Provisioning

What is Cloud Provisioning ?

- Cloud provisioning means, allocating the cloud resources and facilities for a client.
- The services are provided by Cloud service provider.
- The services could be related to Infrastructure (IAAS) , platform (PAAS) or software (SAAS).
- The allocation of these services can be done either on public cloud , private cloud or hybrid cloud.

Provisioning Types

01

Pre-decided Contract / Advance Provisioning

In this type of provisioning, customer reserves the resources in advance and decides the resources type, resource category and location where these resources should be configured.

Customer has to sign the contract in advance and the billing cycle is decided between customer and cloud service provider

The customer pays either fixed-fee or Bill / month

02

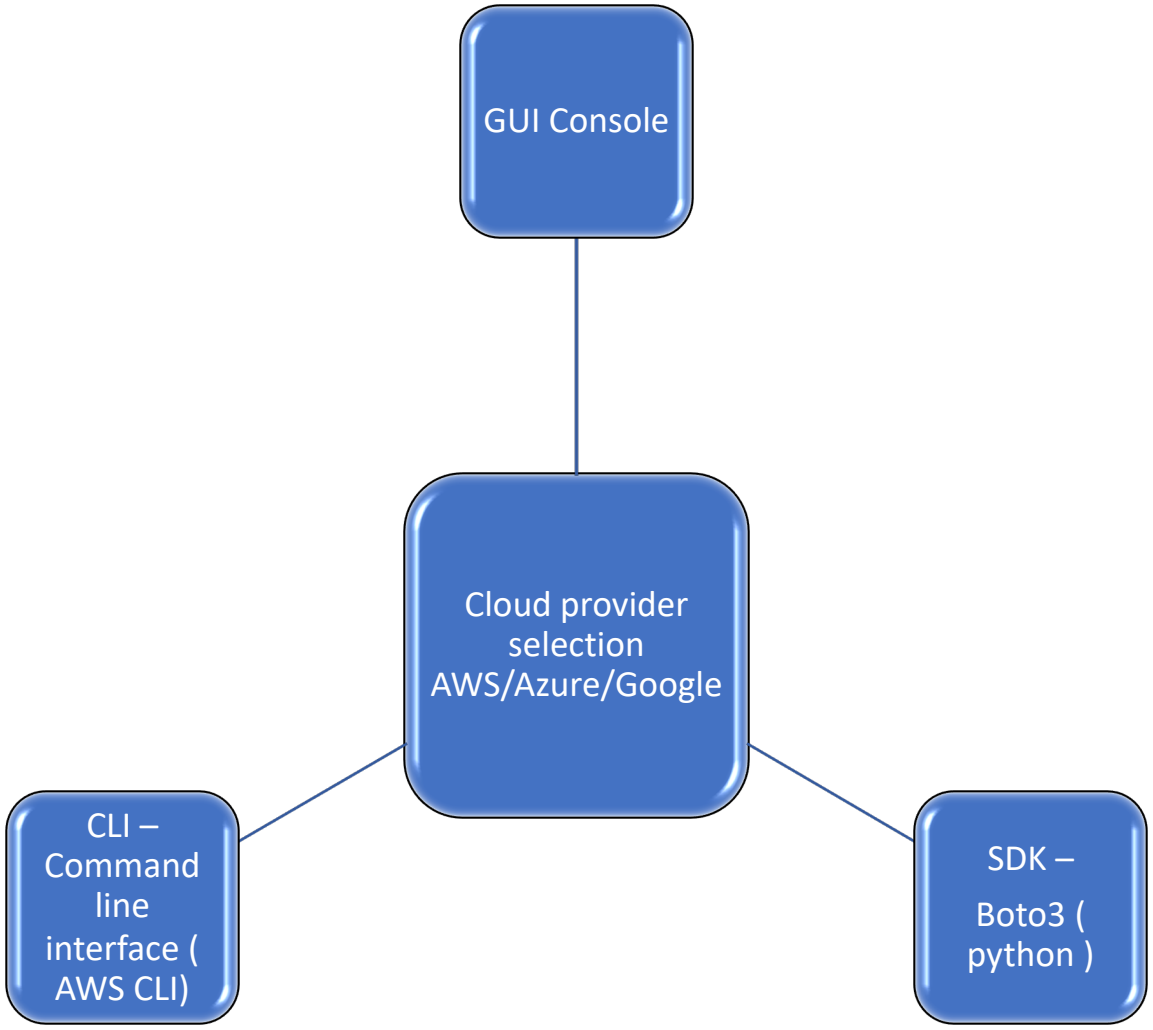
Dynamic provisioning

In this provisioning, customer can opt the resources based on their usage

Cloud provider makes arrangement of resources as per customer need and allocate them wherever customer ask to deploy.

Billing happens pay-per-usage

Way of cloud provisioning



Cloud Service Provider(CSP) - Selection

- Before start of provisioning, it is necessary to perform market research on cloud service provider selection

- We can select any one or more CSPs from below list:

    - AWS - Amazon web services
    - Microsoft Azure
    - GCP - Google cloud platform

AWS frequently used resources

1. Elastic computing cloud - EC2 instance
2. Identity and access management – IAM
3. Simple storage service – S3
4. AWS RDS
5. AWS Beanstalk

AWS Resources Overview

Computing Resource - EC2 instance:

- AWS (Amazon web service) is a broad and growing platform of cloud computing, where EC2 represents a facility which brings the capability to run and execute applications in computing environment for cloud customers.
- EC2 instance can be considered as a virtual machine and AWS do not limit the subscription of these virtual machines i.e. customers can subscribe number of EC2 instances as per their business requirement and the initial **limit or quota** can be checked against particular region for EC2 instance or other resources.

AWS resource(s) overview.. Conti..

- **EC2 instance types:**
  - Amazon gives a broad range of instance types with variety of configuration such number of CPUs, choice of RAM (Memory) and HDD/SSD storage options with security and networking features. EC2 instances are offered with different configuration and sizes to handle the workload and they are grouped in instance families.
  - The instance family group is defined based on application requirements and the name of families are categories as:-
    - **General instances -** This include instance type as M4, T2 . These instances are designed for customers who wants to execute light weight applications.
    - **Storage specific instances -** The instance type can be identified as I3 and D2. The instances are used for high performance and designed for heavy deployment of databases.
    - **Memory specific instances** – The instance type is categorized as X1, R3 and R4 and specially designed for application which occupies more RAM memory with low cost.

AWS resource(s) overview… continued

S3 bucket:

- The S3 (Simple Storage Service) bucket is a storage facility provided by Aws.
- It is considered as public cloud, folder or container where you can create folders and upload files.
- The accessibility of objects can be defined as public or private in S3
- The S3 bucket also provides the facility of static web hosting

Quiz

- **What is the full form of IAM ?**
- **What is the use of IAM ?**