

1. Set up a Workgroup network between two computers

Step 1: Connect Both Computers to the Same Network

Ensure both computers are connected to the same local network, either via Wi-Fi or Ethernet. This allows them to communicate with each other over the same IP range.

Step 2: Configure the Workgroup on Each Computer

1. **Open System Properties:**
 - **Windows 10 and 11:** Right-click the **Start Menu** > **System** > scroll down to **About** > **Advanced System Settings**.
 - **Windows 7 and 8:** Right-click **Computer** > **Properties** > **Advanced System Settings**.
2. **Set the Workgroup Name:**
 - In the **System Properties** window, go to the **Computer Name** tab and click **Change**.
 - Under **Member of**, select **Workgroup**.
 - Enter a name for your Workgroup (e.g., WORKGROUP). Ensure both computers use the same Workgroup name.
 - Click **OK** and restart the computer if prompted.
3. **Repeat** the above steps on the second computer, making sure both computers are in the same Workgroup.

Step 3: Enable Network Discovery and File Sharing

On each computer, enable network discovery and file sharing so they can find each other on the Workgroup.

1. **Open Network Settings:**
 - Go to **Control Panel** > **Network and Sharing Center** > **Change advanced sharing settings**.
2. **Enable Network Discovery:**
 - Under **Private** (or **Current Profile**), enable **Turn on network discovery** and **Turn on file and printer sharing**.
3. **Disable Password-Protected Sharing** (optional):
 - Under **All Networks**, you can disable **Turn off password-protected sharing** if you want easier access without logging in. Only do this if you are in a secure network.

Step 4: Share a Folder on Each Computer

To test the Workgroup network, share a folder and set permissions.

1. **Select a Folder to Share:**
 - Right-click a folder > **Properties** > **Sharing** tab.
2. **Share the Folder:**
 - Click **Share** and choose **Everyone** if you want both computers to have access.
 - Set permissions (Read or Read/Write) and click **Share**.
3. **Note the Network Path:**
 - After sharing, note the network path (e.g., \\ComputerName\SharedFolder).

Step 5: Access the Shared Folder from the Other Computer

1. **Open File Explorer** on the other computer.
2. **Go to Network:** In the sidebar, click **Network** to view available devices.
3. **Select the Other Computer:** Double-click the computer you want to access.

4. **Open the Shared Folder:** You should see any shared folders here and be able to open or copy files based on the permissions set.

2. Configure a static IP address and test connectivity.

1. Open Network Settings:

- Go to Control Panel > Network and Sharing Center > Change adapter settings.
- Right-click on your active network connection (Wi-Fi or Ethernet) and select Properties.

2. Set a Static IP:

- In the Properties window, select Internet Protocol Version 4 (TCP/IPv4) and click Properties.
- Select Use the following IP address.
- Enter the following:
 - IP address: Choose an IP address within your network's range (e.g., 192.168.1.100 for one computer and 192.168.1.101 for the second).
 - Subnet mask: This is usually 255.255.255.0 for small networks.
 - Default gateway: Enter the IP address of your router (e.g., 192.168.1.1).
- For Preferred DNS server, you can use your router's IP or a public DNS server like 8.8.8.8.

3. Save Settings:

- Click OK to save the settings, and then Close all windows.

3. Establish a small local network and test file sharing.

1. Set Up the Network

You'll need two or more computers connected to the same local network. Here's how to do it:

- Using a Router: Connect each computer to the router via Wi-Fi or Ethernet cable. If you're in an office or home with an existing Wi-Fi router, connecting to the same network should suffice.
- Direct Connection: You can also connect two computers directly using an Ethernet cable (crossover cable, if necessary).

2. Enable File Sharing on Each Computer

Set up file sharing on each computer to allow easy access to shared files:

1. Go to Settings > Network & Internet > Status.
2. Select Sharing options (under "Network and Sharing Center").
3. Enable Network Discovery and File and Printer Sharing.
4. For easier access, turn off password-protected sharing (optional).
5. Share a folder by right-clicking on it, selecting Properties, then Sharing, and enabling Share this folder.

4. Enable Remote Desktop on one computer and connect to it from another device.

Step 1: Enable Remote Desktop on the Host Computer

1. **Open Settings:** Go to Settings > System > Remote Desktop.
2. **Enable Remote Desktop:** Turn on the Enable Remote Desktop option.
3. **Confirm Changes:** Click Confirm when prompted. This will allow remote connections to this computer.
4. **Adjust Firewall Settings:** Windows should automatically configure the firewall to allow Remote Desktop, but if there are issues, check the firewall settings to make sure Remote Desktop is allowed.
5. **Note the Computer Name:** Under Remote Desktop settings, note the PC name (you'll need this to connect later).

Step 2: Connect to the Host Computer from Another Windows Computer

1. **Open Remote Desktop Connection:** On the computer you want to connect from, press Win + R, type mstsc, and press Enter.
2. **Enter the Host Computer's Name:** In the Remote Desktop Connection window, enter the host computer's name or IP address (found in Step 1).
3. **Log In:** When prompted, enter the username and password for an account on the host computer that has permission to access Remote Desktop.

5. Configure file sharing for a folder and manage permissions.

Step 1: Share the Folder

1. **Locate the Folder:** Right-click on the folder you want to share and select Properties.
2. **Go to the Sharing Tab:** Click on the Sharing tab, then click Share.
3. **Select Users:** In the sharing window, type the name of the user you want to share with or select Everyone if you want to make the folder accessible to all users on the network.
4. **Set Permission Level:** You can set permission levels for each user or group (Read or Read/Write).
5. **Share the Folder:** Click Share and note the network path provided

Step 2: Manage Permissions for the Shared Folder

1. **Advanced Sharing:** In the Sharing tab, click Advanced Sharing > Permissions.
2. **Set Permissions:** In the permissions window, select a user or group and configure the following permissions:
 - **Read:** Allows viewing and reading files.
 - **Change:** Allows editing, deleting, and adding files.
 - **Full Control:** Grants all permissions, including changing permissions.
3. **Apply Changes:** Click Apply and OK to save your settings.

Step 3: Adjust NTFS Permissions (Optional)

1. **In the folder Properties,** go to the Security tab.
2. **Edit Permissions:** Select a user or group, and customize permissions (Read, Write, Modify, etc.).
3. **Apply:** Click Apply and OK to confirm.

