## File Management Utility

### Scenario

Your computer is filling up with documents, pictures, and downloads. You need to find, move, and organise your files.

### Key Learning Points

* Helps organise, copy, move, and delete files.
* Makes data easier to locate and manage.
* Examples: File Explorer (Windows), Finder (MacOS).

## Defragmentation Utility

### Scenario

Your computer has been running slowly because files are scattered across the hard disk.

### Key Learning Points

* Rearranges fragmented data so files are stored in contiguous sections.
* Improves access speed on mechanical hard drives.
* Not needed for SSDs but still useful historically.

## Compression Utility

### Scenario

You want to email a large folder of photos to a friend, but the file is too big to send as it is.

### Key Learning Points

* Reduces file size by compressing data.
* Can be used for archiving multiple files together.
* Examples: WinZip, WinRAR, 7-Zip.

## Package Management Utility

### Scenario

You are installing new software, and the system automatically checks for dependencies and updates.

### Key Learning Points

* Manages installation, updates, and removal of software.
* Ensures correct versions and dependencies are installed.
* Examples: apt (Linux), Chocolatey (Windows).

## Protection Utility

### Scenario

Your PC is connected to the internet and you need to guard against viruses and malware.

### Key Learning Points

* Provides real-time protection against malicious software.
* Includes antivirus, firewalls, and intrusion detection tools.
* Examples: Windows Defender, Norton, McAfee.

## Backup Utility

### Scenario

You are worried about losing coursework if your laptop breaks or files are deleted accidentally.

### Key Learning Points

* Creates copies of important files for recovery.
* Can be automated or done manually.
* Examples: Windows Backup, Time Machine (MacOS).