**Day-1 Topics**

1. Introduction about virtualization

2. Introduction about cloud computing

3. Overviews of Azure

4. History and evolution of Azure

**VIRTUALIZATION**

* **Intro-** it is the process of stimulating hw and sw resources such as server, storage or network in a virtual environment.

Importance of Virtualization: it allows for efficient utilization of resources, improved scalability, enhanced flexibility and cost savings in IT infrastructure

* **Types** - server

- storage

- Network

* **process** – basically one server can take place of the three and all the applications and run their different operating systems this is what virtualization does.

Basically, consolidating all of show these physical servers with their different Os, applications and running them on just one physical server in a virtual environment.

* **virtual machine** – It create virtual hardware by cloning physical hardware

The hypervisor uses virtual hardware to create a VM.

A VM is set of files.

With a hypervisor and VM, one computer can run multiple os simultaneously

* **hypervisor** – The software that creates and runs the virtualization is called Hypervisor.

It allocates and controls the sharing of machine resources such as

Storage space

RAM

CPU

Two types of hypervisor is known as TYPE 1 Hypervisor and TYPE 2 hypervisor.

**TYPE 1**

\* It installed on BARE METAL SERVER

\* That means there is no existing operating system or any other software on the machine.

\* Used for Hardware virtualisation.

\* To create VM with TYPE 1

Server case, hardware such as motherboard.

\* After build our server hardware next step is to install type 1 hypervisor on to of our bare metal server.

\* So, we can create and manage VM’s.

\* The hypervisor will allocate the server hardware resources installing different OS and installing different applications.

\* Mainly used in Enterprise Data Centre.

**Software Examples**: vmware ESXiCitrix Xen Server, Microsoft Hyper–v

**TYPE 2**

\* IT is installed and runs on top of an existing operating system.

\* Mostly used for OS virtualization.

\* Quick and easy.

**Software Examples**: Oracle virtual box, Microsoft virtual pc, vmware workstation

* **Benefits**

\* Cost savings

\* Increased flexibility

\* Improved management

\* Enhanced security

\* Business continuity

Steps:

Type 2 virtual box(oracle)

1. New
2. Name: KRCE
3. Select iso image: Others ->desktop
4. Password change
5. Divide processor and select above 50 gb(select 100 gb)
6. Finish and machine is start to reboot.

Download link for doing windows vm and puppy linux:

1. Windows – https://www.microsoft.com/en-us/software-download/windows10
2. Linux - https://distro.ibiblio.org/puppylinux/puppy-bookwormpup/BookwormPup64/10.0.10/

Steps for registration

1. Microsoft azure
2. Sign in top corner
3. Click start in first box
4. Enter your details
5. Company name : KRCE
6. Address: College Address
7. City
8. State and country

Card details

1. Cardholder name
2. Card number
3. Expiration date
4. Cvv
5. Address line 1
6. OTP