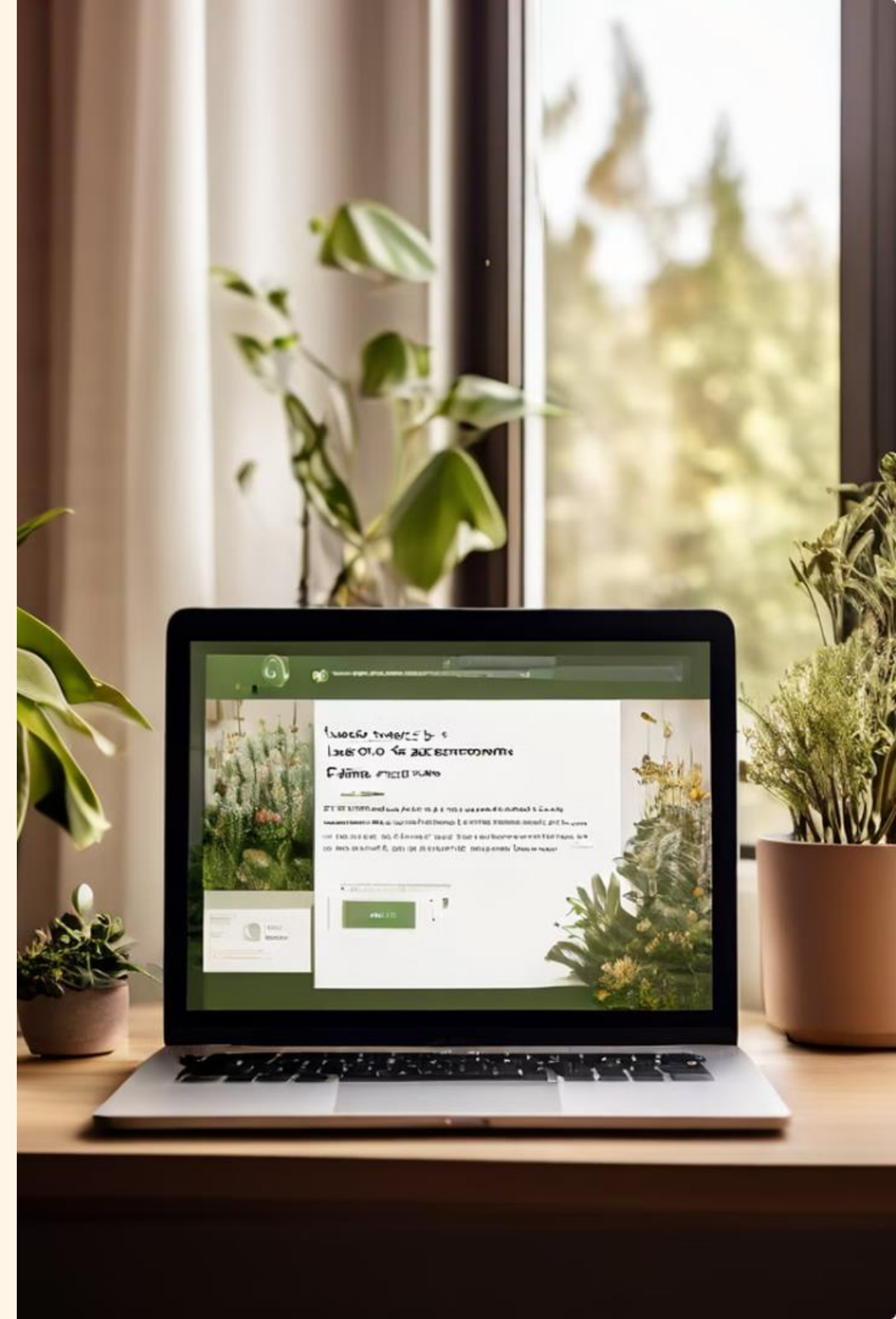


CPT 122 – Introduction to computer Hardware 2

Module 3, Unit 3: Software Installation

This unit delves into the procedures for the installation of computer programs and software. Understanding software components is crucial as they enable the hardware to perform tasks and provide a platform for users to interact with the computer.



Installation of System Software

1

Operating System (OS) Installation

The OS manages hardware resources, provides a user interface, and acts as a platform for applications. This section will cover the steps for installing an OS on a newly assembled computer.

2

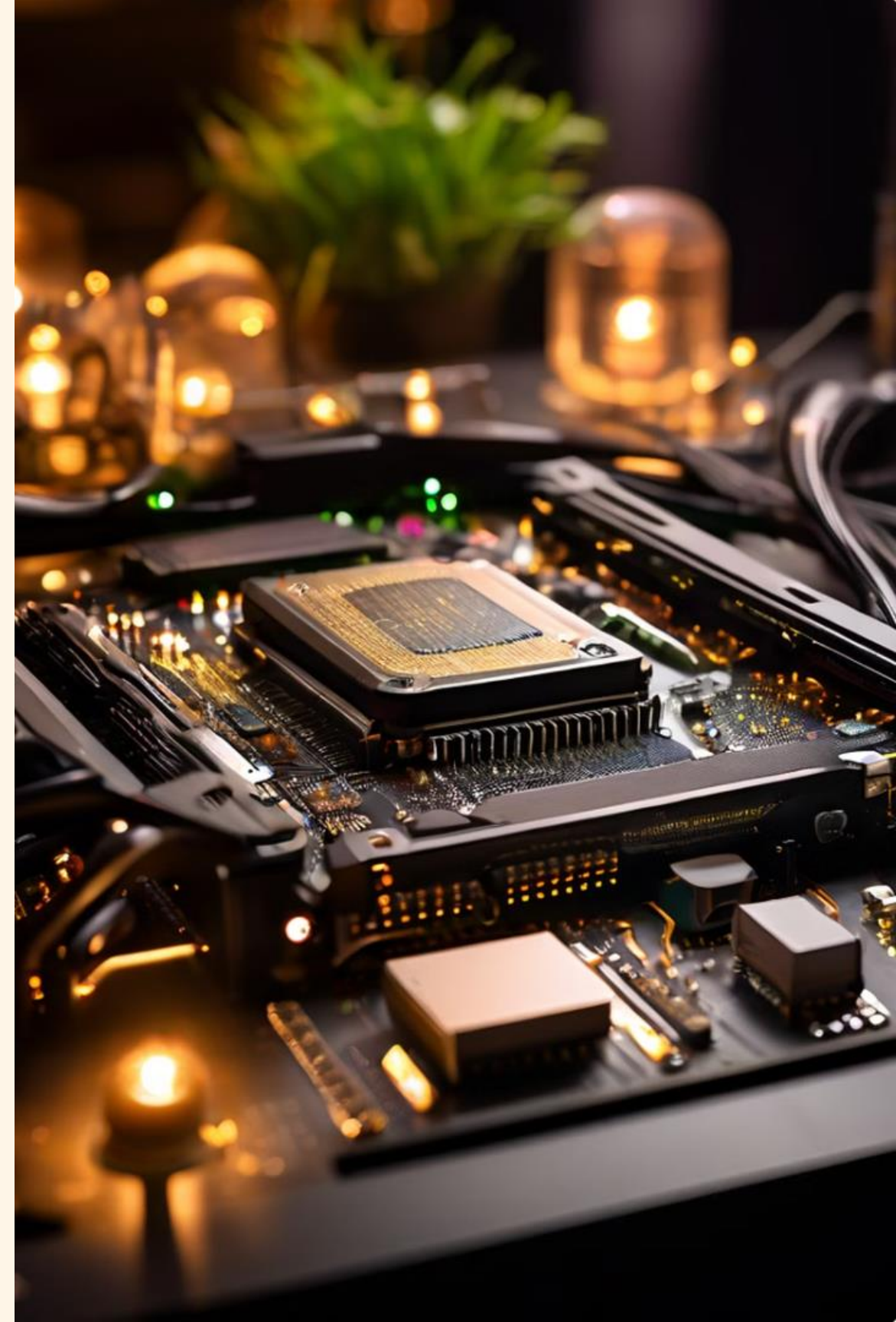
Drivers Installation

Device drivers allow the OS to communicate with hardware components such as printers, graphics cards, and network adapters. This section will cover the steps for installing drivers on a newly installed OS.

3

Utility Software Installation

Utility software performs maintenance tasks such as disk cleanup, antivirus scanning, and data backup. This section will cover the steps for installing utility software on a computer.



Operating System (OS) Installation

1

Prepare Installation Media

Obtain a bootable installation media such as a USB flash drive or a DVD containing the operating system you want to install. Make sure the installation media is formatted correctly and has the necessary files to install the operating system.

2

Configure BIOS Settings

Power on the computer and enter the BIOS. Ensure the boot order is set to boot from the installation media (USB or DVD drive) first. Save the BIOS settings and exit to restart the computer.

3

Start the Installation Process

Insert the installation media into the appropriate drive (USB port or optical drive). Restart the computer to boot from the installation media.

4

Install the Operating System

Follow the on-screen prompts to start the installation process. Select the language, time zone, and keyboard layout as prompted. Choose the option to install the operating system (e.g., "Install Now" for Windows).

Operating System (OS) Installation Cont.

5

Enter Product Key (If Required)

If prompted, enter the product key for the operating system. This is usually provided with the software or can be purchased separately.

6

Select Installation Type

Choose the type of installation you want (e.g., Custom installation for a fresh installation).

7

Wait for Installation to Complete

The installation process will copy files, install features, and configure settings. This may take some time, so be patient.

8

Set Up User Account and Preferences

Follow the prompts to set up a user account, password, and other preferences. Customise settings such as computer name, colour scheme, and privacy options.

Drivers Installation

Identify the Hardware

Make a list of the hardware components that need drivers. Common devices that require drivers include graphics cards, network adapters, sound cards, and peripherals like printers and scanners.

Check the Manufacturer's Website

Visit the website of the hardware manufacturer to download the latest drivers for your specific hardware model. Make sure to download the correct drivers for your operating system. Download the driver files to your computer.

Installing the Drivers

Automatic Installation: Simply run the installer and follow the onscreen instructions.

Manual Installation: Press Win + X on Windows or Cmd + Space on macOS to open the search bar. Search for "Device Manager" and open it. Locate the hardware device that needs a driver update. Right-click on the device and select "Update driver. Locate the driver files. Follow the on-screen instructions to complete the installation.

Utility Software Installation

Download from Reputable Sources

Downloading from official and reputable sources helps to ensure that you are getting a legitimate and safe program without any harmful malware or viruses.

Check System Requirements

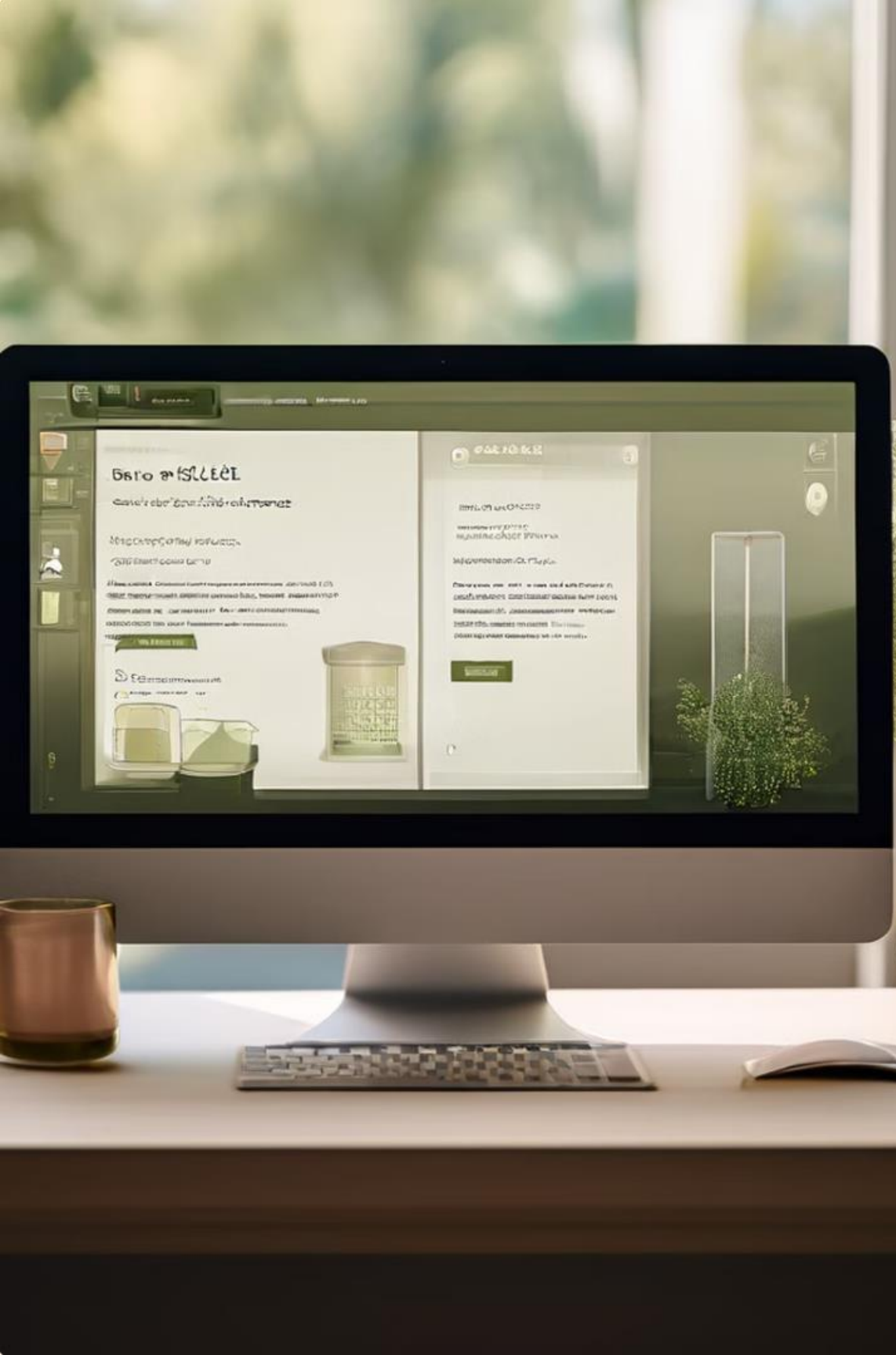
Before installing the utility software, make sure that your computer meets the minimum system requirements specified by the software vendor.

Remove Conflicting Software

If you are installing a utility software that performs similar functions to an existing program on your computer, it is recommended to uninstall or disable the conflicting software to prevent any compatibility issues.

Close Other Programs

Before starting the installation process, close any unnecessary programs or applications running in the background. This helps to free up system resources and minimise the chance of conflicts during the installation.



Installation of Application Software

1

Download the Software

Obtain the installation file for the application software you wish to install. You can download it directly from the software developer's website, a trusted software repository, or from a physical installation disc.

2

Check System Requirements

Ensure that your computer meets the minimum system requirements specified by the software vendor. This includes checking compatibility with your operating system version, processor, RAM, and storage space.

3

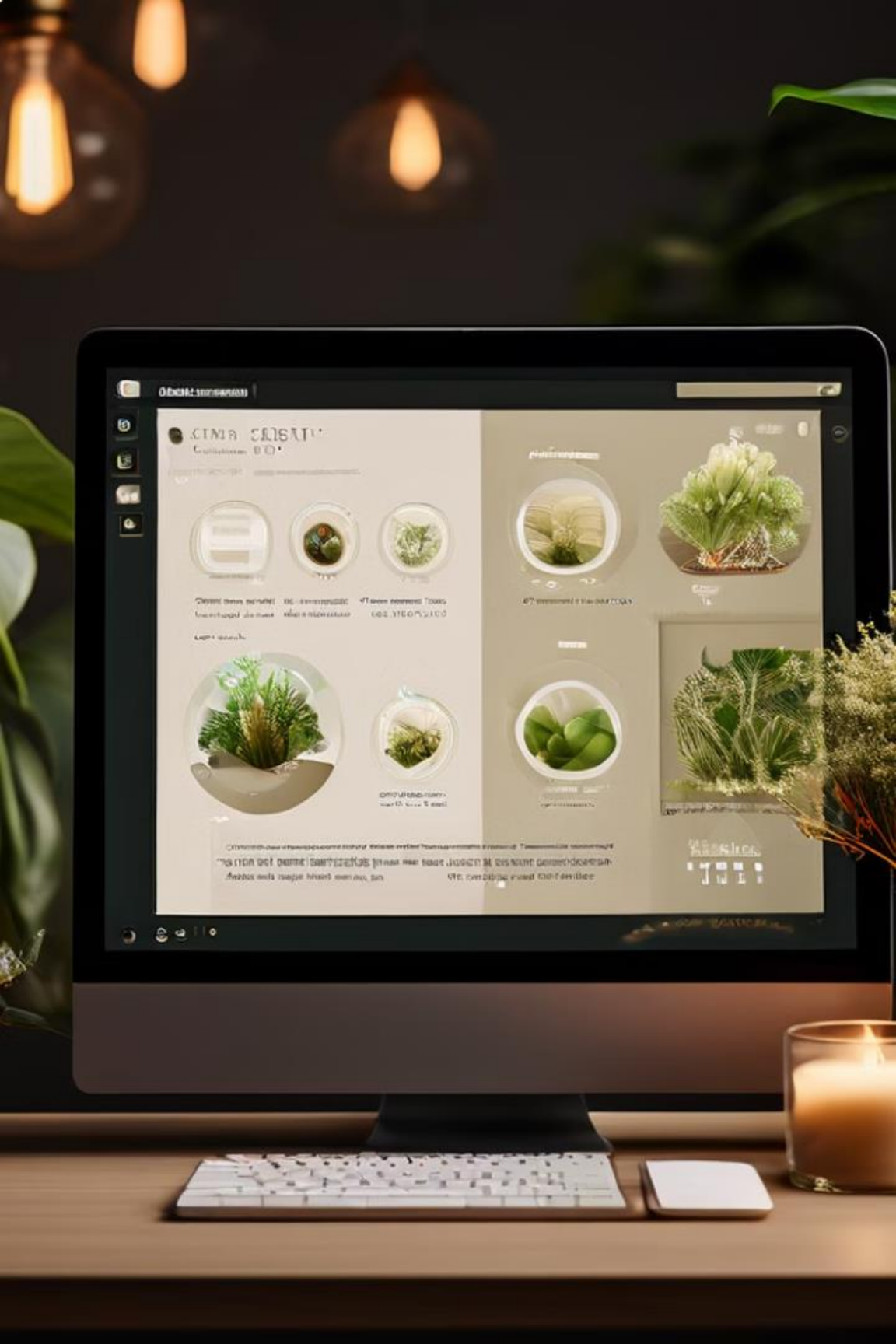
Run the Installation File

Double-click on the downloaded installation file to begin the installation process. Follow the on-screen instructions provided by the installer. Choose installation settings as prompted. Read and accept the software licence agreement or terms and conditions if prompted.

4

Register or Activate the Software

Some application software may require you to register or activate the product using a licence key or account credentials. Follow the instructions provided to complete this step.



Troubleshooting Software

Issue	Solution
Compatibility Errors	Check system requirements, run in compatibility mode, update drivers.
Installation Failures	Run as administrator, disable antivirus, check for conflicting software, use a different installation method.
Conflicts with Other Software	Uninstall or disable conflicting software, install in a different directory, update software.



Conclusion

Installing system software is the first and most critical step in setting up a computer system. The operating system (OS) acts as a bridge between the hardware and the user, providing an interface to interact with the computer and managing resources. Device drivers ensure the OS can communicate effectively with the hardware components, while utility software helps maintain and optimise the system. Application softwares, also known as programs, are softwares designed to perform specific tasks or functions for end-users.

