

**TOPIC**

## SOFTWARE

DEV OPS

CIRCLE C

**DETAILS**

GITLEAB

IAAS

PAAS

FAWS	
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## Software deve

DevOps is a set of practices, tools, and a cultural philosophy that automate and integrate the processes between software development and IT teams.

The process of implementing, managing, delivering and supporting IT services to meet the business needs of internal and external users.

In computer programming, a schema (pronounced SKEE-mah) is the organization or structure for a database.

an open source code repository and collaborative software development platform for large DevOps and DevSecOps projects

Power Searching With Google makes it amazingly easy to find information. Learn about the powerful advanced tools that are o

SaaS is also known as "On-Demand Software". It is a software distribution model in which services are hosted by a cloud service provider. These services are available to end-users over the internet so, the end-users do not need to install any software on their devices.

Networks are not new (e.g., see, for a complete state-of-the-art, the massive book, *Using Servers: How to Design, Plan, and Manage Applications*—with servers and operating systems to do all the networking, storage, middleware, and

**TOPIC**

## SET UP ENVIRONMENT

[illegible]

- Discussion: 4.148 on the task is assigned. It can be visible in the TO DO LIST

3. When the task is completed shift it to the DONE LIST.

The communication is termed as "WORKSPACE"

- Cloud means 24\*7 available and Computing means Executing

TYPES-

## Private Cloud

Hybrid Cloud

AMAZON

## 000015

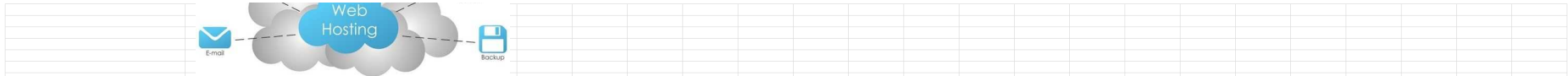
## IBM

PAAS-Platform as a service (PaaS) is a complete development and deployment environment in the cloud, with resources that enable you to deliver everything from simple cloud-based apps to sophisticated, cloud-enabled enterprise applications. You purchase the resources you need from a cloud service provider

SAAS-SaaS is also known as "On-Demand Software". It is a software distribution model in which services are hosted by a cloud service provider. These services are available to end-users over the internet so, the end-users do not need to install any software on their devices to access these services.

## Web Hosting



[illegible]

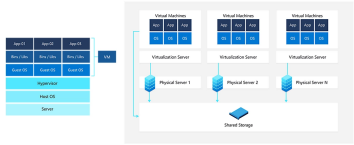

DESCRIPTION
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Web Server	Go Daddy
Difference between Hosting and uploading a website	
Uploading Hosting	Store To do live Uploading refers to transmitting data from one computer system to another through means of a network. A web hosting service is a type of Internet hosting service that hosts websites for clients
DNS- Domain Name Server	The Domain Name System (DNS) Server is a server that is specifically used for matching website hostnames (like example.com)to their corresponding Internet Protocol or IP addresses. The DNS server contains a database of public IP addresses and their corresponding domain names. Converts (for example, www.amazon.com) to machine readable IP addresses (for example, 192.0.2.44).
ICANN Registration	The Internet Corporation for Assigned Names and Numbers (ICANN) is the non-profit organization that oversees the assignment of both IP addresses and domain names. As we can purchase the domain name from any place, but we need the address of that place, so we make the process centralised to make the process easy and also it helps to not give the double domain name.
Types of Hosting	
1. Shared Hosting	With shared hosting, your account and websites will share resources with other hosting accounts on that server.  Really the only reason to choose shared hosting is the price. Because accounts share resources, shared hosting is typically the cheapest way of hosting a website.
2. VPS hosting	A Virtual Private Server (VPS) web hosting plan combines dedicated and shared web hosting features. The website content is hosted within virtually-partitioned sections on the web server to mimic a dedicated server while still sharing the server among multiple users.
3. Dedicated Hosting	With dedicated hosting, you have an entire physical server just for your site(s). You get everything and you don't need to share it with anyone else.  The main advantage of dedicated hosting is that you have full control over the physical environment.
4. Managed WordPress Hosting	Managed WordPress hosting is a type of hosting service specifically designed for websites built with WordPress. Unlike traditional hosting, managed WordPress hosting provides a more optimized and secure environment for hosting WordPress websites.  The hosting provider takes care of the technical aspects of running and maintaining the website, such as software updates, security, backups, and performance optimization
5. Co-location Hosting	Colocation hosting is an advanced type of hosting that's really only used by large businesses.  With colocation hosting, you physically own the hosting hardware. That is, you'll actually purchase the hosting servers that you want to use
Dedicated Server	Dedicated servers are web hosts that create a single server for one company or organization. Companies can use them for a variety of purposes, from running an internet website to saving data in backup storage files or email services.
Domain	Name of website, that we need to purchase (from different sites like Godaddy,bluehost, hostinger etc.)
Hosting	Space - Where a Website is Placed We need to buy ido Hosting to live the website.
Task 1	Make a free website with free hosting and domain  <b>Description</b> I made the website using INFINITY FREE Domain - LearnDomain Link -http://learnDomain.lovestoblog.com/
Task 2	Make a resume using HTML, and upload it on the website

Description
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Working on Github Desktop



Need	<p>It can run Multiple machines/Application</p> <p>It can solves softwares and Environment Mismatched</p> <p>It decreases work load</p>
Container	<p>A container is a standard unit of software that packages up code and all its dependencies so the application runs quickly and reliably from one computing environment to another.</p> <p>A Docker container image is a lightweight, standalone, executable package of software that includes everything needed to run an application: code, runtime, system tools, system libraries and settings.</p>
Virtual Machines	<p>A virtual machine, commonly shortened to just VM, is no different than any other physical computer like a laptop, smart phone, or server. It has a CPU, memory, disks to store your files, and can connect to the internet if needed.</p> <div></div>
Uses of Vm	<p>Building and deploying apps to the cloud.</p> <p>Trying out a new operating system (OS), including beta releases.</p> <p>Spinning up a new environment to make it simpler and quicker for developers to run dev-test scenarios.</p> <p>Backing up your existing OS.</p> <p>Running software or apps on operating systems that they weren't originally intended for.</p>
Containers vs Virtual machines	<div><div><p><b>CONTAINERS</b></p><p><b>USE CASES</b> Target developer and application management, also ideal for development and testing</p><p><b>SECURITY</b> Sharing OS requires root access, which may lead to data access vulnerability</p><p><b>BUSINESS BENEFIT</b> App development speeds up go-to-market of products</p><p><b>CONTINEMENT</b> Efficient use of resources maximizes use of infrastructure, reducing overall TCO</p><p><b>DEPT TOLLING</b> Easily update and provide elastic cloud services</p></div><div><p><b>VS.</b></p></div><div><p><b>VMs</b></p><p><b>USE CASES</b> Target developer and application management, also ideal for development and testing</p><p><b>SECURITY</b> Entire OS is emulated in each VM, thereby offering better data security and protection</p><p><b>BUSINESS BENEFIT</b> Automation, easy maintenance, availability, and recovery</p><p><b>COST BENEFIT</b> Less hardware to manage and upgrade, energy savings from fewer servers lower operating costs</p><p><b>DEPT TOLLING</b> Fast deployment, scale, and workload mobility make it easy to host VMs in the cloud</p></div></div>
Day 9,July 14	
Topic	Description
API	<p>API stands for <b>Application Programming Interface, which is a mechanism that allows the interaction between two applications using a set of rules.</b></p> <p>APIs are beneficial because they allow developers to add specific functionality to an application, without having to write all of the code themselves. APIs also allow developers to access data from other applications. For example, when bloggers put their Twitter handle on their blog's sidebar, WordPress enables this by using Twitter's API.</p>
Different types of API's	<p>There are four main types of APIs:</p> <p>Open APIs: Also known as Public API, there are no restrictions to access these types of APIs because they are publicly available.</p> <p>Partner APIs: A developer needs specific rights or licenses in order to access this type of API because they are not available to the public.</p> <p>Internal APIs: Also known as Private APIs, only internal systems expose this type of API. These are usually designed for internal use within a company. The company uses this type of API among the different internal teams to be able to improve its products and services.</p> <p>Composite APIs: This type of API combines different data and service APIs. It is a sequence of tasks that run synchronously as a result of the execution, and not at the request of a task. Its main uses are to speed up the process of execution and improve the performance of the listeners in the web interfaces.</p> <div></div>
Day 10,July 17	
Topic	
DEVELOPMENT WORKFLOW	
Docker Image	The Application work on Target Machine
Local Machine	Interface-Target[Test Production],Github Pages
Work/Process	<p>Follow these steps</p> <ol style="list-style-type: none"><li>1 Create a folder (ex hello-docker)</li><li>2 Open in vs code</li><li>3 Create a file (app.js)</li><li>4 Write a line (console.log("hi welcome to docker"))</li><li>5 Open terminal</li><li>6 node app.js</li><li>7 Create a new file in vs Dockerfile</li></ol> <p>[Now we take the help of docker]</p> <p>Now in dockerfile</p> <p>FROM node:alpine</p> <p>COPY ./app [folder name of app]</p> <p>WORKING ./app [telling it the working directory]</p> <p>[how to run ]</p> <p>CMD node app.js</p>



jenkins jobs are run at dynamically	
Day 13, July 20	
Project	
Day 14, July 21	
Day 15, July 24	
Topic	Description
Google Page Speed	Google image - Page Enhancement Page Speed Measure
2 Methods to measure-	Desktop Measure      Mobile Website
PWA	Progressive Web Apps (PWAs) are applications that you build by using web technologies, and that can be installed and can run on all devices, from one codebase.
Domain Authority	
Page Index	
Search Engine Optimisation	
"Content is the King"	
Page Submit in Google Webmaster	
Domain Verify	
Put Github Page in Google Web Master	
Done	
Process	