Teams

Compute: Resources where memory and CPU is involved is known as compute resource.

Physical server > Hypervisor > virtual machine > Mapping name > A record

A Record: A record name with ip-address and domain-name.

Operating system vs platform

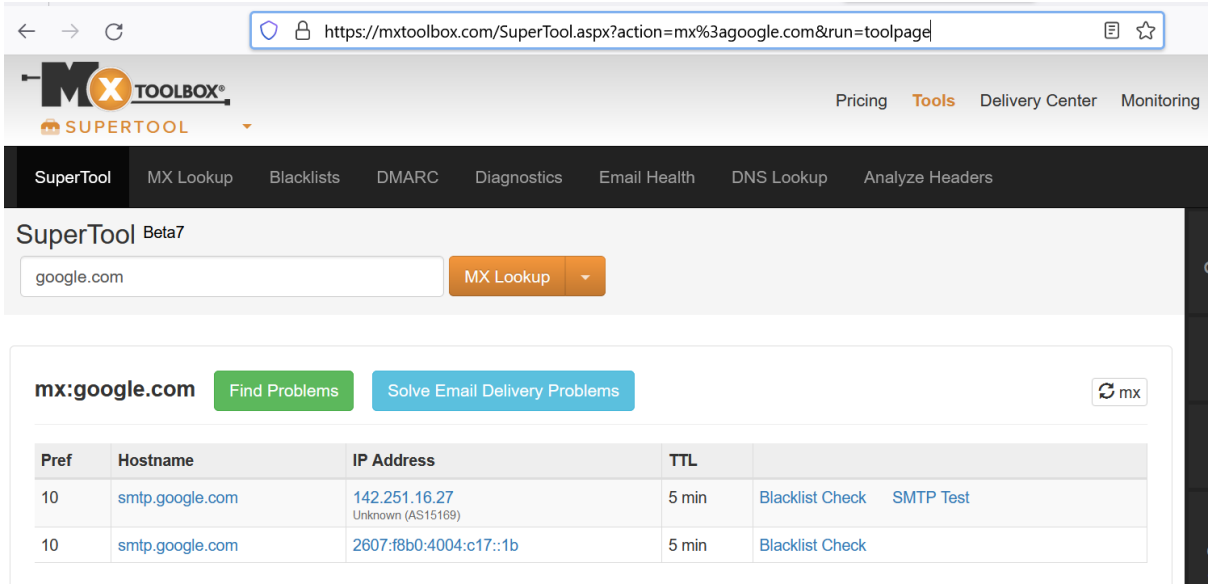
Deployment: Pushing code to server.

Endpoint: it's URL where we can hit the application.

AWS Lambda vs Azure Function [Serverless]: Pay depends to your call of function.

Latency: https://awsspeedtest.com/latency

DNS management: https://mxtoolbox.com/

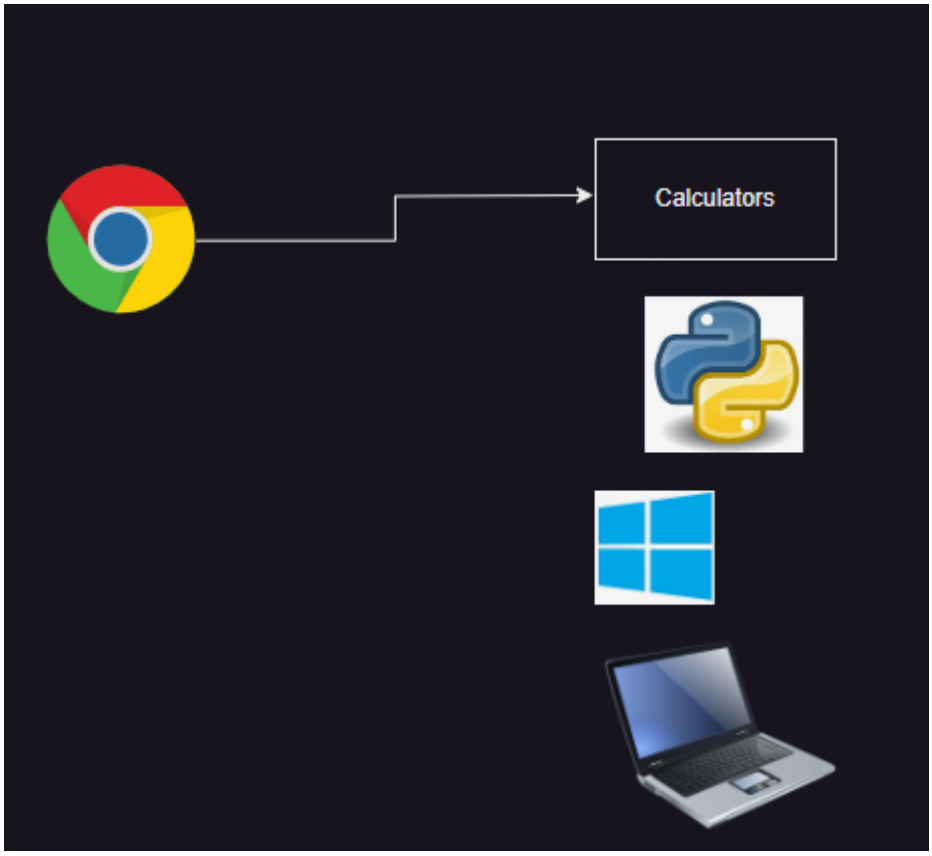


How can i use cloud to run applications

- Compute services in the cloud are used to run applications developed.
- Cloud:
    - Public Cloud
    - Private Cloud
    - Hybrid Cloud

Lets look at an Application

- We have a python based web application which has all calcultors for
    - loans
    - investments
- As of now this application is developed locally in a laptop, so lets see the options available

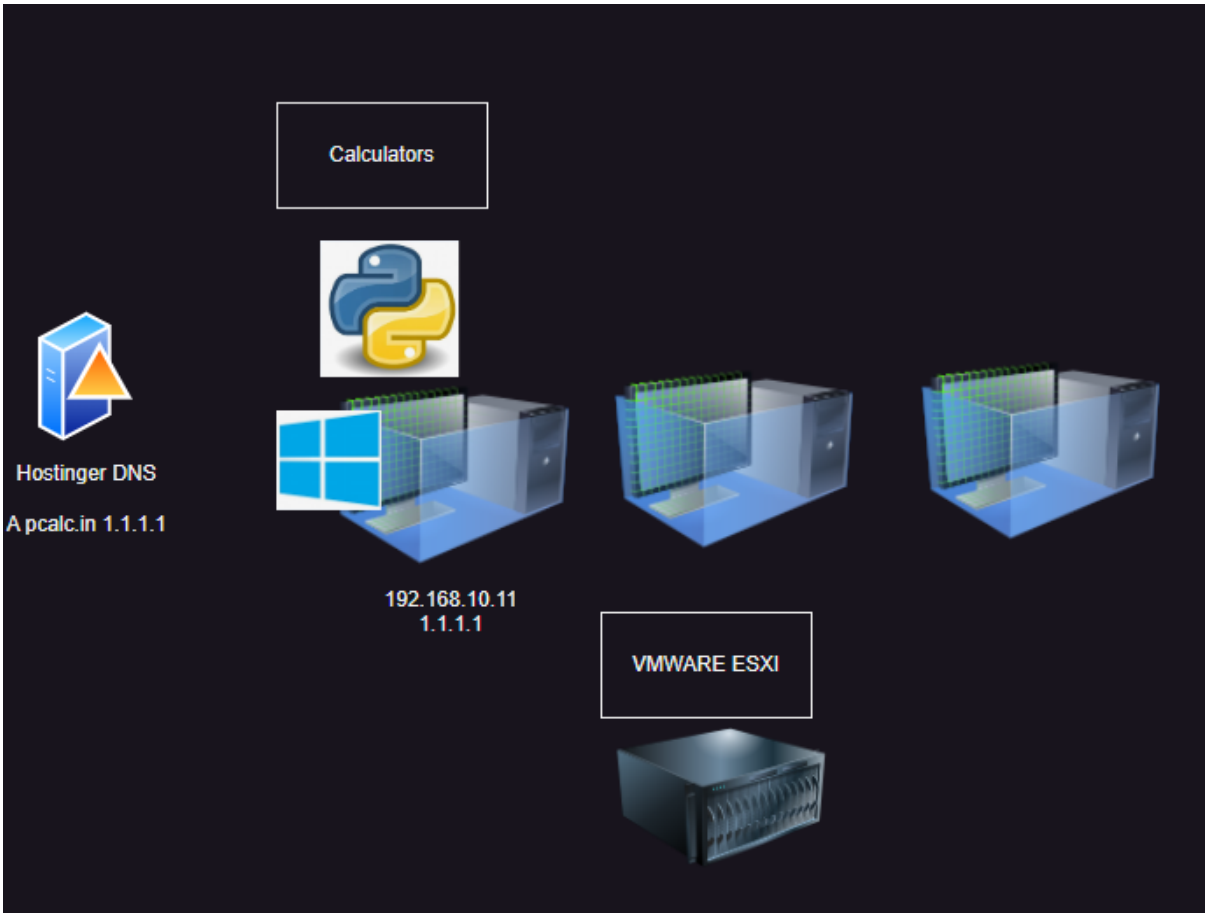


- We want to make this application public, so we have first registered a domain.
    - GoDaddy
    - Hostinger
    - AWS
- Assume we have purcased a domain `pcalc.in`
- When we buy a domain, we get DNS Servers hosted by domain seller where we have records
- Hosting Options:
    - On-premises

- Cloud

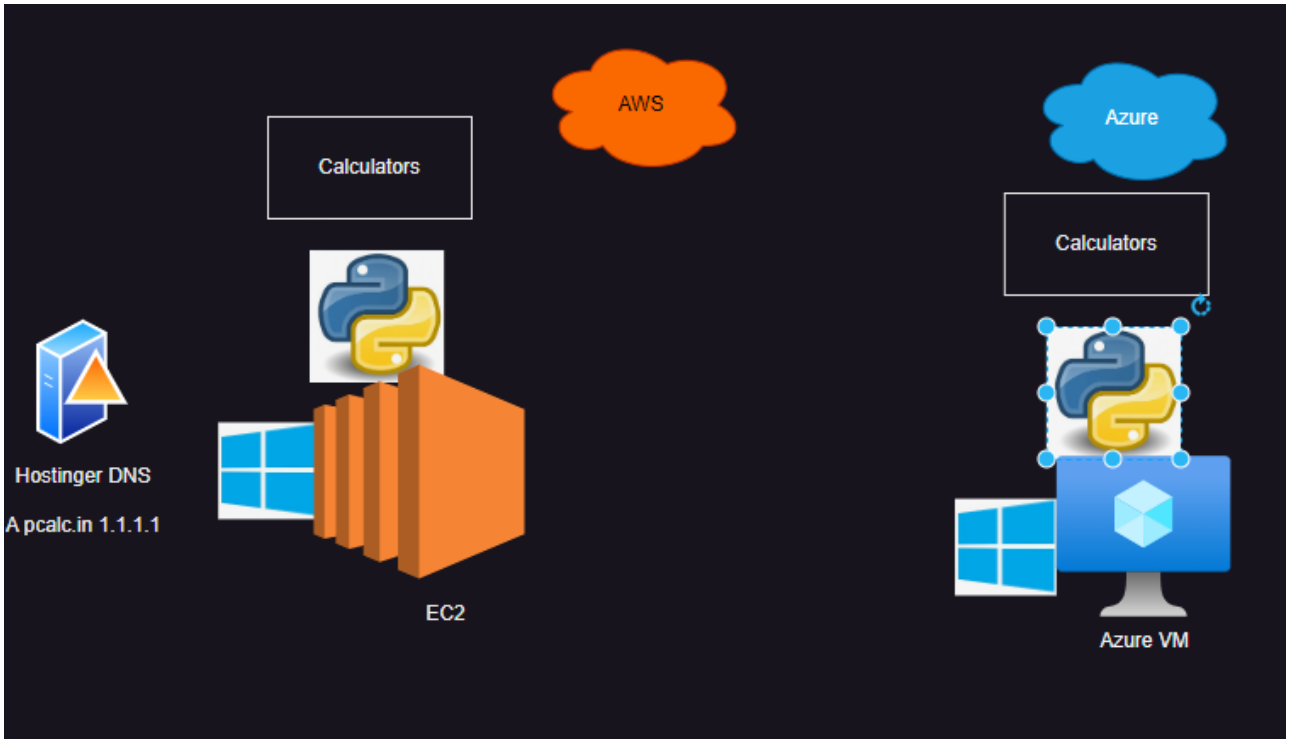
On-premises

- In On-premises we have two major options
  - Run on physical server
  - Run on virtual machine

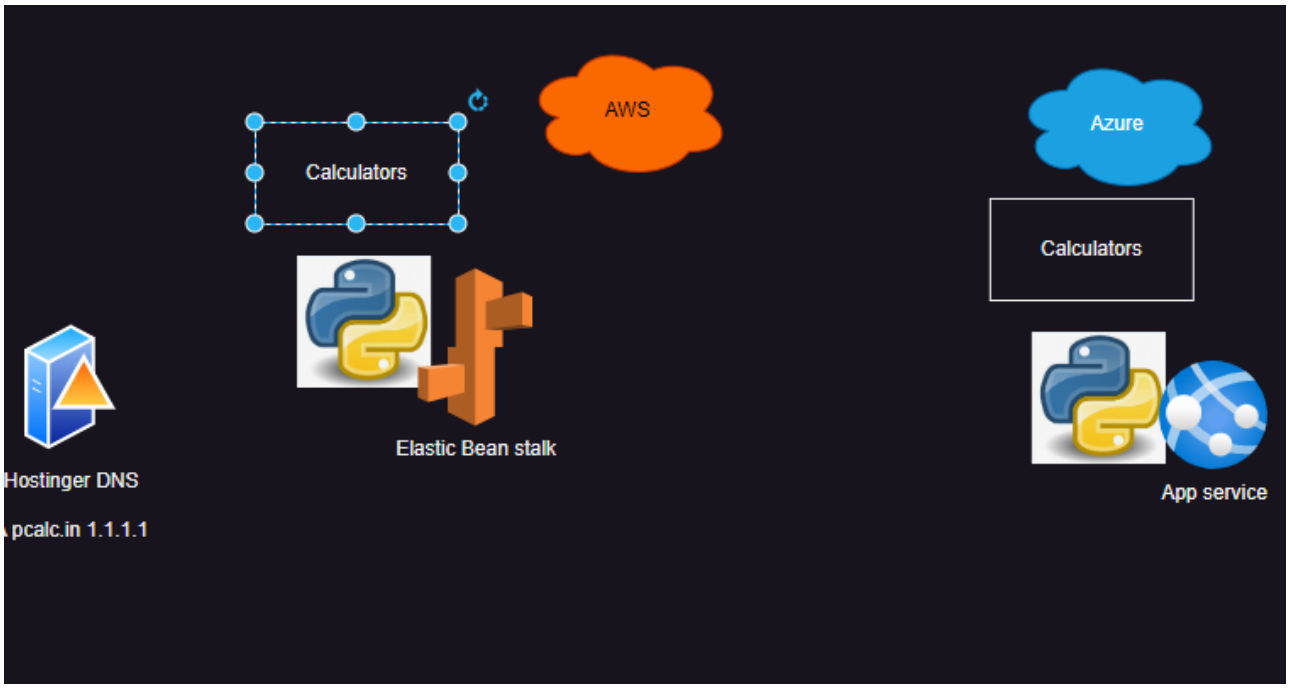


Cloud

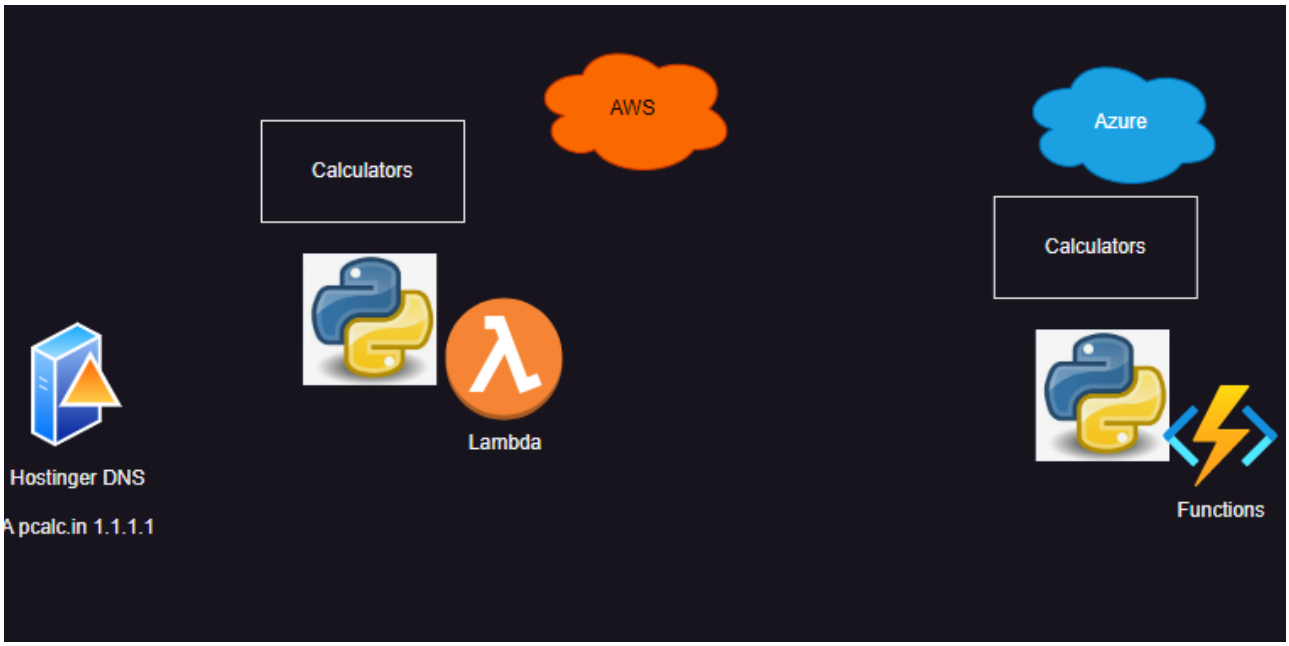
- Something closer to onprem

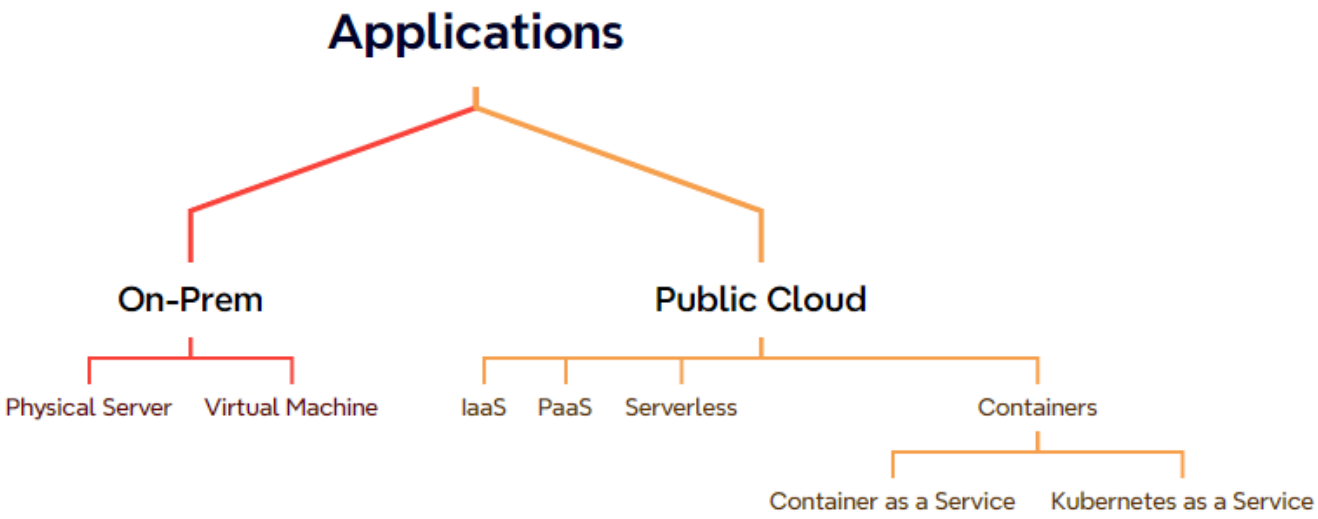


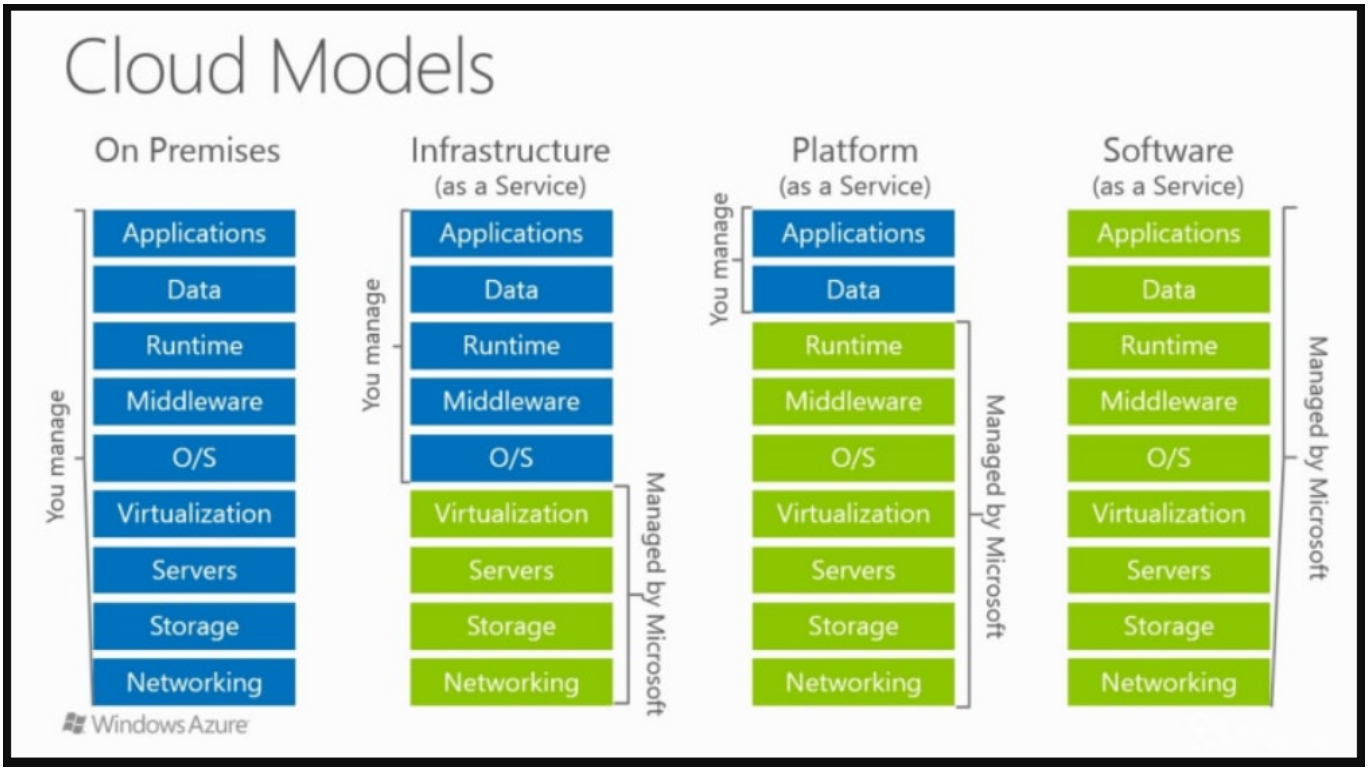
- The above mentioned approach falls under the category infra as a service (IaaS).
- Advantages in this approach
    - closer to on-prem
    - no hardware involved
- Disadvantages:
    - Still need to perform
        - os patching
        - platform patching (python, java, .net)
- Advantages inherited from public cloud
    - Deploy applications Globally
    - Low latency
- Platform as a service: In this cloud providers give execution environments according to technology/platform



- Serverless: Serverless embraces cost when the code is executing.




Applications
On-Prem
Public Cloud
Physical Server
Virtual Machine
IaaS
PaaS
Serverless
Containers
Container as a Service
Kubernetes as a Service


Cloud Models
On Premises
Infrastructure (as a Service)
Platform (as a Service)
Software (as a Service)
You manage
Managed by Microsoft
Applications
Data
Runtime
Middleware
O/S
Virtualization
Servers
Storage
Networking
Windows Azure