

Operating system introduction

operating system

Imagine if every program had to know every disk there is.

Imagine if every program had to know every network device there is

Imagine if you could run only one program at a time

....

operating system

Shares resources (CPU, I/O - mouse/keyboard/screen, Network ...) between programs.

operating system

Examples

- Android
 - GNU/Linux (Debian, RedHat, Ubuntu)
 - iOS
 - MacOs
 - Windows
- RTOS, Embedded OS

operating system

Kernel

I/O

File system

Networking

Loader



User

Program

OS

Hardware

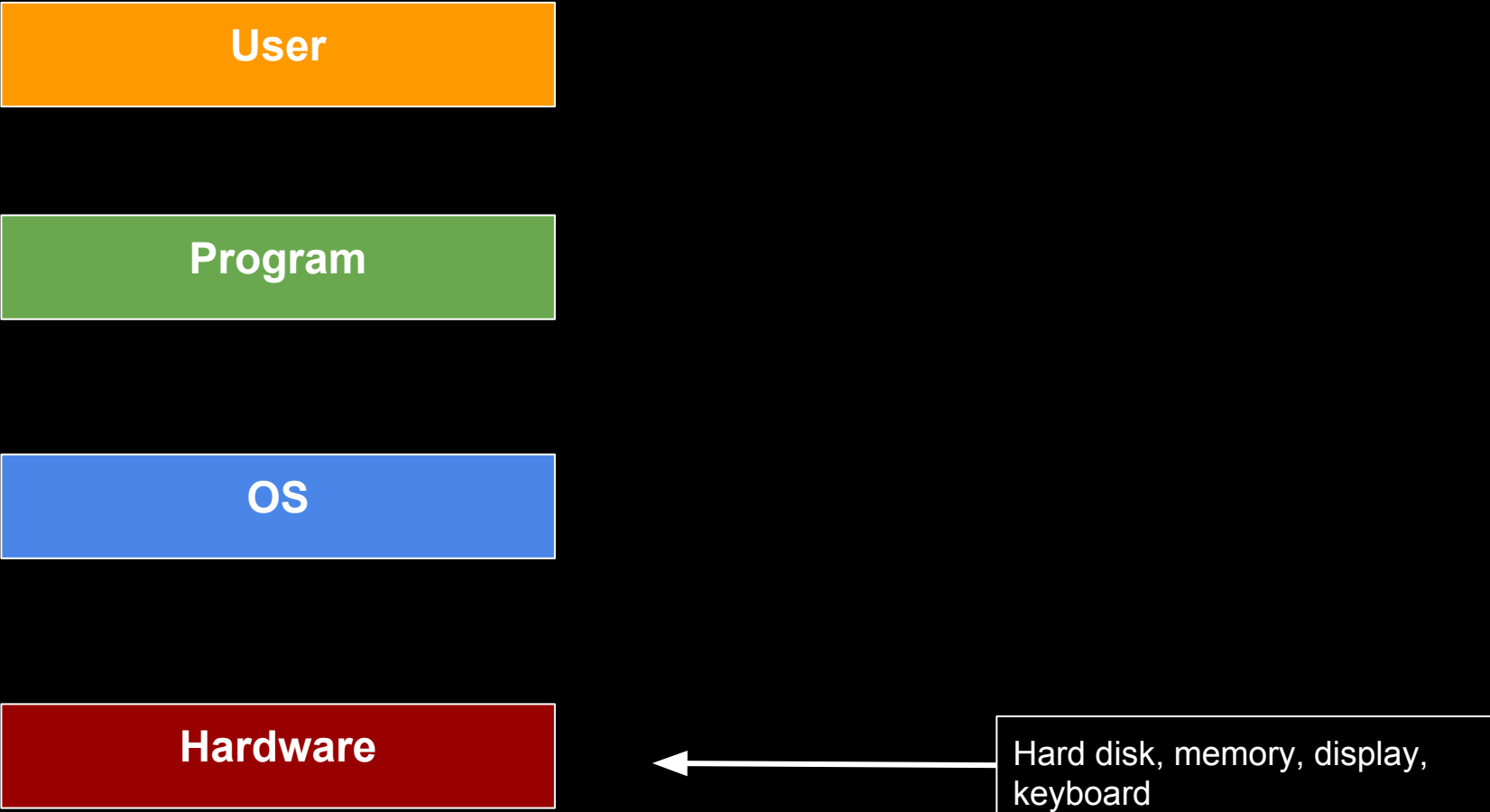
User

Program

OS

Hardware

Hard disk, memory, display,
keyboard



```
graph TD; User[User] --- Program[Program]; Program --- OS[OS]; OS --- Hardware[Hardware]; Hardware --- HardwareList[Hard disk, memory, display, keyboard]; HardwareList --> Hardware;
```

User

Program

OS

Hardware

GNU/Linux, MacOS, Windows,
....



User

Program

OS

Hardware

LibreOffice, Firefox, Chrome,
Twitter, Instagram ...



User

Typically you



Program

OS

Hardware

User

Typically you



Program

LibreOffice, Firefox, Chrome,
Twitter, Instagram ...



OS

GNU/Linux, MacOS, Windows,
....



Hardware

Hard disk, memory, display,
keyboard

