

Spring 2022 courses

DONE Quiz 1: Introduction to the course and to operating systems

This is the first weekly quiz. Time = 5 minutes, 10 points max.

Git is an operating system

FALSE

Git is a version control system/software/program. An OS is a system that interfaces between the computer hardware and applications, and enables you to use the computer at all.

What can you do in GitHub?

TRUE:

- Control software versions using Git
- Submit issues to code repositories
- Discuss with collaborators
- Edit Markdown files

FALSE:

- Take programming courses

GitHub classroom is a platform created by GitHub to teach programming courses, but that's a different application from the standard purpose of GitHub, which is software development support.

What is Emacs?

Which of the statements is true for GNU Emacs?

TRUE:

- Extensible, customizable text editor | Through Emacs Lisp, a Lisp dialect
- Written in C and Lisp | Core is written in C, extensions in Emacs Lisp
- Literate programming IDE | Integrated Development Environment allowing to develop programs in a "literate" way" via the Org-mode package
- Open source software | Distributed under the GNU license

FALSE:

- Operating system | I compared it with an OS because it covers so many OS management tasks, but it is not strictly speaking an OS
- Owned by Google | One of the few things not owned by Google!
- Twenty-five years old | It's older - developed in 1976, first released in 1985.

What is a shell (in computing)?

We've used the term "shell" for a few concepts and applications - identify them.

TRUE:

- Command line interface | Also CLI as opposed to GUI

- Bash (Linux) | One of many shell programs (zsh, csh, sh, etc.)
- Terminal (MacOS) | A synonym for the shell also under Linux
- Command prompt (Windows) | Windows' name for the command line

FALSE:

- Graphical User Interface (GUI) | A shell is a program used on a Command Line Interface (CLI), without graphics (other than ASCII)
- Integrated Development Environment (IDE) | No - though it can be used that way if you know enough shell commands.
- PuTTY (ssh client for Windows) | A program that runs on the shell and uses another shell, the ssh program for remote access

The kernel has complete control of the hardware and is always in memory.

TRUE

The kernel is the part of the OS that is loaded into volatile memory (RAM) first and that runs as long as the computer is "on".

Match computer part and attribute

CPU	Very fast
RAM	Fast
Harddisk	Slow

Which of these views are part of the ARIS model?

TRUE:

- Organizational view | E.g. the organization of the computer: CPU + Memory + Hard disk
- Process view | E.g. the shell program and other applications that are running on the computer
- Data view | E.g. input and output data
- Control view | E.g. the interrupt handler, and the device controller

FALSE:

- Overview | Too general - all aspects of ARIS provide an overview
- Daemon | A special type of process or service (controller program) that runs in the background
- ERP (Enterprise Resource Planning) | A class of information systems - ARIS was originally developed for ERP systems

Which of these are editors?

TRUE:

- nano | General purpose editor under Linux
- vim | General purpose editor under all S
- sed | String manipulation editor under Linux
- Emacs | Powerful editor, all OS

FALSE:

- cat | a viewing program
- dog | an animal

Bring these components into the right order

These concepts relate to the abstract (layered) view of the components of a computer.

1. User
2. Application programs
3. Operating System
4. Computer hardware

Middleware is part of the operating system

FALSE

Middleware is a type of computer software that provides services to software applications beyond those available from the operating system. It can be described as "software glue" between the infrastructure and the user applications.

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Created: 2022-03-17 Thu 15:24

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