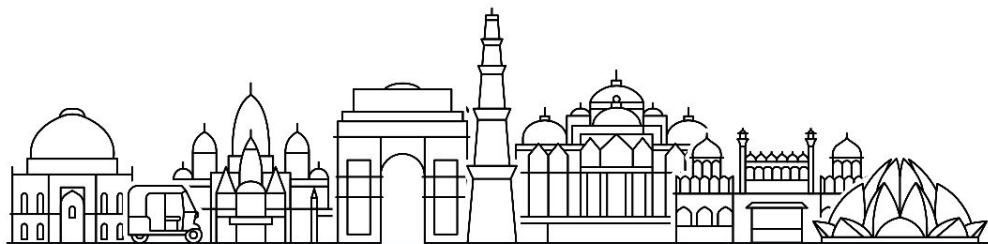


 **Welcome aboard!**  

Google Cloud Study Jam

An Introduction to Cloud Computing



Before, We Begin . . .

Quest

Perform Foundational Infrastructure Tasks in
Google Cloud

Course

Google Cloud Computing Foundations:
Infrastructure in Google Cloud

What We are Going to Learn?

01



Cloud
Fundamentals

02



Advantages of
Cloud

03



Google Cloud
Introduction

04



Key Services

05



Virtual
Machines

06



Containers



Google Developer Student Clubs
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- Hello, everyone! 🌟
- I'm Harsh, and your trainer for the evening.



Harsh Misra
Cloud Lead

Get to know your fellow attendees!

Let's kick things off by introducing ourselves and connecting with new faces. 🤝 ✨

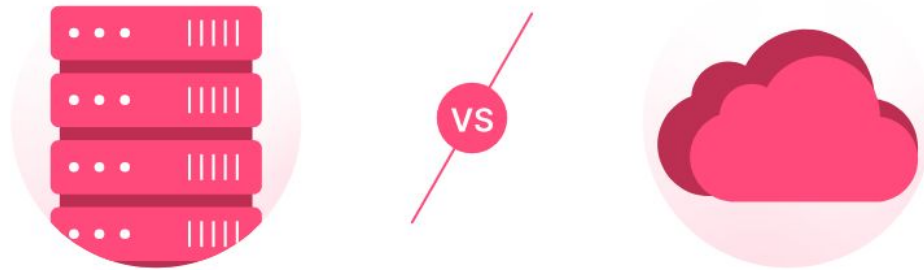
Basics of cloud computing



“Cloud computing is the delivery of computing services over the internet. These services include storage, processing, and networking. “

- **Accessibility:** It provides on-demand access to computing resources via the internet, eliminating geographical constraints.
- **Resource Sharing:** Organizations can share and utilize a common pool of resources hosted remotely.
- **Cost-Efficiency:** It reduces the need for upfront infrastructure investments, shifting to a pay-as-you-go model.

Traditional Computing V/s Cloud Computing



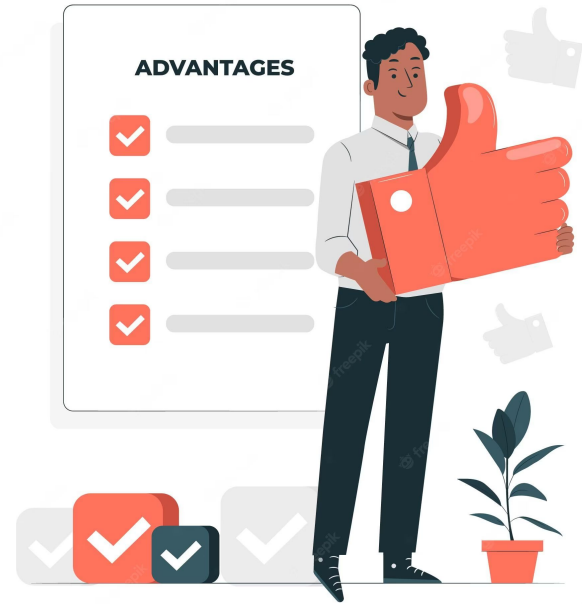
Traditional systems rely on on-premises infrastructure



Cloud computing offers a transformative shift by providing on-demand access



What are the Advantages?



- Cost-Efficiency
- Scalability
- Flexibility
- Automatic Updates
- Reliability
- Security



Cloud Service Models





On-Premises



IaaS

Infrastructure as a Service



PaaS

Platform as a Service



SaaS

Software as a Service

Applications	Applications	Applications	Applications
Data	Data	Data	Data
Runtime	Runtime	Runtime	Runtime
Middleware	Middleware	Middleware	Middleware
O/S	O/S	O/S	O/S
Virtualization	Virtualization	Virtualization	Virtualization
Servers	Servers	Servers	Servers
Storage	Storage	Storage	Storage
Networking	Networking	Networking	Networking



You Manage



Other Manages

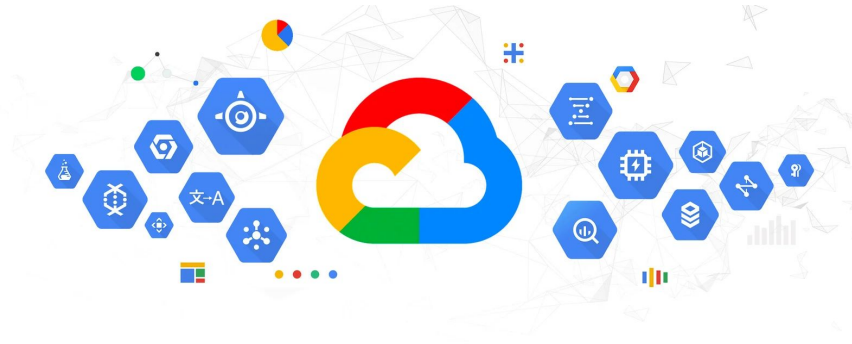
Know About Google Cloud !



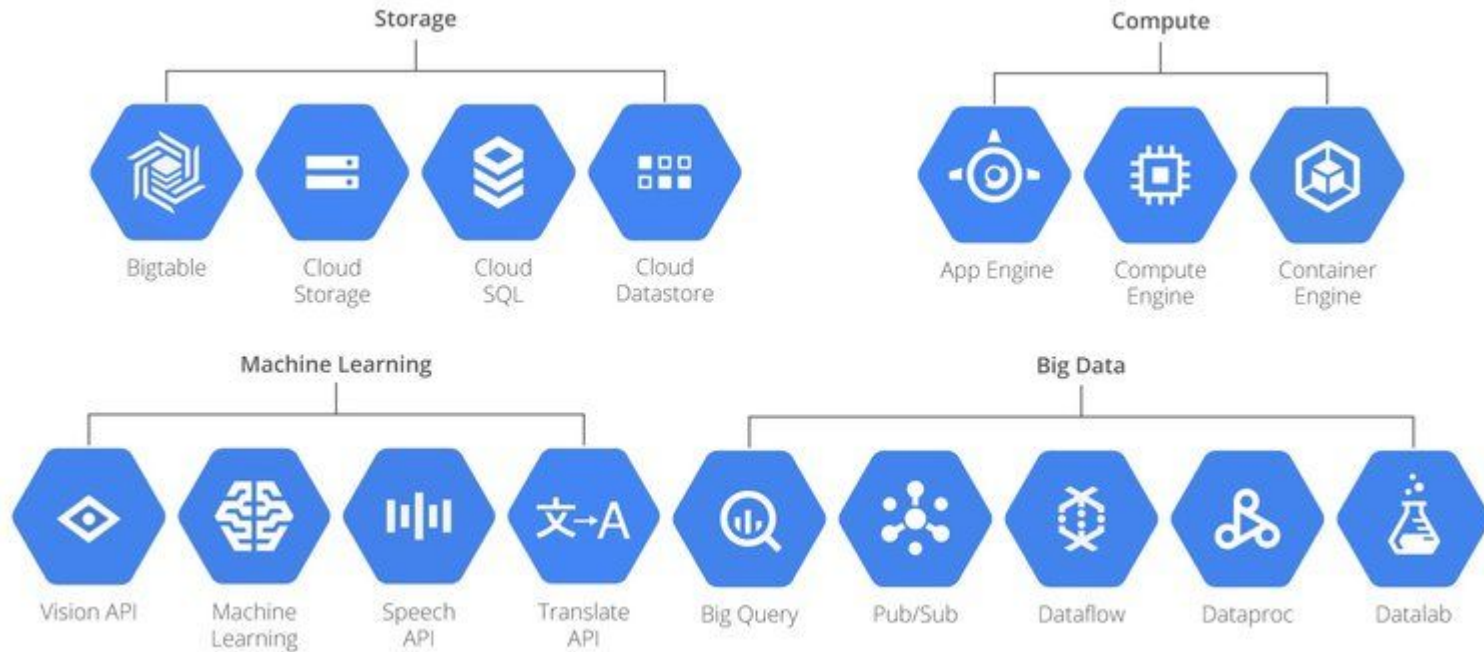
Why Google Cloud?

- ✓ It provides a wide range of tools and infrastructure for building, deploying, and scaling applications.
- ✓ Google Cloud is trusted by organizations across various industries, from startups to enterprises, for its reliability, scalability, and innovative solutions.
- ✓ Google Cloud offers certifications to validate your expertise, making it a valuable skill set for career growth in the tech industry.

What Google Cloud
Offers ?



Little glance Google Cloud Suite



Take a short break to recharge.
We'll be back soon!

```
lookup.KeyValue  
f.constant(['em  
=tf.constant([G  
lookup.StaticV  
_buckets=5)
```

Google Cloud Architecture



The Google Cloud Infrastructure

- ✓ Highest Possible Throughput
- ✓ Lowest Possible Latencies
- ✓ 100+ Caching Nodes
- ✓ High Demand Content is Cached

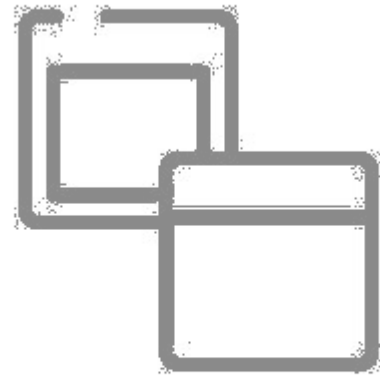
Big Data and ML Products

Compute

Storage

Network and Security

Virtual Machines

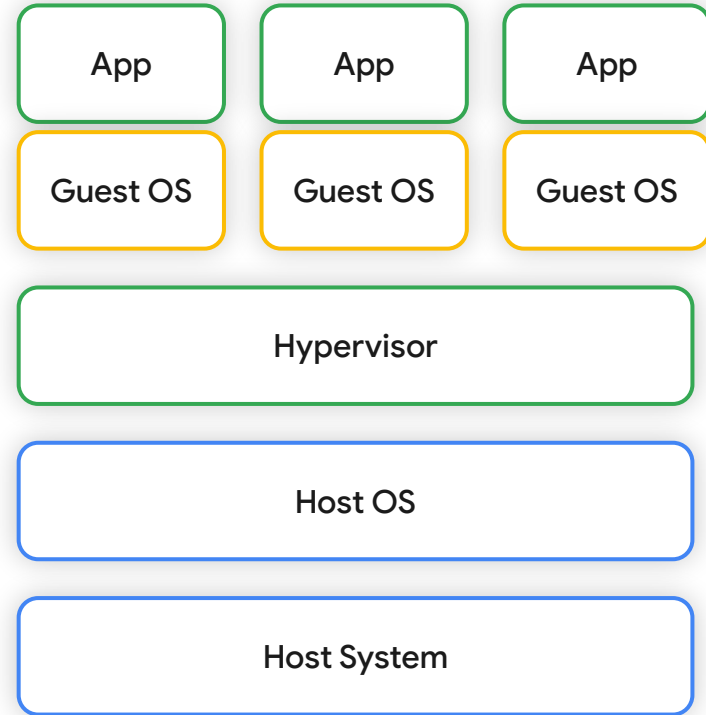


Intro to Virtualization

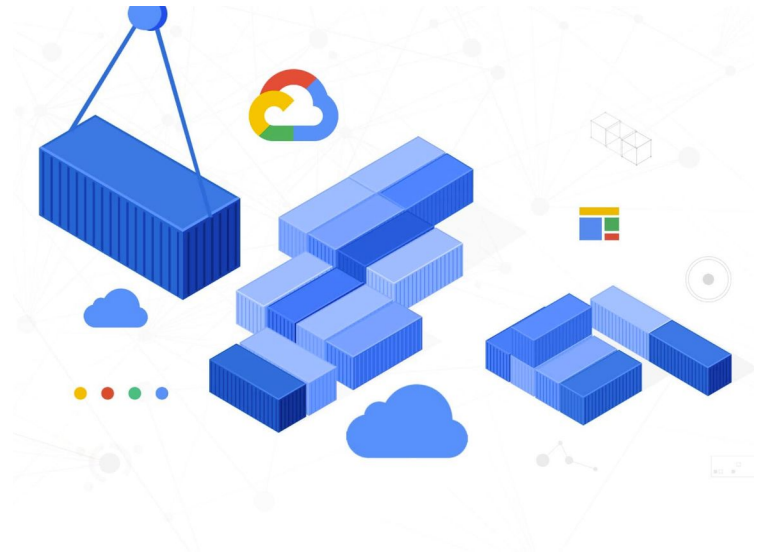
Hypervisor: A hypervisor is a crucial component in virtualization. It's a layer of software or firmware that enables the creation and management of virtual machines.

Host Operating System: The host operating system is the primary operating system installed directly on the physical server or host machine.

Guest Operating System: Guest operating systems run within the virtual machines.



Containerization



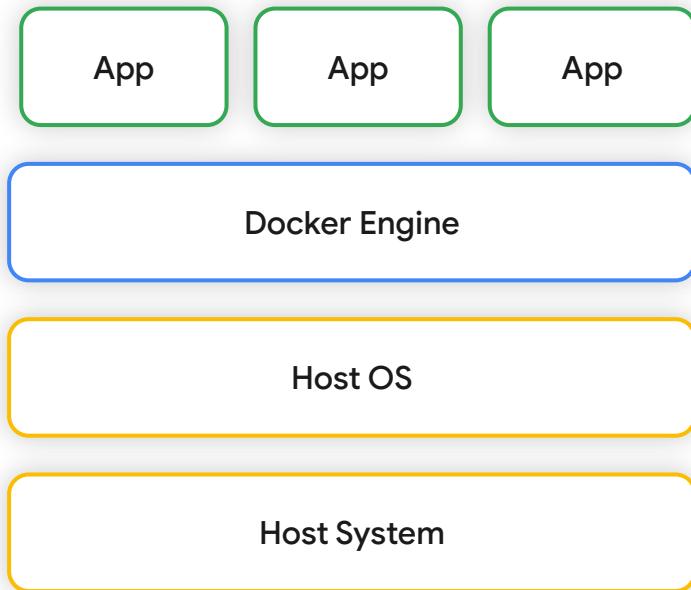
Intro to Containers

Containerization is a lightweight form of virtualization

Docker is a leading platform for containerization. It provides tools and a platform to develop, deploy, and run applications in containers.

Advantages

- Portability
- Isolation
- Resource Efficiency
- Rapid Development





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Q & A Session

Ask your Questions

```
lookup.KeyValue  
f.constant(['em  
=tf.constant([G  
lookup.StaticV  
_buckets=5)
```

The image features a solid blue background filled with various white, stylized cloud shapes. The clouds are scattered across the frame, with some appearing as simple rounded shapes and others as more complex, multi-lobed forms. In the center of the image, there is a horizontal rectangular box with a light blue gradient. Inside this box, the text "Thanks for Joining !!!" is written in a bold, white, sans-serif font.

Thanks for Joining !!!