To keep your system **healthy and problem free**

- Do regular backups of your important files
- Do not execute or install files/applications from unknown sources
- Do not install applications that you may not need
- Defragment the hard disk regularly
- Do a regular scan for any virus/spyware
- Apply the recommended security patches/updates

For more details, please read on…

**Disk Cleanup**

The Disk Cleanup program will help free up space by deleting the temporary files from your computer. These files are left over from software installation or when browsing web pages.

**How to do Disk Cleanup?**

1. Click on Start > All Programs > Accessories > System Tools > Disk Cleanup
2. Select the drive which you want to drive up

![Disk Cleanup: Drive Selection](image)

3. Select the items you want to clean up and click OK.

![Disk Cleanup for System (C): Files to delete](image)
**Disk Defragmenter**

Files and directories get fragmented with constant modification/deletion and the hard disk will take a longer time to retrieve them. Disk defragmenter can arrange the files together so that the access time is faster.

Depending on your hard disk space, defragmentation may take some time to complete - try running it when you are not using your system, for example, when you are out for lunch. When defragmentation is running, you can still choose to pause or stop it.

**How to run Disk Defragmenter**

1. Click on Start > All Programs > Accessories > System Tools > Disk Defragmenter
2. Select the disk drive and click “Analyze disk” first.
3. Once it analyzed that your drive needs defragmentation, click on “Defragment disk”.

**Tip:** run Defragmenter after you have cleaned up your disk, especially when large amount of data has been transferred or deleted from the disk.
Temporary Internet Files

Internet Explorer will cache the web pages which you visited, with temporary files, so as to load the pages faster if you revisit them next time. Over time, these files will grow in size, making your internet explorer less efficient.

How to clear Internet Explorer's temporary internet files

1. Launch Internet explorer.
2. Click on Tools > Internet Options
3. Click on Delete…
4. Tick on “Temporary Internet Files” and click “Delete”.

![Internet Options](Image)

![Delete Browsing History](Image)
Remove Unused Programs

Each program which you install will take up resources (e.g. memory/hard disk space) on your computer. Over time, this might cause your system to run slower.

For programs that you do not need often, you might consider uninstalling them.

While surfing the internet sites, you might also have inadvertently install software that you do not need or know of.

How to remove unknown or unused programs

1. Click Start > Control Panel > Programs > Uninstall a program

2. Look through the list of programs and uninstall those that you do not need.

Tip: Exercise caution and do not install applications from unknown sources or senders. Such applications might contain virus or make your system unstable, especially pop-up applications which are often spyware programs.
Anti-Virus Software

Install an Anti-virus Software to protect your system. Symptoms like program freezing for no apparent reason, slow performance and unusual system behavior, could be results of a virus infection.

1. You should only install one anti-virus software on your computer. Multiple antivirus software might conflict with one another and slow your system down.


3. Check your anti-virus help for steps on how to schedule a weekly scan for the computer.

Tip:

- Ensure your antivirus is updated. Check at least once a week to ensure the pattern signature is the current one.

- Ensure you have a strong password for your local administrator account as some viruses and hackers break in to systems with weak passwords. Refer: [https://inetapps.nus.edu.sg/comcen/security/protect-privacy/strongpassword.html](https://inetapps.nus.edu.sg/comcen/security/protect-privacy/strongpassword.html)

Anti-Spyware Software

Check for Spywares. Spywares are programs that might interfere with your browsers – e.g. pop-ups that redirect you to unfamiliar websites, new toolbars in your browser, slower internet access, browsing issues, etc.

To scan and clean spywares, you can run popular tools like Ad-Aware and Malwarebytes - these are freeware available for downloads but note that they usually come with limited or no product support.

For more information, refer:
- [http://www.lavasoft.com/](http://www.lavasoft.com/)
- [http://www.malwarebytes.org/](http://www.malwarebytes.org/)

Security Patches

Install the recommended security patches to protect your system. Microsoft regularly releases operating system (for Windows) and application patches (for Office) that fixes program bugs and security vulnerabilities (possible attacks from hackers, viruses, etc).

Follow their guidelines and recommendations to install the patches via Windows Update, to ensure your system is properly protected: click the Start button, click All Programs, and then click Windows Update.

For more information, refer: