers ,storage service

**PAAS:**

* It stands for platform as a service in which cloud will manage everything except data,application.
* It will provide the platform to run ,manage,build the application.

Example:

Lambda

**SAAS:**

* for software as a service in which cloud will manage everything like infrastructure including It stands application just user can use the service.

Example:

Office365

**Deployment model:**

**Public cloud:**

It is open to all everyone can access the resources from anywhere and it will managed by third parties.In this cloud data will be less security than private cloud.

Example:Aws,Azure,Gcp

**Private cloud:**

It is managed by own particular organization.users who within their organization can access their resources.Data will very secure.

Example:

IBM cloud

**Hybrid cloud:**

It is combination of both public and private cloud.If resources in public everyone can access it.

**Software Development Life Cycle:**

It is a process of developing the application based on client or customer requirenents.

There are multiple stages

* Planing
* Defining
* Designing
* Building
* Testing
* Deployment

**Planing:**

To gather the information about what all resources are required for this project.

**Defining:**

In this stage prepare the documentation regarding this project and get approval from client.

**Designing:**

In which developers develop the code.

**Build:**

Compilation will be done which meansDevelopers write the code in programming languages like python,java,c++ etc.This language will be converted into machine language and generate the artifactory .

**Testing:**

In this stage find the bugs or errors in the code and check whether the code is working properly or not.

**Deployment:**

After test the code final step is deploy the application on production environment.

Delivering the application to the customers or end users.