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Windows Basics:

Operating System

- windows os
- Linux os
- ~~mac os~~

Windows OS: version

- Server \rightarrow send. (link DHP, DWS)
- Client \rightarrow client will ask for service

functionalities

Server OS windows

- \rightarrow windows NT (very old)
- windows 2003
- w 2008
- w 2008 R2 (release v2)
- W 2012
- \rightarrow w 2012 R2
- \rightarrow current
- \rightarrow w 2016
- \rightarrow w 2019
- w 2022
- w 2025

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Client OS windows

- windows XP
- windows vista
- ~~w 7~~
- w 8-0
- w 8.1
- w 10
- w 11

We have to download 2 iso file for server and client each.

Basic hardware requirement for w10

Processor

- 1 gigahertz or faster processor or system on a chip (SoC)

RAM:

- 1 GB for 32-bit or 2 GB for 64-bit.

Hard drive space:

- 16 GB for 32 bit os or 20 GB for 64-bit os

Graphics card:

- Direct X 9 or later with wddm 1.0 driver.

Display:

- 800 X 600 resolution.

Basic hardware req. for W11:

Processor:

- 1 Gigahertz (GHz) or faster with at least 2 cores on a compatible 64-bit processor & sys. on a chip (SoC)

RAM:

- 4 GB or more

Storage:

- 64 GB or larger.

System firmware:

- UEFI, Secure Boot capable.

TPM

- Trusted Platform Module (TPM) v 2.0

Graphic card:

- DirectX 12 compatible graphics / WDDM 2.x

Display:

- > 9" with HD Resolution (720p)

Internet connection:

- necessary to updates and take advantages of some features.

W10 features:

W7 & W10

1. Boot time

- win7 → more time
- win10 → less time to boot

2. Installing the OS

- win7 → 45 mins
- win10 → 15 mins

W10 features

Key features:

- Start menu
- Cortana : integrated virtual voice assistant
- Microsoft Store
- Continuum :- desktop/tablet smot transition
- Security:
- updates.

Win 11 features:

- New Start menu & Taskbar
- Snap layouts and Snap Groups
- Virtual Desktops
- Widgets
- Microsoft Teams Integration

[Run-summer ; To know or]

Windows editions Win 10

1. Windows 10 Home
2. Windows 10 Pro
3. Windows 10 Pro for Workstations
4. Windows 10 Enterprise
5. Windows 10 Education
6. Windows 10 Mobile
7. Windows 10 Mobile Enterprise
8. Windows 10 IoT Core

Win 11 editions

1. Windows 11 Home
2. Windows 11 Pro
3. Windows 11 Enterprise
4. Windows 11 Education
5. Windows 11 SE

Windows One-Drive: (cloud solution)

Key features:

- File Storage
- Accessibility
- File sharing
- Syncing
- Security
- Integration with Microsoft 365
- Version History -> Versioning -> DevOps
- Offline Access

Windows 10 Cortana:

Virtual assistant.

Key features:

- Voice commands
- Reminders and Alarms
- calendar management
- Email Assistant
- Web searches
- Task management
- Information and updates
- smart Home Integration
- music and entertainment
- Notebook feature
- Multi Device sync
- security & privacy.

Win 10 Administration:

• Control panel

Access to various system settings and configuration

• Device Manager:

- Manages hardware devices & drives.

[Run ~~disk~~ diskmgmt.msc]

• Disk management:

- Tools for managing disk partitions and volumes

• Task Manager:

- monitoring system performance & running apps

• Event viewer:

- Logs and reviews system events and errors.

• Computer management:

• Administrative Tools:

• Local Group Policy Editor

Registry Key

- Windows update:

- Backup and Restore:

VM configuration

- Done (Steps are in PPT)

installing vm :

St 1 :- > Power on vm

St 2 :- press any keys. (immediately do it)

St 3 :- Windows Setup:

no change

next

St 4 :- Install now ← click it

St 5 :- I don't have a product key (Go days trial)
free

Problem: will power off 30 min

St 6 :- Windows 10 Home → next

St 7 :- Accept licence

next

St 8 :- Type of installation?

Custom ← click

St 9 :- Next

St 10 :- Reboot/Restart auto in 10 sec

St 11 :- India

St 12 :- US

St 13 :- no need to add 2nd keyboard

St 14 :- I don't have internet

St 15 :- Continue with limited setup

St 16 :- Name: Charan. next ← -- Charan.

St 17 :- Password (confirm pass) → Charan@2004.

St 18 :- random select any one

St 19 :- Accept privacy.

St 20 :- Cortana ← accept

Dog ← Pet

~~Dog~~ city → Put Hur

~~Dog~~

Childhood → Charan

Steps

Tool Setup

Step 1: right click on VM name.

Step 2: install VMware tools.

with the
autoplay

User account

Do you want

yes

next

Default Typical type next

Click install to begin

click ← install

Finish,

You should verify

Double click on wave tools.

Windows Boot Process:

• cold boot

• Hard/warm boot

Windows Boot Process:

BIOS & Setup Program



POST Test



The OS Loads



System configuration



System utilities loads



User Authentication.

1. BIOS/EFI

BIOS - Basic input output system.

Boot sequence

- search for the OS in the following places in the following order.

1. HDD/IDE --> search for the OS in the HDD (already installed)
2. CD/DVC --> boot (install the OS) from CD/DVC
3. PXE boot --> check the OS in the network (wds)