Spring 2022 courses

DONE os Quiz 4

Settings

- After the first play, the quiz will be opened for unlimited play
- Let me know if you have any comments or corrections
- There may be more than one answer to a question

What is the purpose of the Pi's GPIO pins
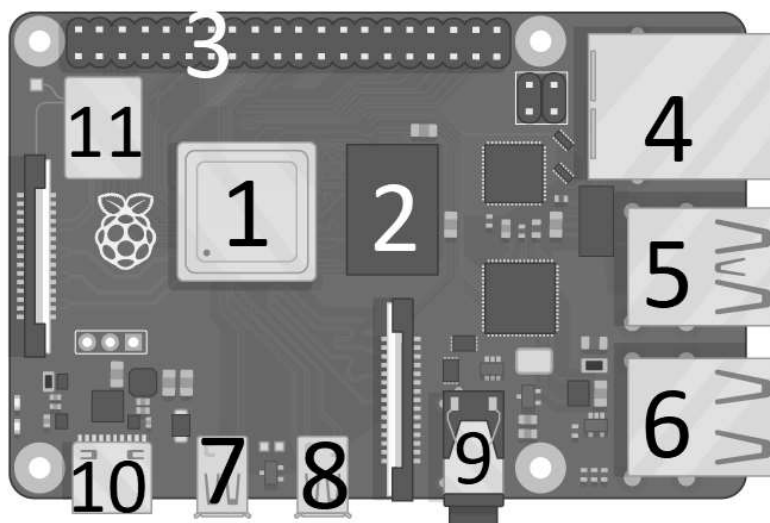
TRUE:

- Control and monitor outside devices

FALSE:

- Micropython programming
- C programming
- Kernel virtualization

Feedback: Feedback: The Linux kernel provides a virtual file system view of the GPIO pins. Micropython is a reduced version of Python that works on microcontrollers (but is unrelated to GPIO). You can use both Python and C to control the pins but that's not their purpose.

Raspberry Pi 4 Architecture

Name the parts of the Raspberry Pi 4 board

1. Processor (SoC - System on a Chip)
2. Memory (RAM)
3. General Purpose Input Output (GPIO) pins
4. Ethernet port
5. USB-3 ports
6. USB-2 ports
7. Micro HDMI display output 1
8. Micro HDMI display output 2
9. Jack 3.5mm output (earphone)
10. USB-C power input
11. Wireless card

Which command do you use to identify your Pi model and processors?

TRUE:

- `cat /proc/cpuinfo`

FALSE:

- `ls /proc/cpuinfo`
- `ls -laH /proc/cpuinfo`
- `cat /proc/cpuinfo/`

Feedback: `ls` is a listing command for files and directories. You need `cat` to view content of files.
`/proc/cpuinfo/` is formatted as a directory and cannot be viewed, only listed.

When was the first Raspberry Pi sold?

TRUE:

- 2012

TRUE:

- 1970
- 1991
- 2006

Feedback: 1970 UNIX, 1991 Linux, 2006 Pi development begins. Also Time Magazine's [lame] Man of the Year of 2006: 'You' (all worldwide web users

The Raspberry Pi comes with pre-loaded retro games

TRUE

Which of these statements about `wget` are true?

TRUE:

- `wget` is a command-line utility for downloading files from the Web

FALSE:

- `wget` is a package manager for Linux
- `wget` always needs `sudo` for super-user rights
- `wget` is an installation program on debian-style Linux systems

Which of these statements about shell commands are NOT true?

TRUE:

- Commands are not case-sensitive
- Shell commands must be entered on the terminal to be executed

FALSE:

- Shell commands have the structure [cmd] -[options] [arguments]
- Long option have two dashes, like `--reverse` for `ls`

Feedback: Shell commands are case-sensitive, as are all names. This is not so on Windows (e.g. `DIR` and `dir` on the CMD line terminal). Shell commands can be put in `.sh` files and run by the shell program (e.g. `bash`).

Match the Linux directory and its purpose/content

`/`	Root directory where everything begins
`/bin`	Executable binaries for the OS to boot and run
`/boot`	Linux kernel, initial RAM disk image to boot
`/dev`	List for kernel with all known devices
`/etc`	System configuration files (e.g. `/etc/passwd`)
`/home`	Directory for user directories (e.g. `/home/pi`)
`/lib`	Shared library files (like Windows DLLs)
`/lost+found`	Panic room for each formatted disk partition
`/media`	Mount points for removable media (e.g. USB stick)
`/mnt`	Mount points for manually mounted removable media
`/opt`	Optional commercial software
`/proc`	Virtual FS for the kernel (e.g. `/proc/cpuinfo`)
`/root`	`$HOME` directory of the `root` super-user
`/sbin`	System binaries for system tasks (`sudo shutdown`)
`/tmp`	Holding bay for temp files, emptied at reboot
`/usr`	Programs and support files for regular users
`/usr/bin`	Executable programs of the distro[1] (e.g. `cat`)
`/usr/lib`	Shared libraries for `/usr/bin` programs
`/usr/local`	Programs not included in your distro
`/var`	Databases, spool files, user mail (volatile files)

| `/var/log` | Records of system activity (e.g. /var/log/syslog) |

The `apt` program manages package updates on Debian-like Linux systems

TRUE

On Linux, you can have spaces in file names, like `hello world.exe`

FALSE

Feedback `.exe` is a file ending for an executable file on Windows where spaces in file names are frequent (and frequently annoying). On Linux, and in all programming languages, spaces are replaced by underscores.

Footnotes:

[1] You have full access to (almost) all DataCamp courses through an academic alliance, which I have negotiated with the provider. Your free subscription has a value of $300 per year.

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