



Faculty of Engineering

How to improve and secure your PC performance.

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CONTENT

How to improve PC performance

How to Secure PC performance

Improve

to get better or to make something better

Computer performance is the amount of useful work accomplished by a computer system.

Secure

to make certain something is protected from danger or risk

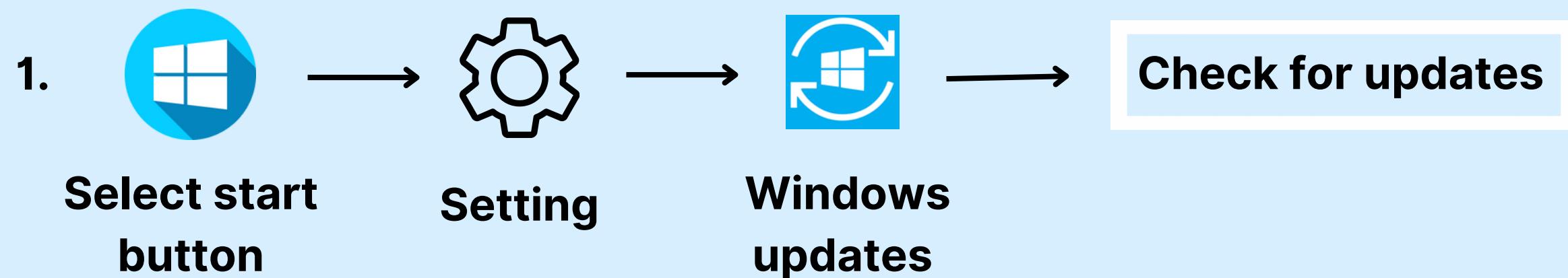
HOW TO IMPROVE PC PERFORMANCE ?

10 - WAYS TO IMPROVE PC PERFORMANCE

- Make sure you have the latest updates for Window and device driver
- Restart your PC and open only the apps you need
- Use ReadyBoost to help improve performance
- Make sure the system is managing the page file size
- Check for low disk space and free up space
- Adjust the appearance and performance of Windows
- Pause OneDrive syncing
- Disable unnecessary startup programs
- Check for and remove viruses and malware
- Restore your PC from your a system restore point

1. Make sure you have the latest updates for Window and device driver

To check for updates :



2. Do one of the following:

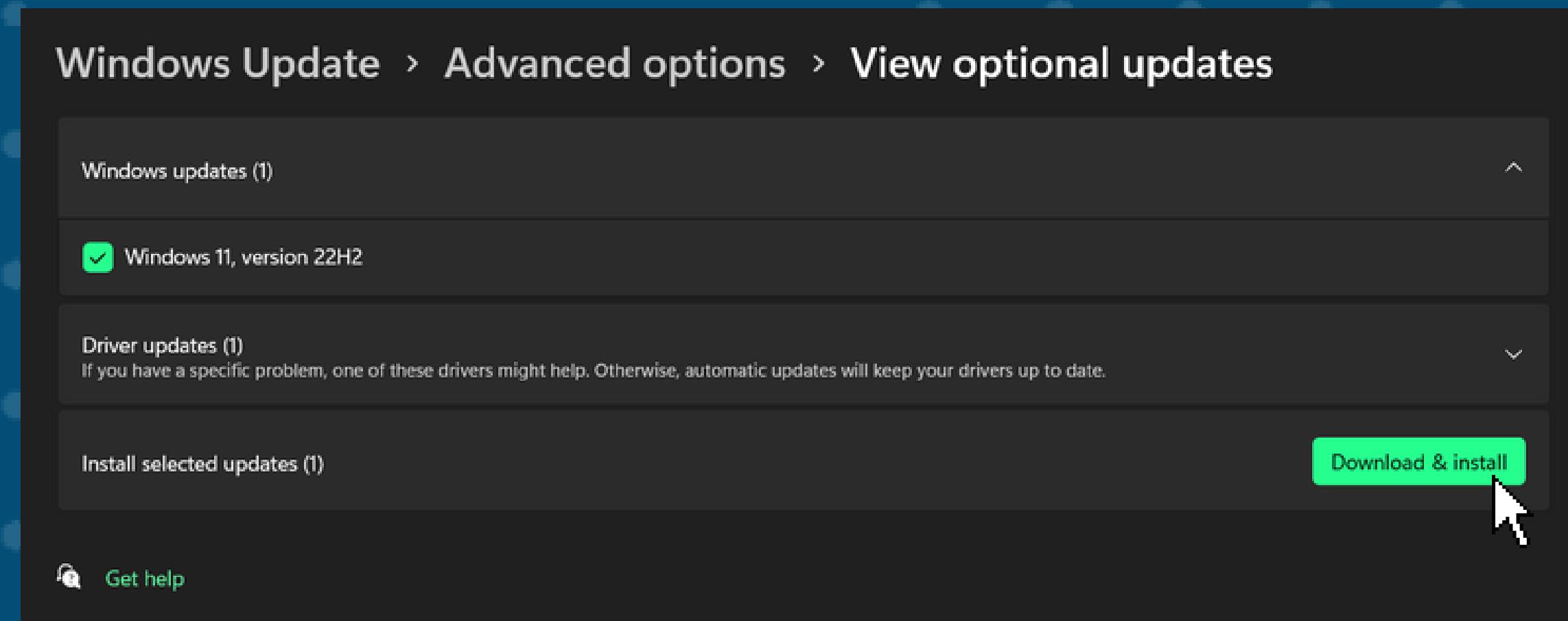
- Update if updates are available.
- Continue and **check for optional updates** if you're already up to date.

3. Select updates then select Install.

4. Restart PC

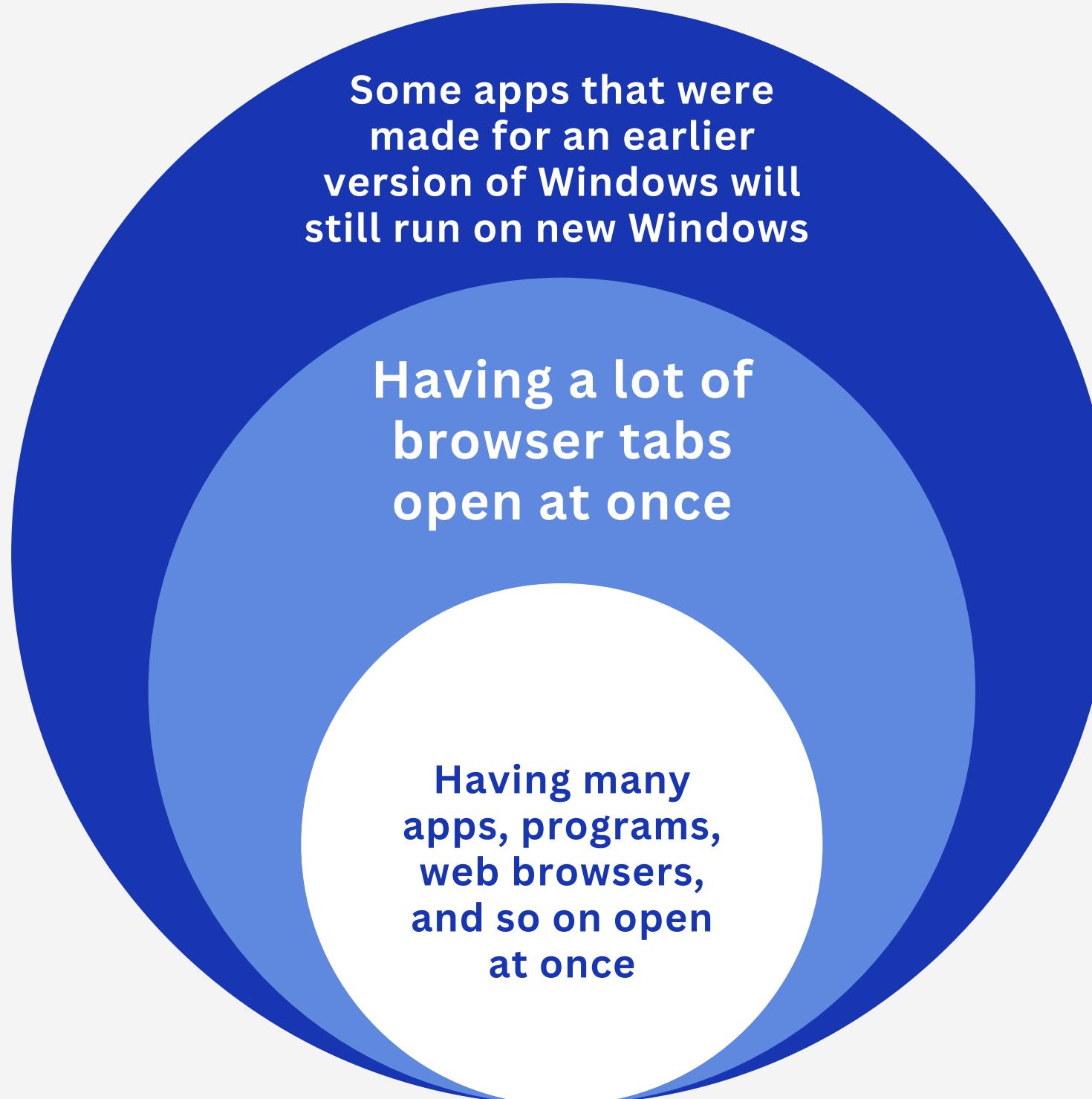


To check for optional updates :

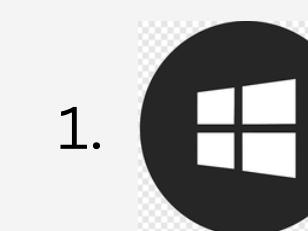


If additional updates are available, select them and then select Download & install, then restart PC.

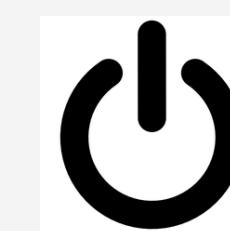
2. Restart your PC and open only the apps you need



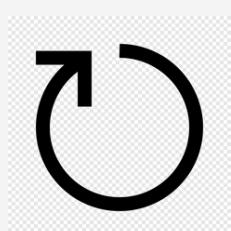
- To restart your PC



1.



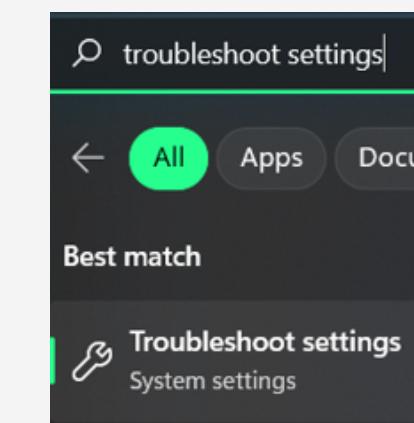
Power button



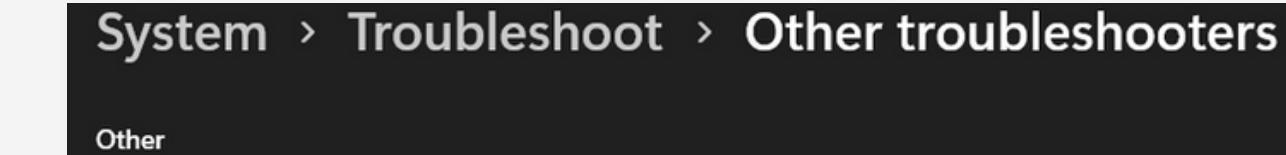
Restart button

2. After PC restarts, open just the apps you need, then close them when you're done.

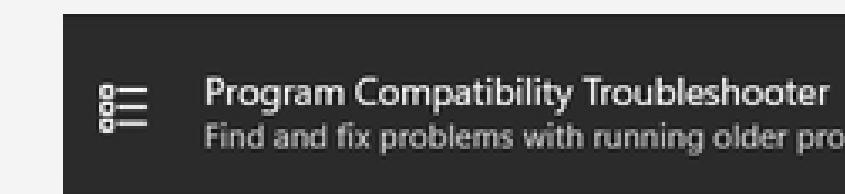
- To run the Program Compatibility Troubleshooter



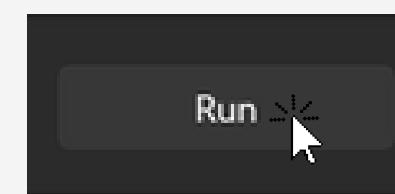
1.



Other



Program Compatibility Troubleshooter
Find and fix problems with running older pro...



Run

2. Select the program that having problems with, then select Next and continue through the troubleshooter.

Reasons to make PC performance slowly

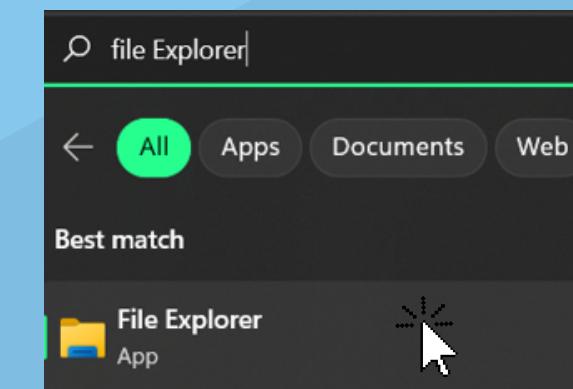
3. USE READYBOOST TO HELP IMPROVE PERFORMANCE

We can use ReadyBoost like a USB flash drive to improve your PC's performance without opening your PC and adding more memory (RAM).

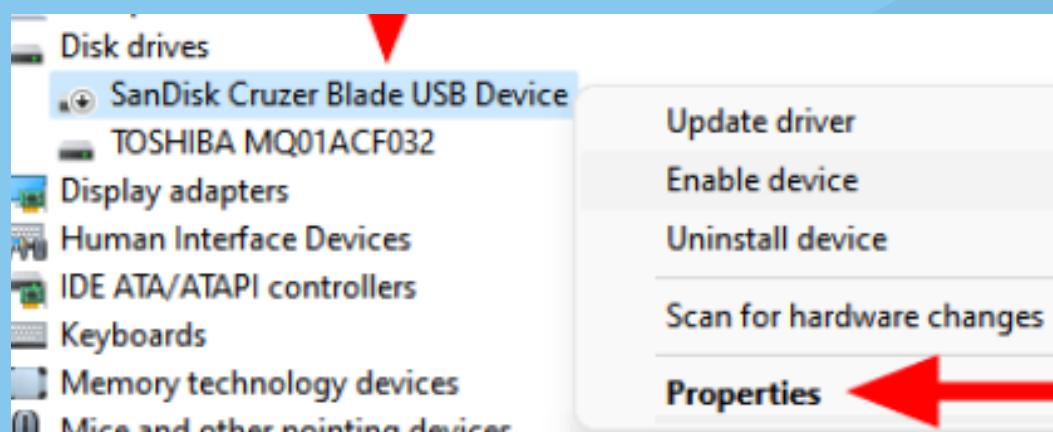
1) Insert the USB flash drive



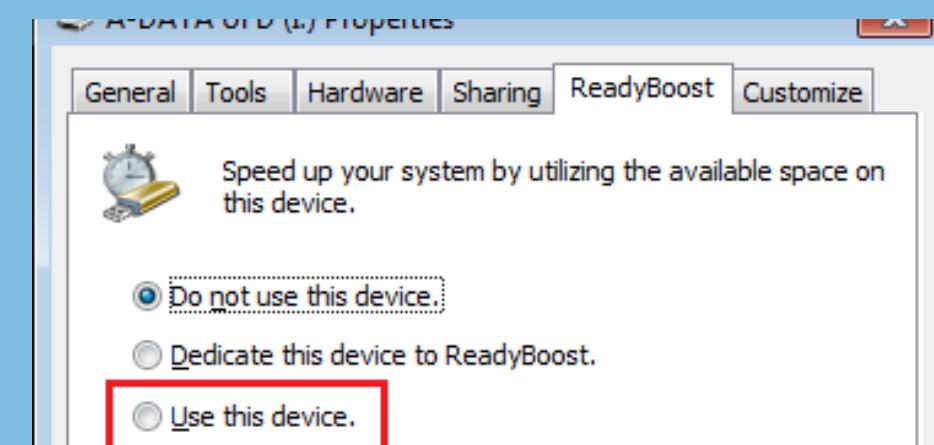
2) File Explorer from the taskbar



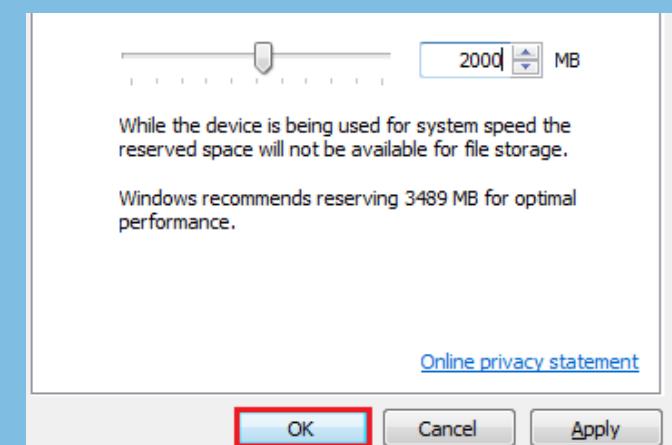
3) Select Properties



4) ReadyBoost tab, Use this device.



5) Select Ok

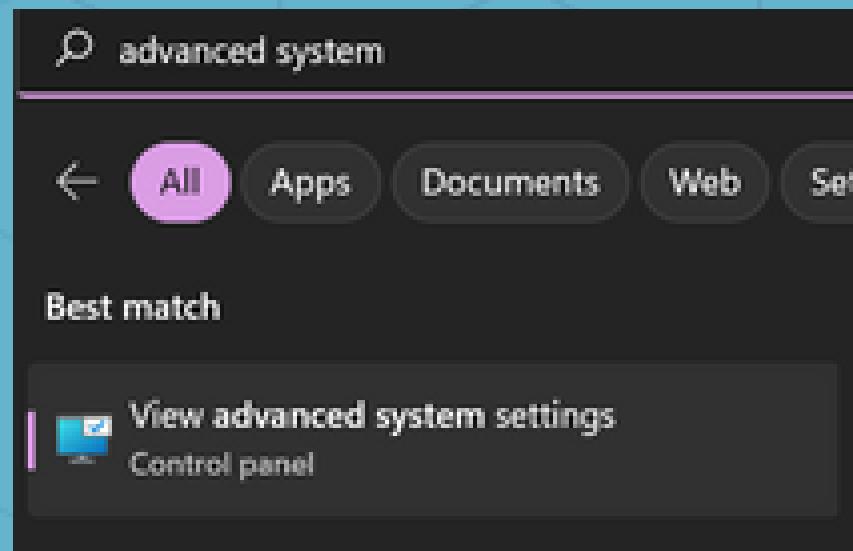


Note: ReadyBoost can't be used if Windows is installed on a solid state drive (SSD).

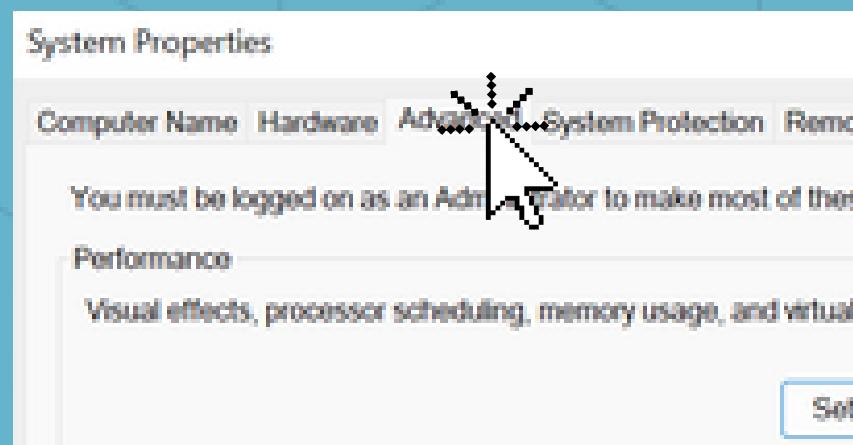
Choeng Khengseang

4. Make sure the system is managing the page file size.

- TO TURN ON AUTOMATIC PAGE FILE MANAGEMENT

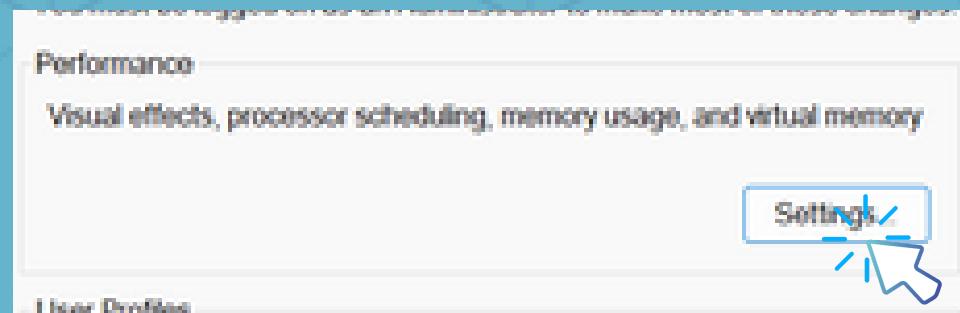


1) View advanced system settings

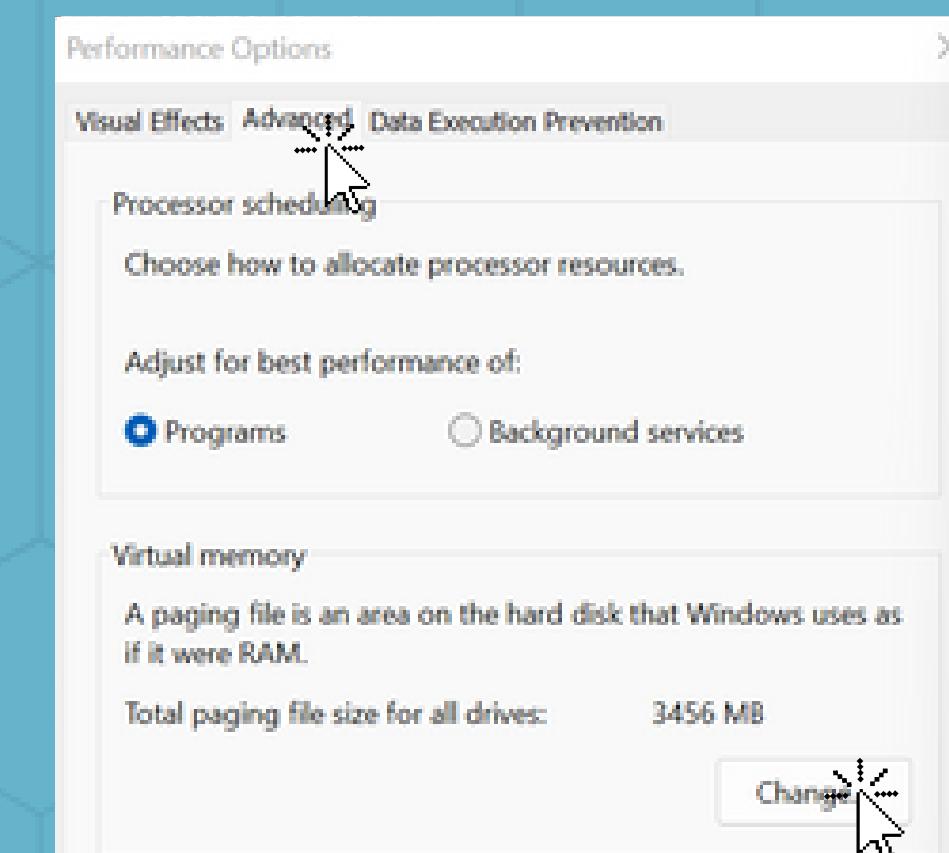


2) In system properties
Click on advanced tab

3) Click on setting of performance

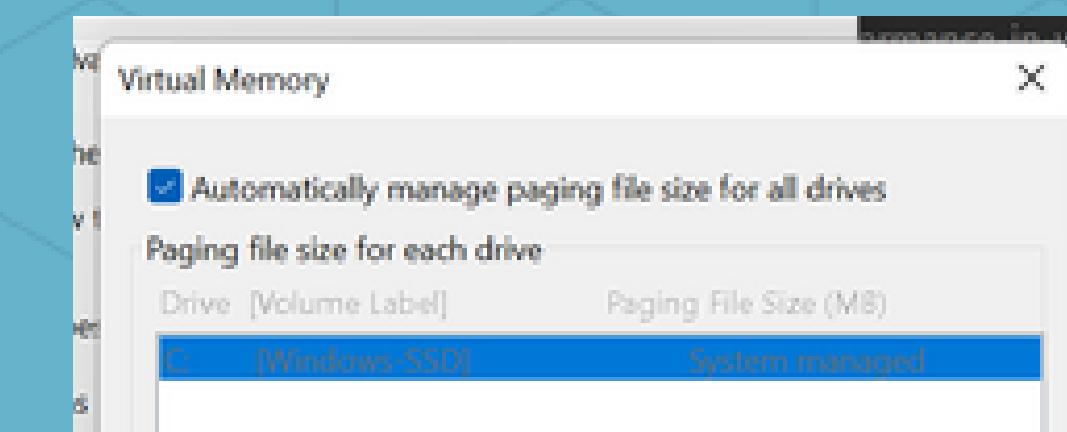


4 in performance options click
on Advanced then Change



The paging file is an area on your hard disk that Windows uses like memory. The paging file extends the RAM's capacity.

5) Check box of
Automatically manage
paging file size for all drives



6) Restart PC



5. Check for low disk space and Free up space

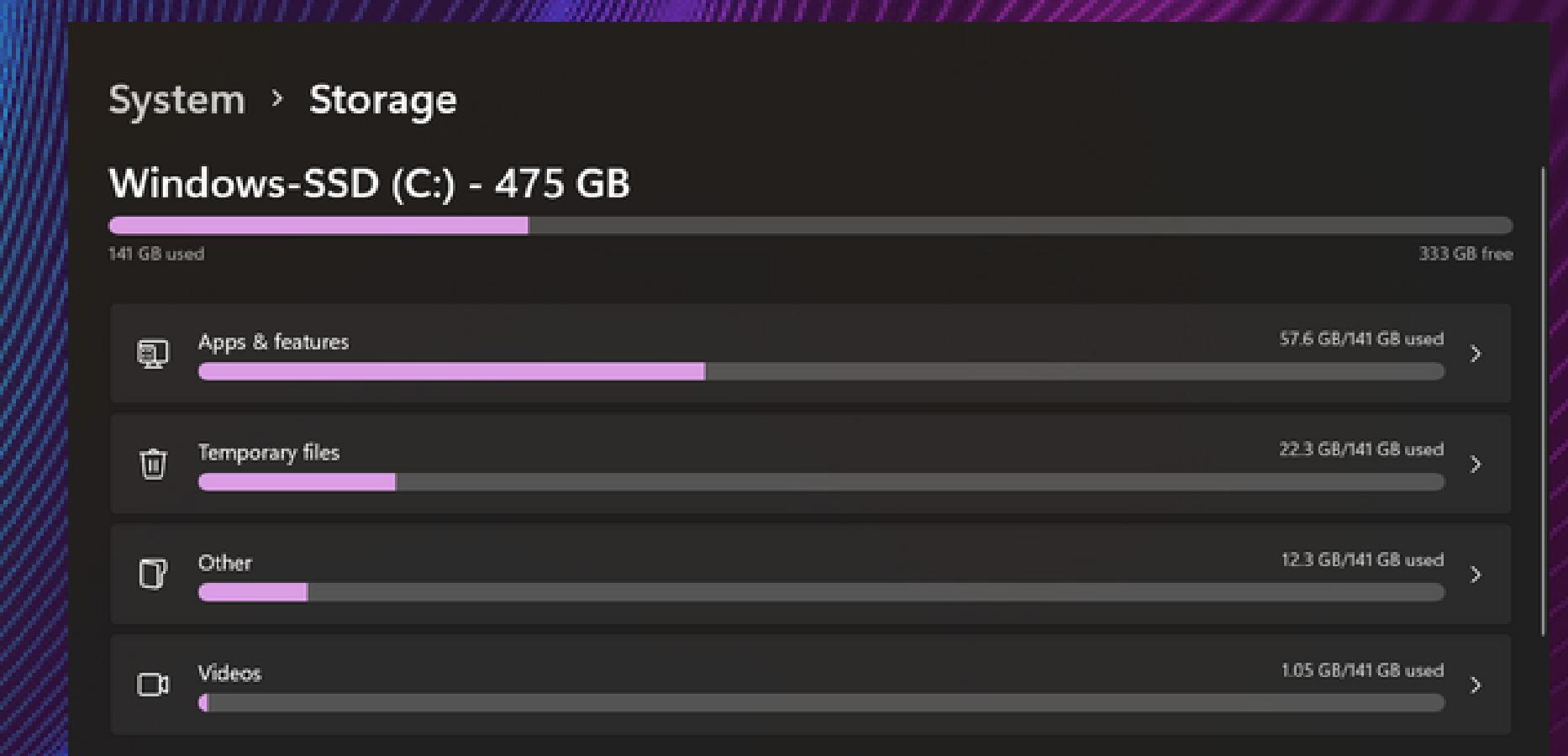
You may improve performance if you free some disk space on your PC.

To check your storage :

Click on Window button 

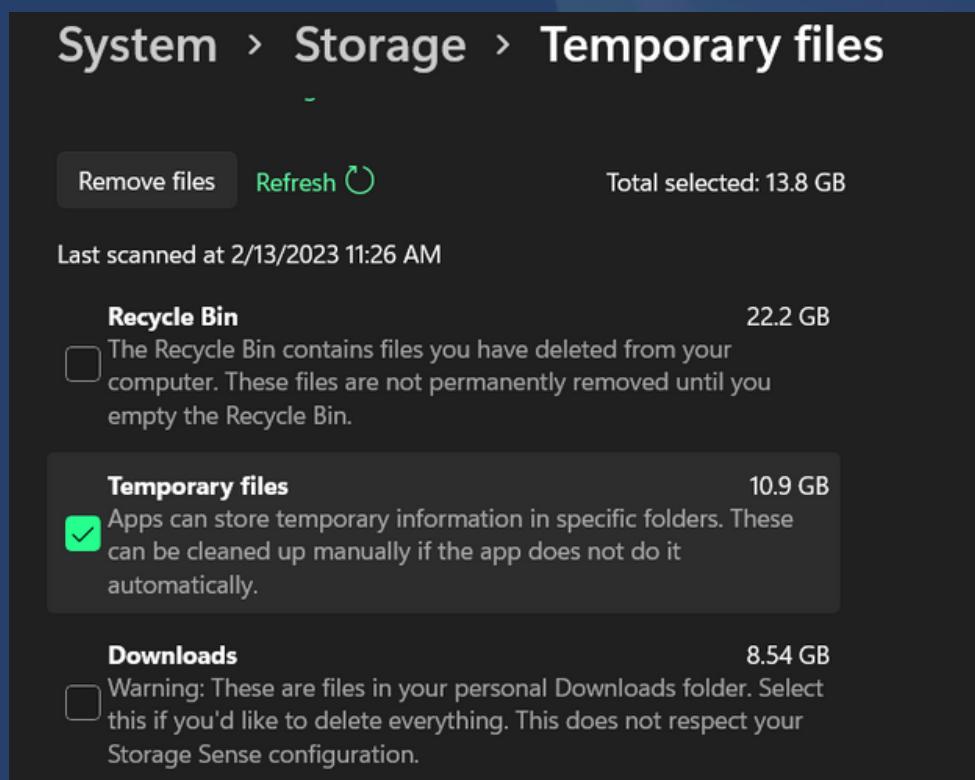
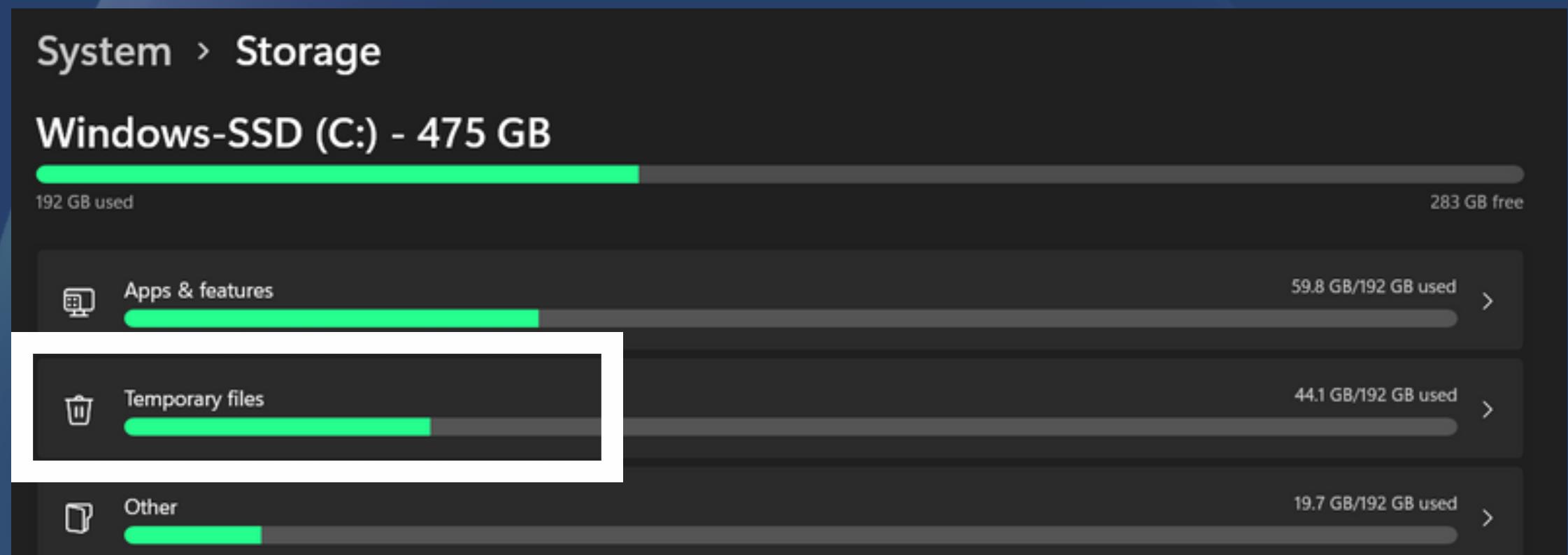
then Setting  >

System > Storage .

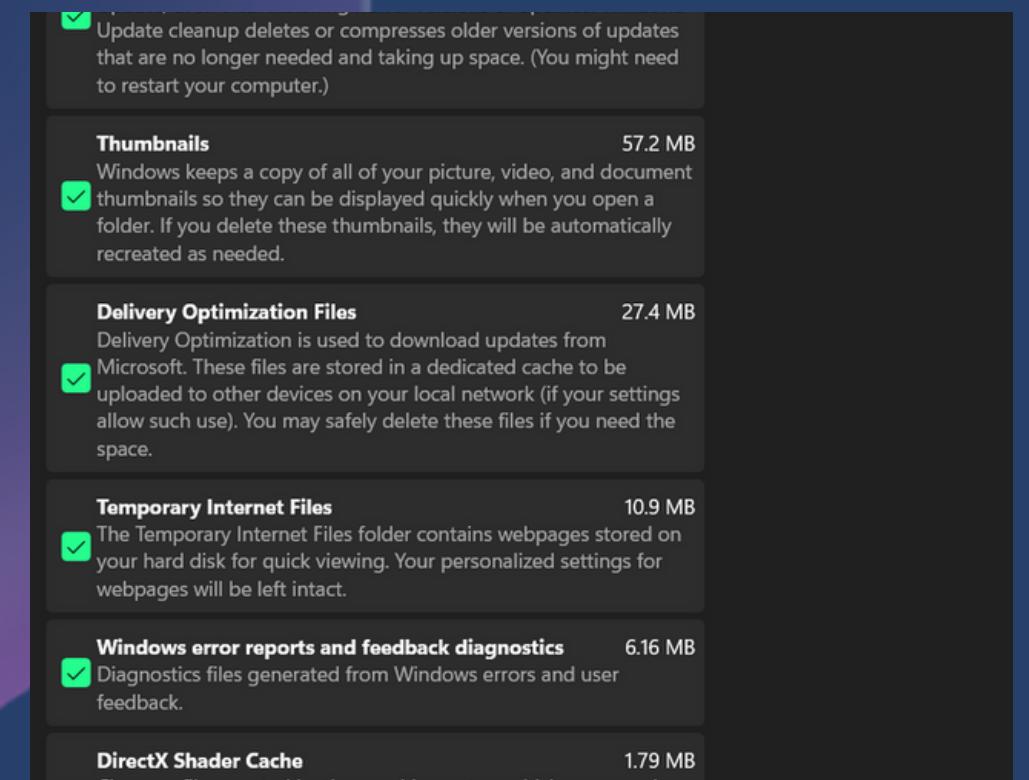


If your PC is low on space, you need to make it free up space.

To delete temporary files with Storage Sense:



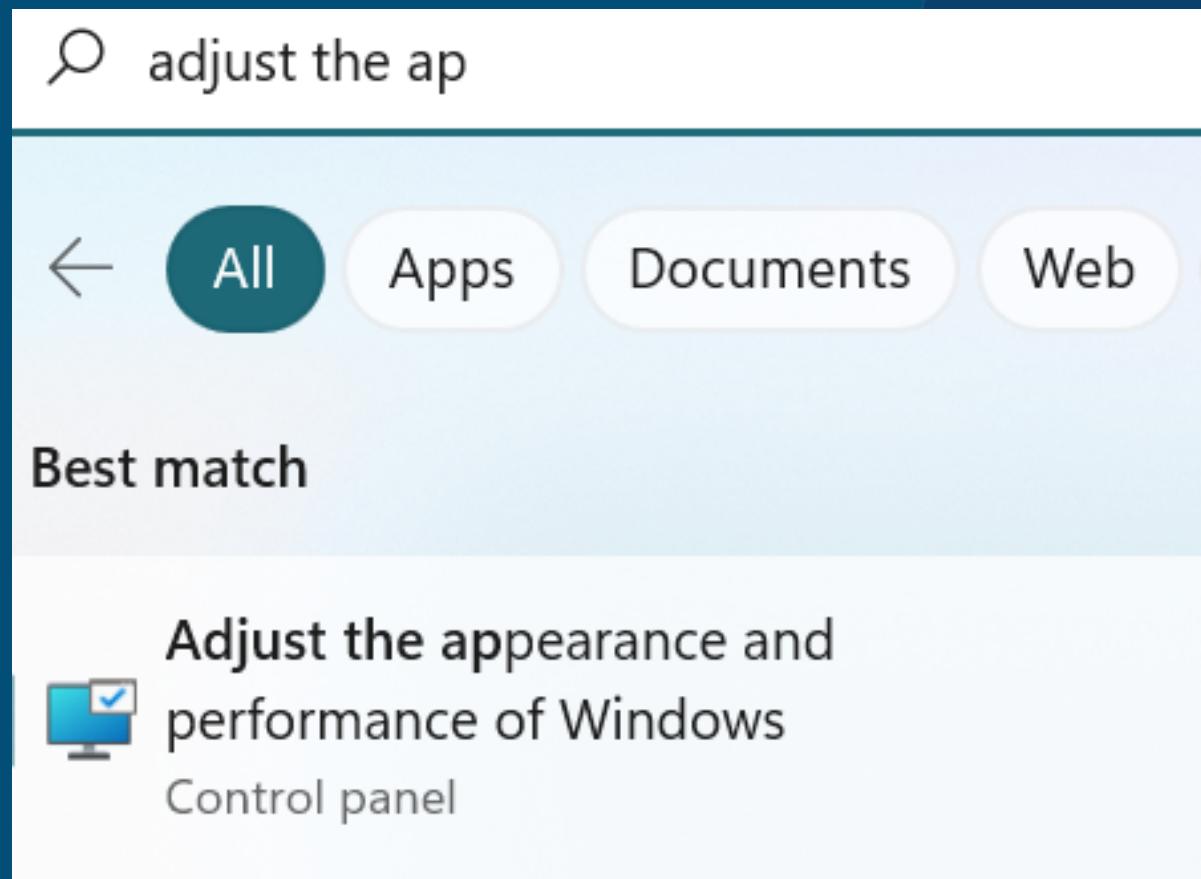
You can use Storage Sense to delete unnecessary or temporary files from your device, which can also free up space.



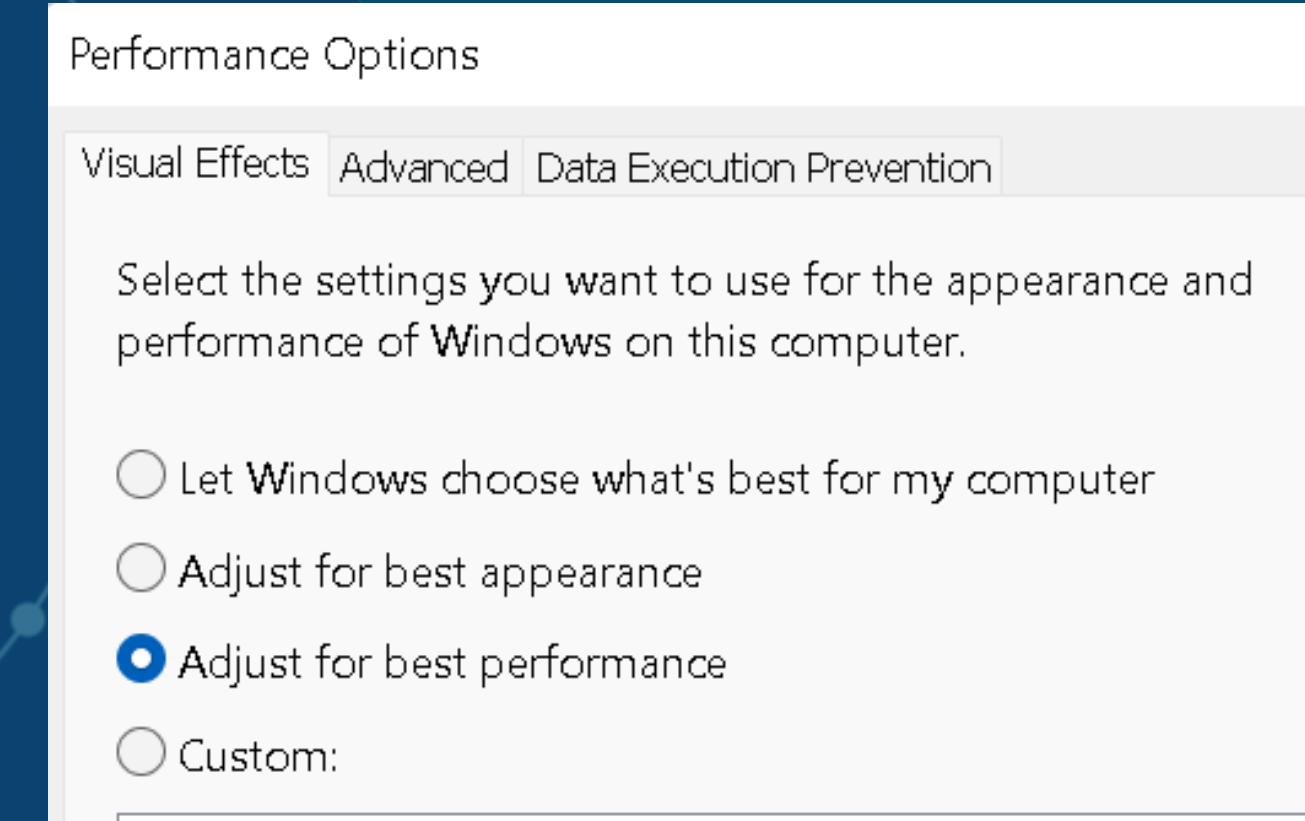
6 . Adjust the appearance and performance of windows

To adjust the visual effects in Windows :

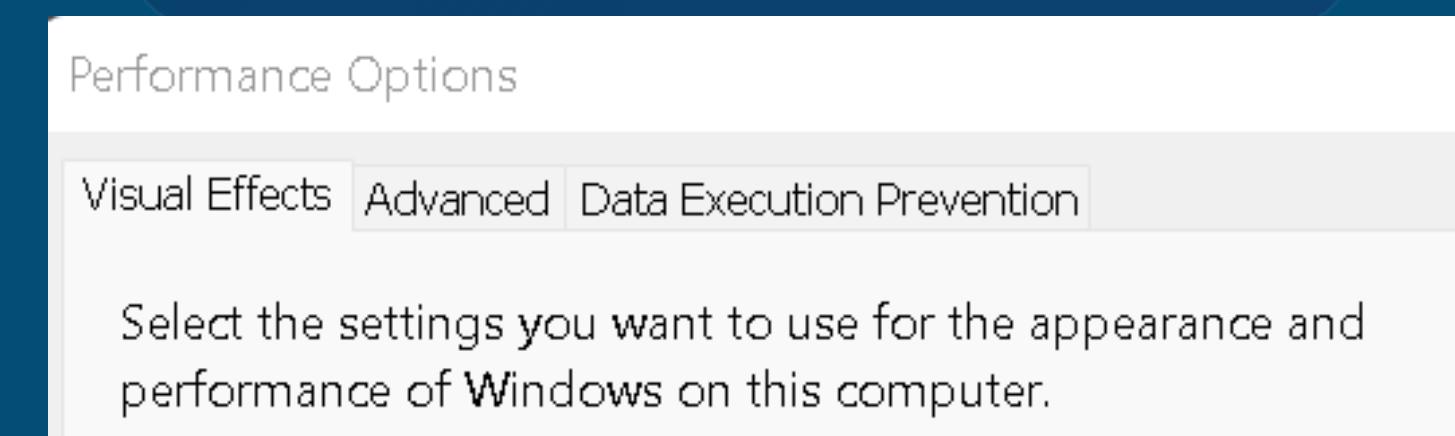
1. Adjust the appearance and performance of Windows



2. Visual Effects



3. Adjust for best performance



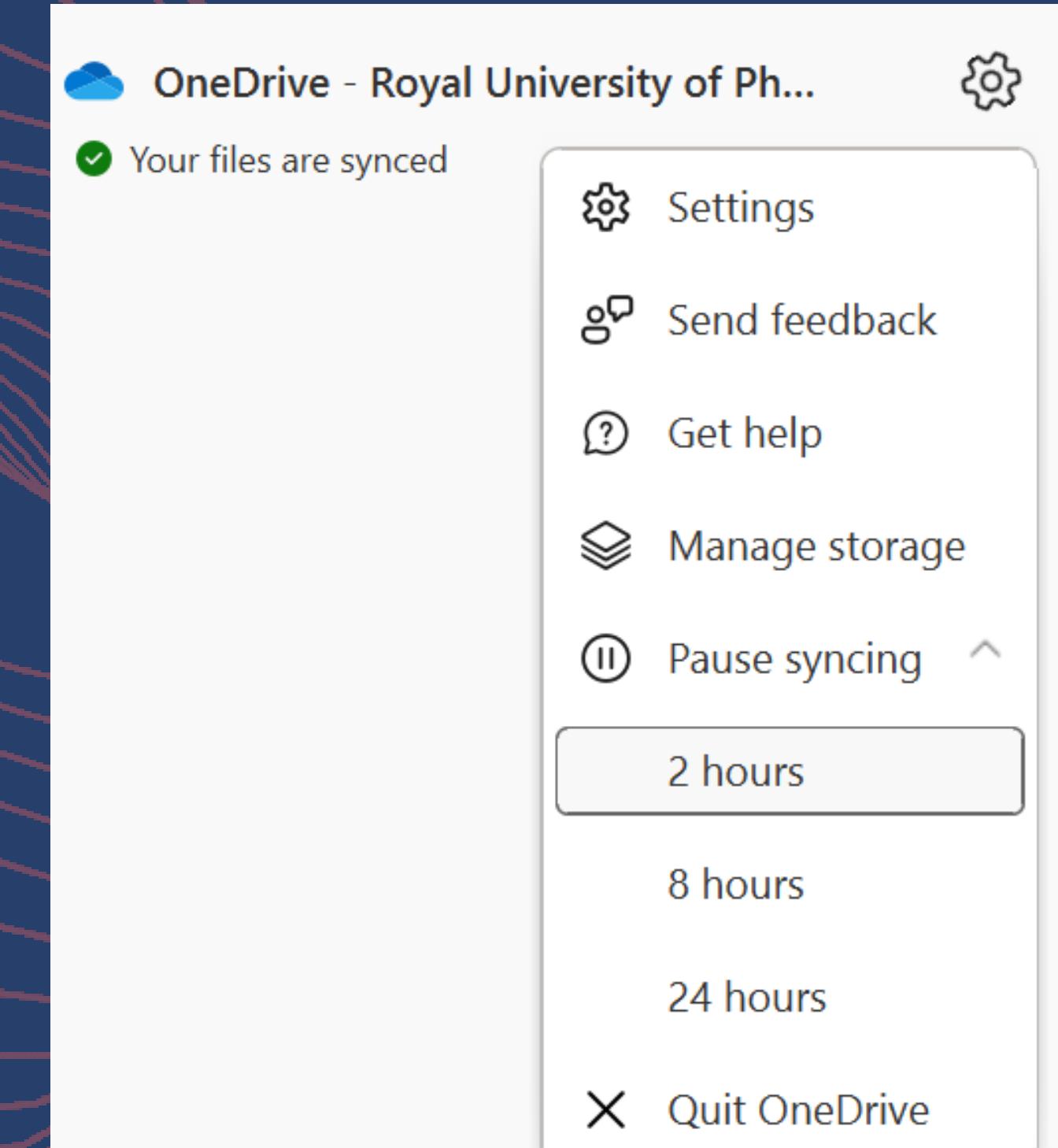
Chean Botum

7. Pause OneDrive Syncing

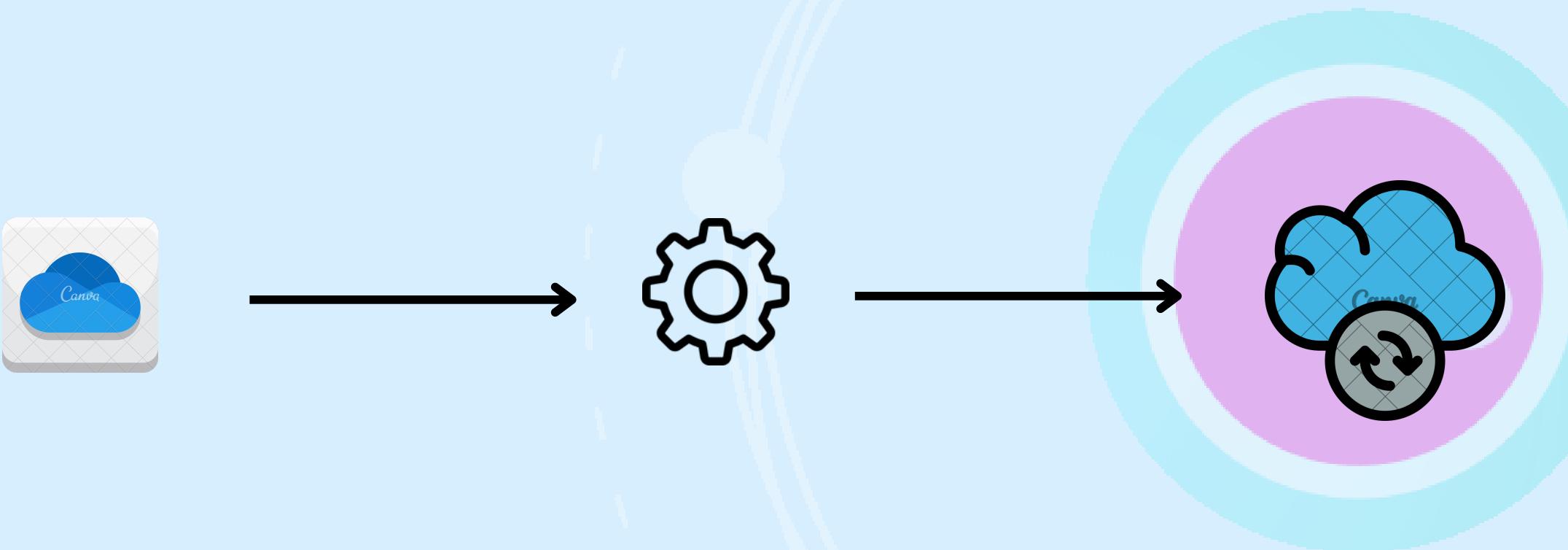
To pause syncing to OneDrive



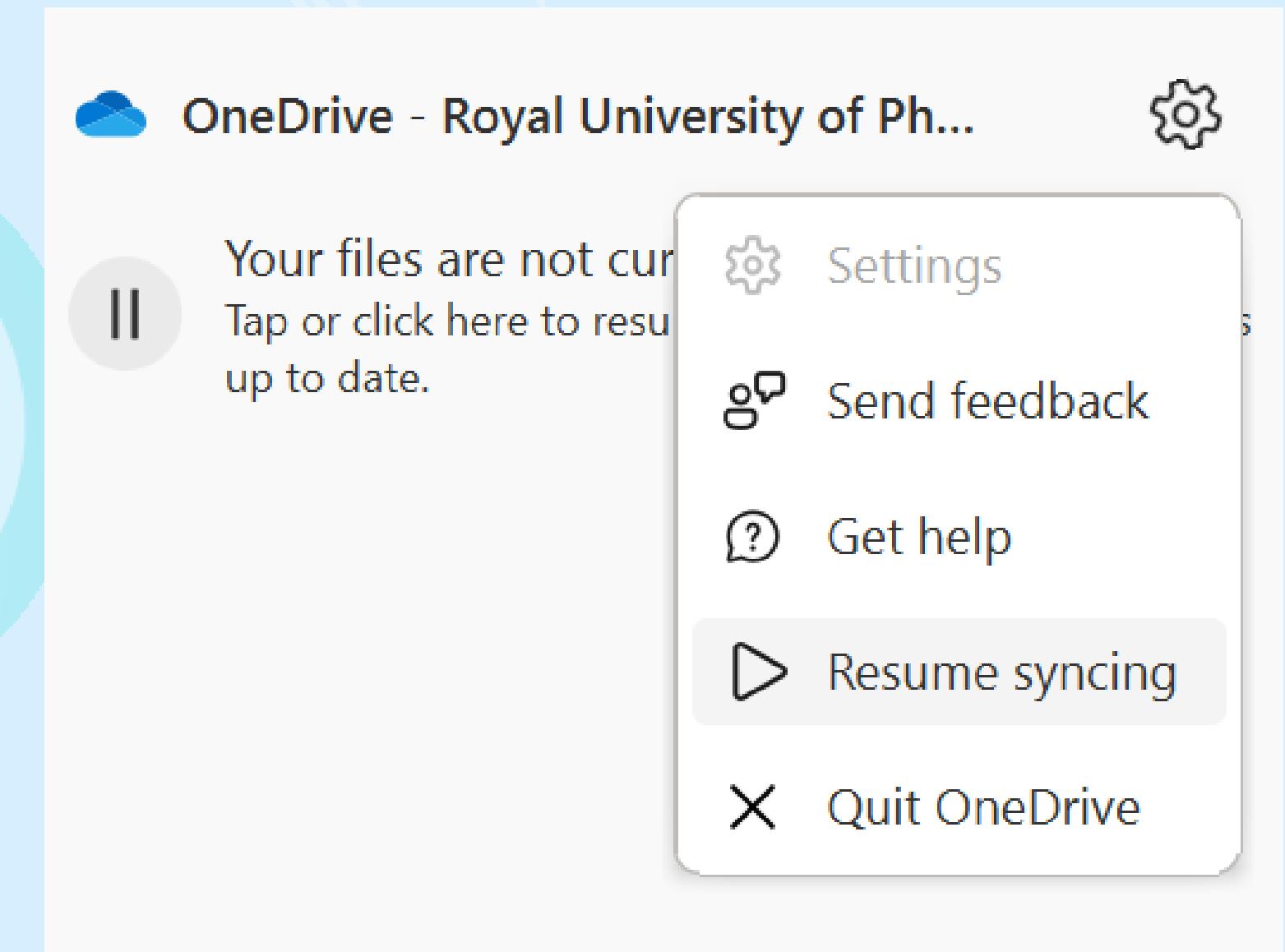
- Restart your PC and see if your performance issues have improved with syncing paused.



To pause syncing to OneDrive



You can also visit Fix OneDrive sync problems to check for any sync issues.



8. Disable Unnecessary Startup Programs

- To stop a program from starting automatically



Start



Settings



Apps



Startup

In the Startup Apps area, find the program you want to stop from starting automatically and set it to Off.

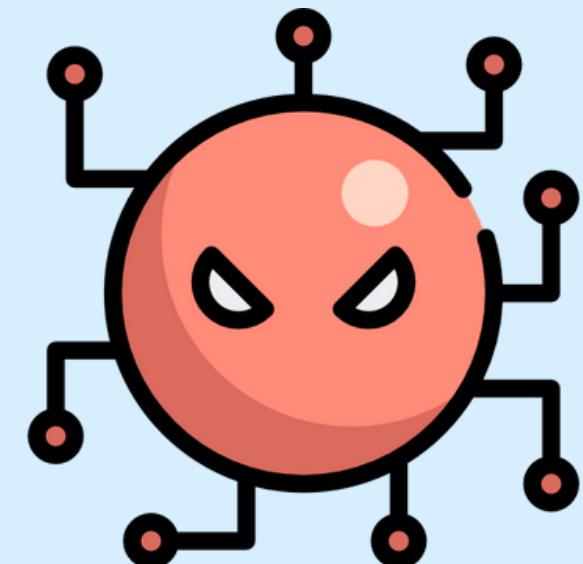


To scan for viruses using Windows Security



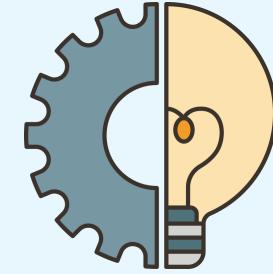
- You can use other types of scan such as full scan, malware scan manually (Windows Defender) or use Anti-virus software....

It can improve computer performance by removing threats, preventing future infections, improving stability, and increasing speed.

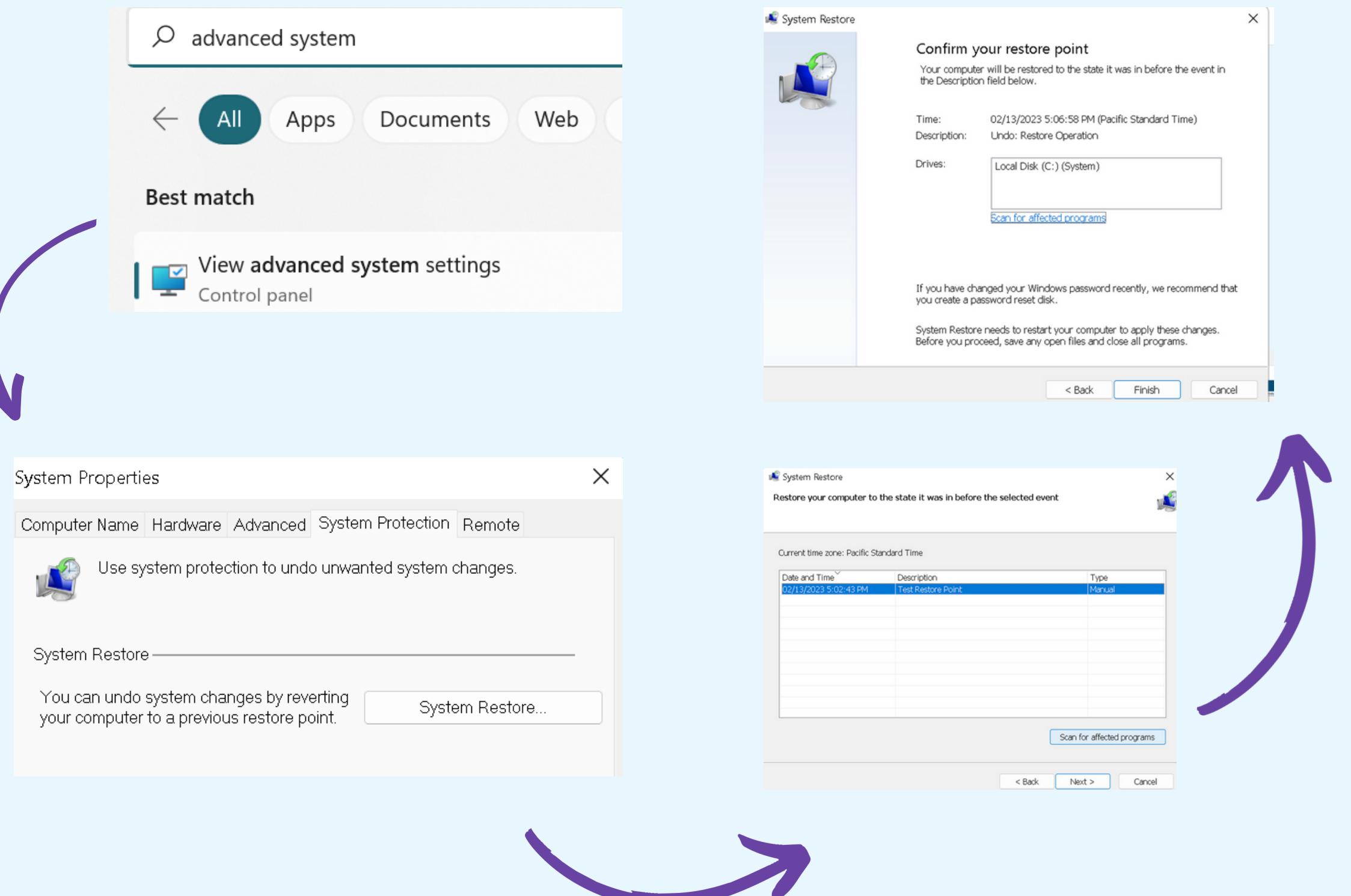


9. CHECK FOR AND REMOVE VIRUSES AND MALWARE

10. RESTORE YOUR PC FROM A SYSTEM RESTORE POINT



To restore your PC from a restore point



- If you don't see any restore points, it might be because system protection isn't turned on .

- **Turn on system protection:** Create a restore point > System protection > Configure > Turn on system protection > OK.

- **It can improve computer performance by rolling back your system to a previous state where it was running smoothly.**

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Pros and Cons for Improve PC Performance

Pros

- Reduce overheating computer
- The last version make faster
- Free up space
- Expanding your computer's Ram can run better
- Easy to make your PC run faster
- Reduce data usage
- Increased battery life
- Improve performance

Cons

- Some cases even better
- Take time
- Spend money
- Use the old version of app is better
- Lost files that important
- Reduced visual quality
- Cost

HOW TO SECURE YOUR PC PERFORMANCE

1. Making sure to enable firewall in your laptop or PC

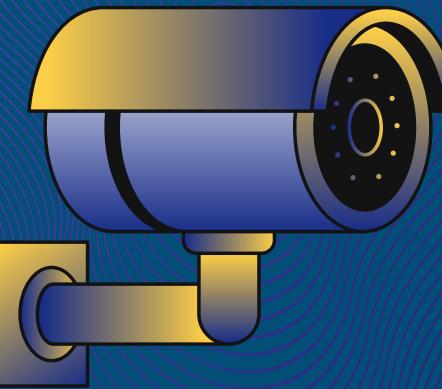
(Most current computers come with a firewall already installed.)



A screenshot of the Windows Control Panel. On the left, there is a list of icons and their corresponding names: Color Management, Devices and Printers, Indexing Options, Mail (Microsoft Outlook), Programs and Features, Security and Maintenance, System, and Windows Mobility Center. A red arrow points from the 'Security and Maintenance' icon towards the main content area.

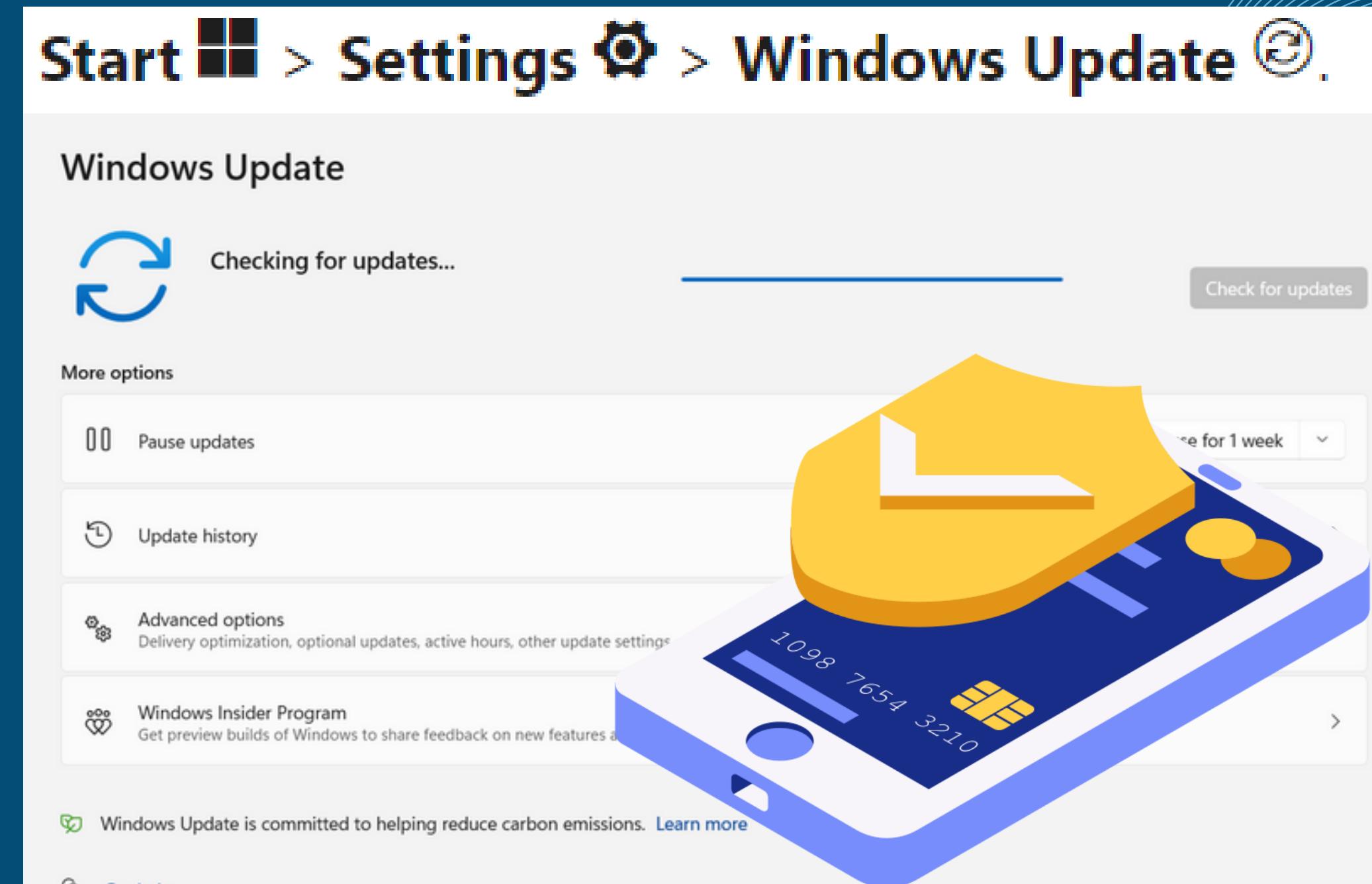
A screenshot of the Windows Security settings. It includes sections for Network firewall (with a 'View in Windows Security' link), Virus protection (with a 'View in Windows Security' link), Internet security settings (noted as recommended levels), User Account Control (with a 'Change settings' link), and a link to 'How do I know what security settings are right for my computer?'. A red arrow points from the 'View in Windows Security' link under 'Network firewall' towards the detailed network protection section on the right.

A screenshot of network protection settings. It shows three network types: Domain network, Private network, and Public network (active). Each network type has a status indicator: 'Firewall is on.' for Domain and Private networks, and 'Firewall is on.' for the active Public network. Red arrows point from each network type back to the corresponding 'Domain network', 'Private network', and 'Public network (active)' sections in the middle column.



2. Follow the manual update on your pc requirement

- Strengthen the security system and correct the flaws in the current version.
- Reduces the danger of virus infection by resolving issues and introducing new features.



3. Shut it down



Problem : Being constantly connected to your computer makes it more visible and vulnerable to hackers.

Solution : Shutting down your computer destroys any connections that a hacker may have created with your network and disrupts any potential harm.

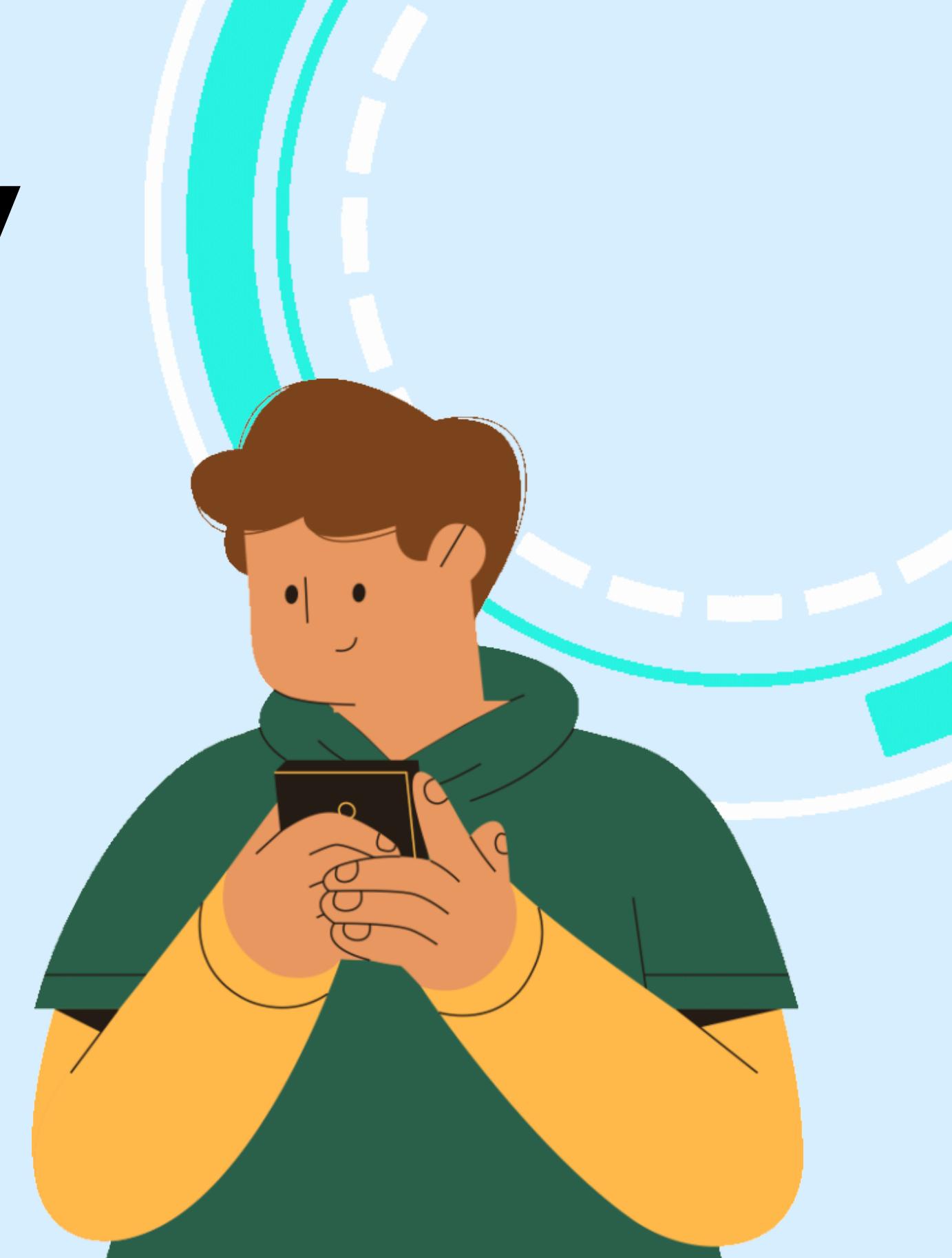
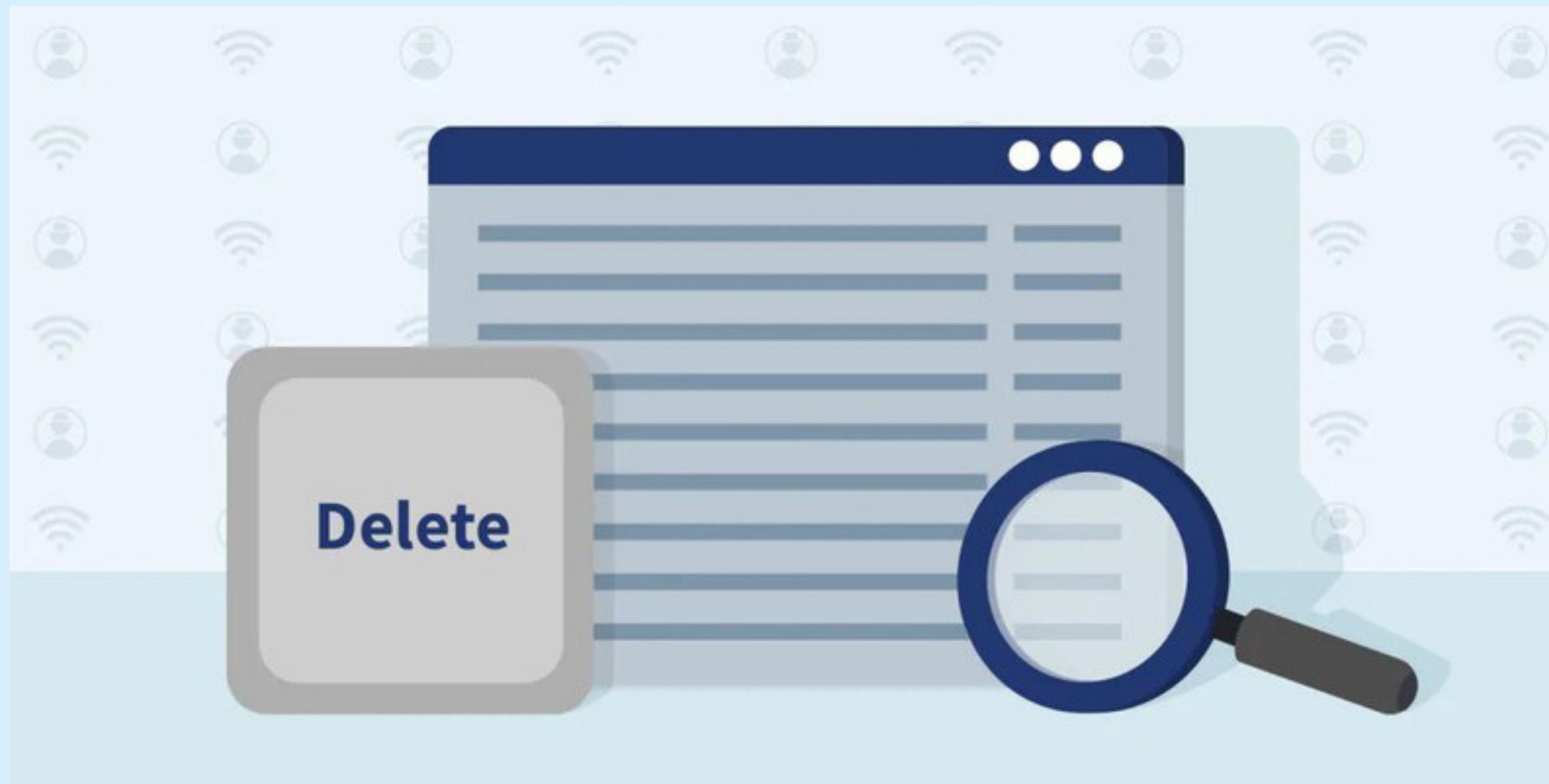
4. Switch off autocomplete



"This is a useful tool not only for you, but also for your hackers."

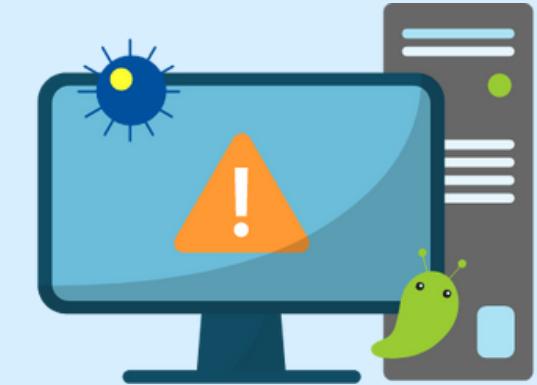
5. Clear your browsing history

Clearing your browsing history gives hackers as little information as possible to work with.



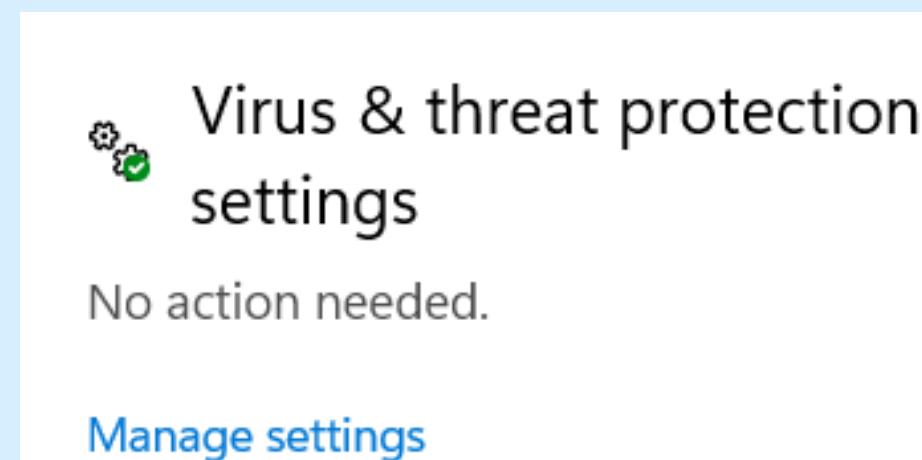
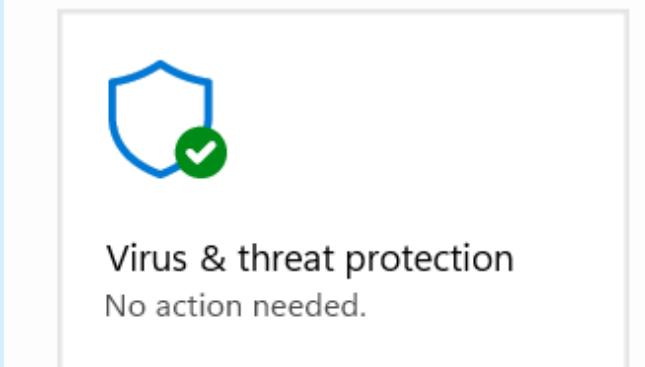


6 .Turn on the real-time protection or use third-party application to protect your pc from infection



Security at a glance

See what's happening with the security and take any actions needed.



Real-time protection

Locates and stops malware from installing or running on your device. You can turn off this setting for a short time before it turns back on automatically.



Using Anti-virus software



TOP 3 Anti-virus software



Nam Kimly

7. Create a strong password



Password provides the first line against unauthorized access to your computer as well as your personal information.

The stronger password, the more protected your computer from hacker and malicious software

Tips

- ▶ Putting a password at least 8 characters long.
- ▶ Should contains a symbol or special character.
- ▶ If something necessary, you should change it regularly.

Shouldn't do

- ▶ Putting personal information in password
- ▶ Do not sign in to random devices
- ▶ Check whether you should sign in in any application or not .

8. Beware of the suspicious things through the internet

! Don't click any random or spam link that you see through the internet



Phishing

! Don't download random software that don't have a specific publisher.



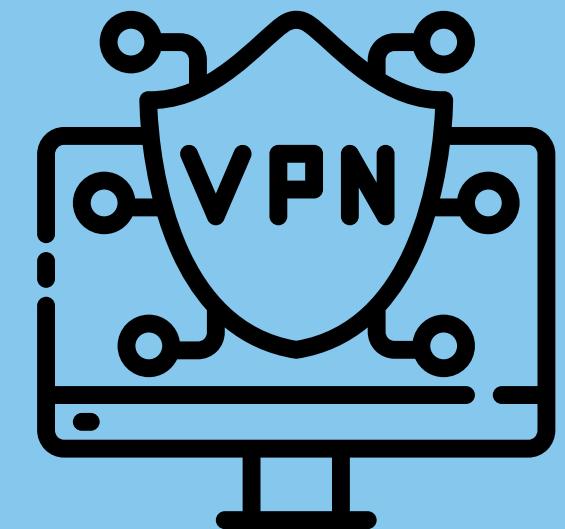
! Beware of Smishing
(SMS phishing)



9. Browse any website safely



- Stop visiting website without HTTPS
- Choose strict privacy and security setting on your browser
- Blocking ads for enhanced privacy
- Clear cookie and web browser cache
- Using VPN



10. Consider of using pirated material



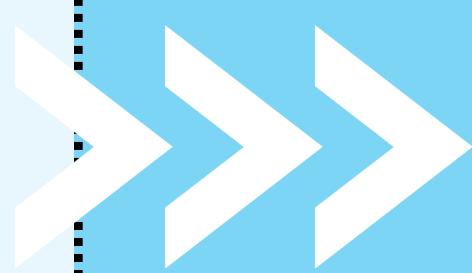
- Downloading a cracking software will be dangerous and cause harm to the computer because they may contain malware.
- Downloading any video or music from untrusted source may also be a risk for your computer



Using secure network

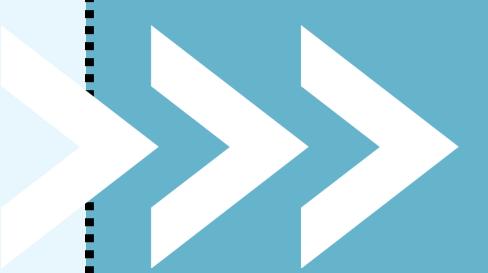
- Connecting to insecure network will create a possibility of hacker accesses to control your online activity and even more dangerous is that they can manipulate bank account , inject malware and steal your social account

Advantage



1

**Help improves your
awareness**



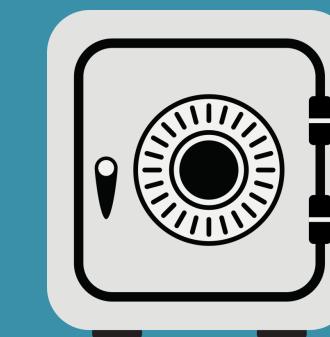
2

**Prevent your pc from
CyberAttack**

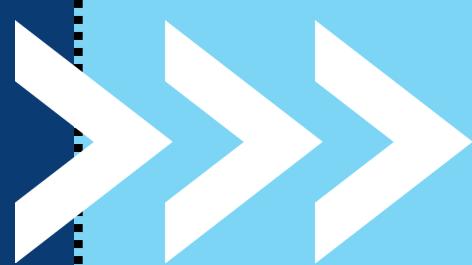


3

**Keep your pc
in a safe place**

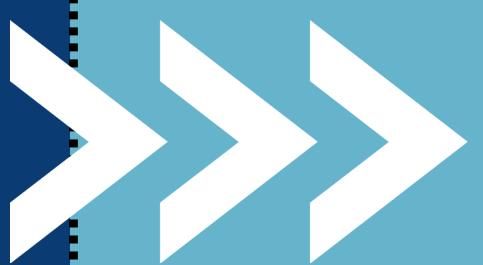


Disadvantage



1

**Spending big amount
on anti-virus**



**Pretty hard to
understand
The concept**

2



**Need to do more
Research**

3

CONCLUSION

Improve PC performance:

- 10 ways to improve performance
- Advantages & Disadvantages

Improve PC Security:

- 10 ways to improve security
- Advantages & Disadvantages

Reference:

- <https://support.microsoft.com/en-us/windows/keep-your-computer-secure-at-home-c348f24f-a4f0-de5d-9e4a-e0fc156ab221>
- <https://support.microsoft.com/en-us/windows/tips-to-improve-pc-performance-in-windows-b3b3ef5b-5953-fb6a-2528-4bbcd82fba96>
- <https://support.microsoft.com/en-us/windows/tips-to-improve-pc-performance-in-windows-b3b3ef5b-5953-fb6a-2528-4bbcd82fba96>