SNS COLLEGE OF ENGINEERING

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DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

COURSE NAME: 19AD503- CLOUD COMPUTING TOOLS AND TECHNIQUES

III YEAR / V SEMESTER

Unit 5- Introduction to VMWare Simulator

Topic 4-Creating Virtual Machines

Creating virtual machines (VMs) in VMware Workstation is a straightforward process that allows you to run multiple operating systems on a single physical machine.

Step 1: Prepare for VM Creation

1. Gather Installation Media

. ISO File: Download an ISO image of the operating system you wish to install (e.g., Windows, Linux).

. Physical Media: If you have a CD/DVD, ensure it is available for use.

2. Ensure System Requirements

. Check that your host machine has sufficient resources (CPU, RAM, disk space) to support additional VMs.

Step 2: Open VMware Workstation

1.Launch VMware Workstation on your host machine.

2.If prompted, choose to either create a new virtual machine or open an existing one.

Step 3: Create a New Virtual Machine

Select “Create a New Virtual Machine”

- This option is typically found on the home screen.

Choose Configuration Type

- Typical: Recommended for most users. It streamlines the setup process.
- Custom: Allows advanced configuration options if you need specific settings.

Step 4: Select Installation Media

1.Choose the Operating System Source

- Installer Disc: If using a physical CD/DVD, select this option and insert the disc.
- Installer Disc Image File (ISO): Browse to the location of the ISO file on your hard drive.
- I Will Install the Operating System Later: If you want to create the VM without immediately installing the OS (you can do this later).

Step 5: Configure the Virtual Machine

Name the Virtual Machine

- Give your VM a meaningful name to identify it easily.
- Choose the location where the VM files will be stored on your disk.

Select Guest Operating System

- Choose the operating system type (Windows, Linux, etc.) and version from the dropdown menu.

Step 6: Allocate Resources

Processor Configuration

- Specify the number of processor cores to allocate to the VM. More cores can improve performance.

Memory Allocation

- Set the amount of RAM for the VM. A general guideline is to allocate at least 2 GB for modern OS, but it depends on the OS and applications you plan to run.

Network Connection

- Choose the network type:
  - NAT: Allows the VM to access external networks through the host.
  - Bridged: The VM will appear as a separate device on the network.
  - Host-Only: The VM can communicate with the host but not with external networks.

Disk Space Configuration

- Specify the disk size for the VM. Choose whether to store the virtual disk as a single file or split into multiple files (the latter is often better for portability).
- Select whether to allocate all disk space immediately or allow the disk to grow as needed.

Step 7: Customize Hardware (Optional)

. Click on “Customize Hardware” before finishing the setup if you need to adjust settings such as:

- Processors: Number of cores, virtualization extensions.
- Memory: Fine-tune RAM settings.
- Network Adapters: Modify network settings.
- USB Controllers: Enable or configure USB support.
- Display Settings: Adjust graphics settings for better performance.

Step 8: Finish Creating the Virtual Machine

Review Your Settings

- Go through the summary of your VM settings to ensure everything is correct.

Complete the Creation Process

- Click “Finish” to create the VM. You will see the new VM listed in your VMware Workstation library.

Step 9: Install the Operating System

1.Power On the VM

- Select the VM and click “Power on this virtual machine.”

2.Follow the Installation Process

- The VM will boot from the selected installation media.
- Follow the on-screen instructions to install the operating system, similar to how you would on a physical machine.

Step 10: Install VMware Tools (Post-Installation)

After the OS installation is complete:

1.Install VMware Tools

- VMware Tools improves performance and provides additional features (like better graphics, mouse integration, etc.).
- In the VM menu, select “Install VMware Tools” and follow the prompts in the guest OS to complete the installation.

Step 11: Additional Configurations

1. Network Settings: Adjust any necessary network settings in the guest OS.
2. Shared Folders: Set up shared folders for easy file transfer between the host and VM.
3. Snapshots: Take a snapshot to save the current state of the VM, allowing you to revert if needed.

Conclusion

Creating a virtual machine using VMware Workstation involves several straightforward steps, from gathering installation media to configuring resources and installing the operating system. Once set up, VMs provide a flexible environment for development, testing, and learning, allowing you to simulate various computing scenarios without the need for additional physical hardware.

Thank You...