IT Fundamentals

Unit - Hardware

Lesson 3.6.1 - Software Basics

IT Fundamentals Objectives (FC0-U61)
Objective 3.6 – Compare and contrast general application concepts and users
- Single-platform software
- Cross-platform software
    - Compatibility concerns
- Software installation best practices
    - Reading instructions
    - Reading agreements
    - Advanced Options

Grade Level(s)
8, 9

Cyber Connections
- **Hardware & Software**

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Software Basics

Single vs. Cross Platform Software

The CompTIA IT Fundamentals exam covers more than two dozen application types and three dozen file extensions, but you are not expected to know how to use everything. One of the topics you will need to know starts with understanding what a *platform* is. A platform is the hardware on which an OS runs, whether that be mobile, workstation, or web-based. In this context, mobile refers to that which runs a mobile OS, workstation refers to that which runs a desktop OS, and web-based refers to that which runs through a web browser.

As the name suggests, *single-platform software* is software that meet the requirements for one particular OS. Before smartphones, many applications were single-platform (not even crossing from Windows to Mac). As technology improved (and more people had multiple devices, for example a Windows PC and an Apple iPhone), the need for *cross-platform software* increased. Cross-platform software works well (theoretically) across multiple OSs. For example, Microsoft Word runs on multiple OSs. One concern with cross-platform software is that of compatibility. Editing a word document on Microsoft Office for Mac (unofficially dubbed Macrosoft Office) and then transferring that file to a Windows version of Microsoft Office may have issues.

The Square Peg Goes in the Square Hole

Every OS has a different way of installing, updating, and removing applications. Regardless of OS, reading the installation instructions is important (but who has time for that?). Users should have a clear understanding of software licensing and use agreements. For cloud-based applications, a *service level agreement* (SLA) provides information such as software usage, expected uptime, and performance details.

As a brief summary, Windows applications can be installed via CD/DVD or from downloadable files typically in a .exe or .msi format. Mac applications can also be installed via CD/DVD or from downloadable files typically in a .zip, .pkg, or .dmg format. For many applications, a GUI (graphical user interface) helps navigate users through the installation process. Uninstalling programs may be done through a literal uninstall app that was included when the software was installed, through control panel (on Windows), or by simply "dragging and dropping" the app in the trash (on Mac). For more knowledgeable users, advanced options can be utilized to customize software to the users need/wants.

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