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Branch - CBA Batch - 51
Virtualization Course Report

## **Cloud and Virtualization Concepts**

This course helps us to practice the management of virtual machines, creating them, allocating and editing resources like memory, disk space, virtual network adapter, etc. and also taking snapshots, recover, connect remote disk, etc. in **VMware workstation 16** on a **Xubuntu host** machine, (Xubuntu means Ubuntu with XFCE desktop environment). There are 4 labs covering different practices of Cloud and Virtualization.

<u>Lab-1: Create a virtual machine:</u> In this lab, a virtual machine of Lubuntu, which is the LXQt flavor of Ubuntu, having a lightweight desktop environment LXQt is installed in VMware Workstation 16. Accordingly, the minimum resources are allocated configuring the disk image of Lubuntu iso file.

<u>Lab-2: Virtual machine files and snapshots:</u> Here, .vmx files of the virtual machine are explored, which is one of its configuration files stored in the directory of the VM. It is edited and observed before and after taking snapshots. Snapshots are taken for backup and recovery of the VM. New disk files can also be created for VM and added in its settings.

<u>Lab-3: Virtual Machine Cloning and Exporting:</u> In this lab, virtual machine clones are created of type linked clone and full clone in the respective directories having cloned by using a snapshot of the current VM. Also, exporting the VM is done in the OVA archive using the inbuilt option in VMware Workstation.

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<u>Lab-4: Virtual Machine Networking:</u> Here, networking options of the VM are explored and edited, like using NAT (Network Address Translation), changing subnet of VM, using bridged adapter, i.e. to connect it with physical adapter, adding new network adapter, etc.

<u>Conclusion</u>: Hence, the practicals are done here of creating, managing, backing up and restoring a VM in VMware Workstation application available for most desktop and server users for helping them to start practicing the Virtualization concepts on a base level.

## **Course completion screenshot:**

