



Computer Fundamentals



Agenda



► Operating Systems

Introduction



Were you able to finish pre-class material?



Introduction



How long did it take to finish it?



JSWAY©

Students choose an option

Pear Deck Interactive Slide

Do not remove this bar

Operating Systems



- **Music**
- **Video**
- **Chat**
- **Shopping**
- **Coding**
- **Reading**
- **Gaming**

Operating Systems

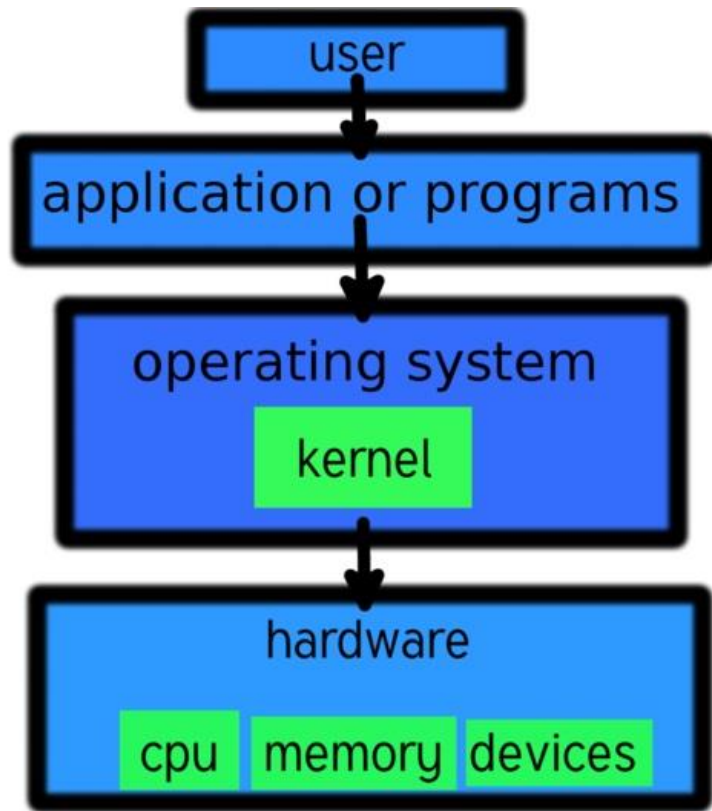


- **OPERATING SYSTEMS:**
AN OPERATING SYSTEM (OS) IS SYSTEM SOFTWARE THAT MANAGES COMPUTER HARDWARE AND SOFTWARE RESOURCES AND PROVIDES COMMON SERVICES FOR COMPUTER PROGRAMS REQUIRE AN OPERATING SYSTEM TO FUNCTION.





Operating Systems



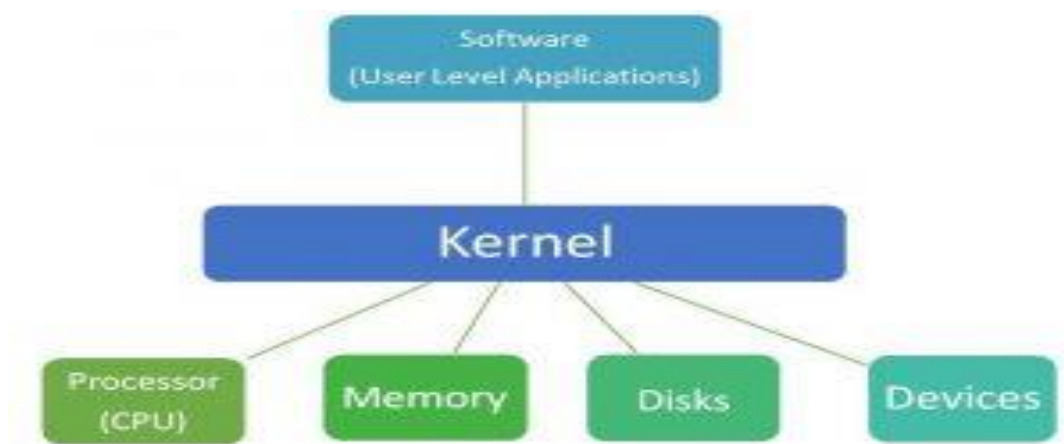


Operating Systems



Kernel:

It connects applications to the actual processing of data. It also manages all communications between software and hardware components to ensure usability and reliability.



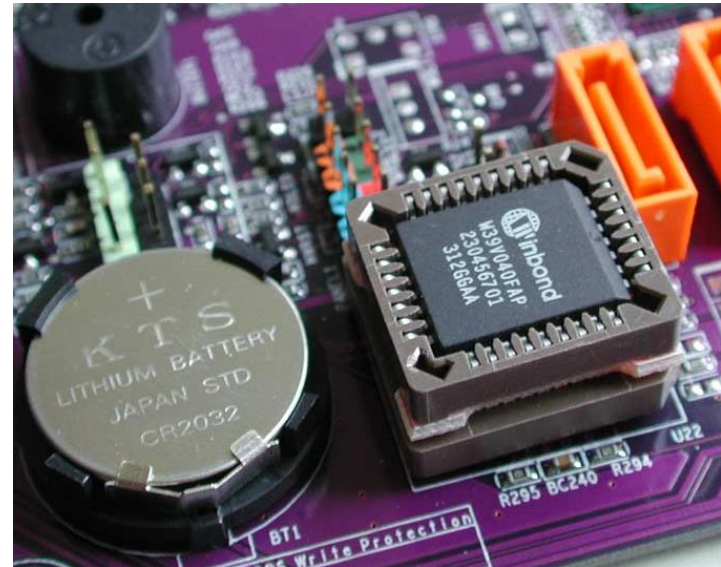
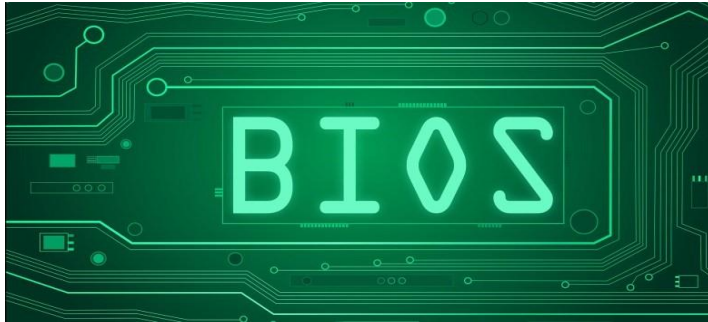


Operating Systems



BIOS (Basic Input Output System):

It is firmware used to perform hardware initialization during the booting process (power-on startup), and to provide runtime services for operating systems and programs.





Question: What does OS manage?



Students, write your response!

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Operating Systems



Linux





Operating Systems



Please write your computers and mobile phones operating system.





Operating Systems

- **Terminal**

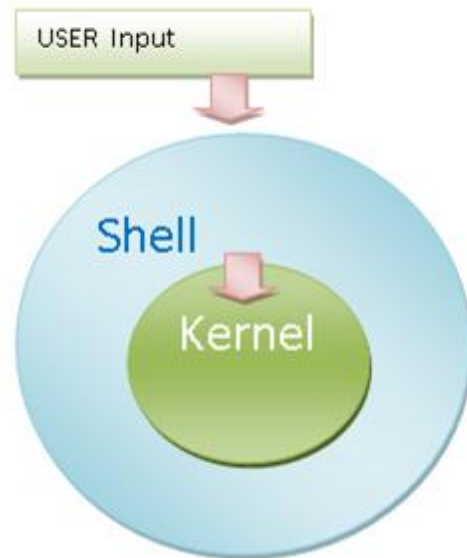
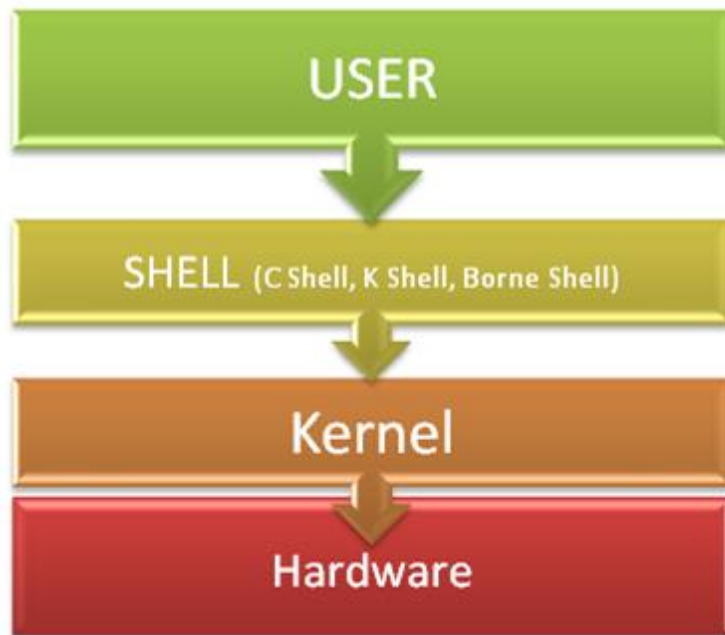
```
howtogeek@ubuntu: ~$
```

```
itechno8 — -bash — 80x24
Last login: Sun Aug 11 23:39:40 on console
Shujaas-MacBook-Pro:~ itechno8$ open /Users/iTechno8/Documents
```



Operating Systems

- **Shell**

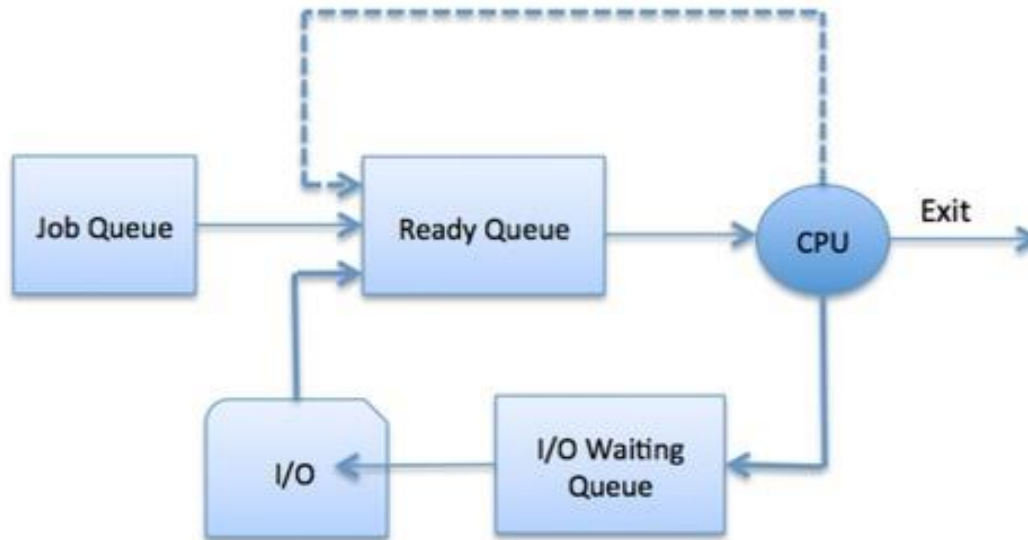




Operating Systems



What do you know about scheduling?





Operating Systems



Scheduling:

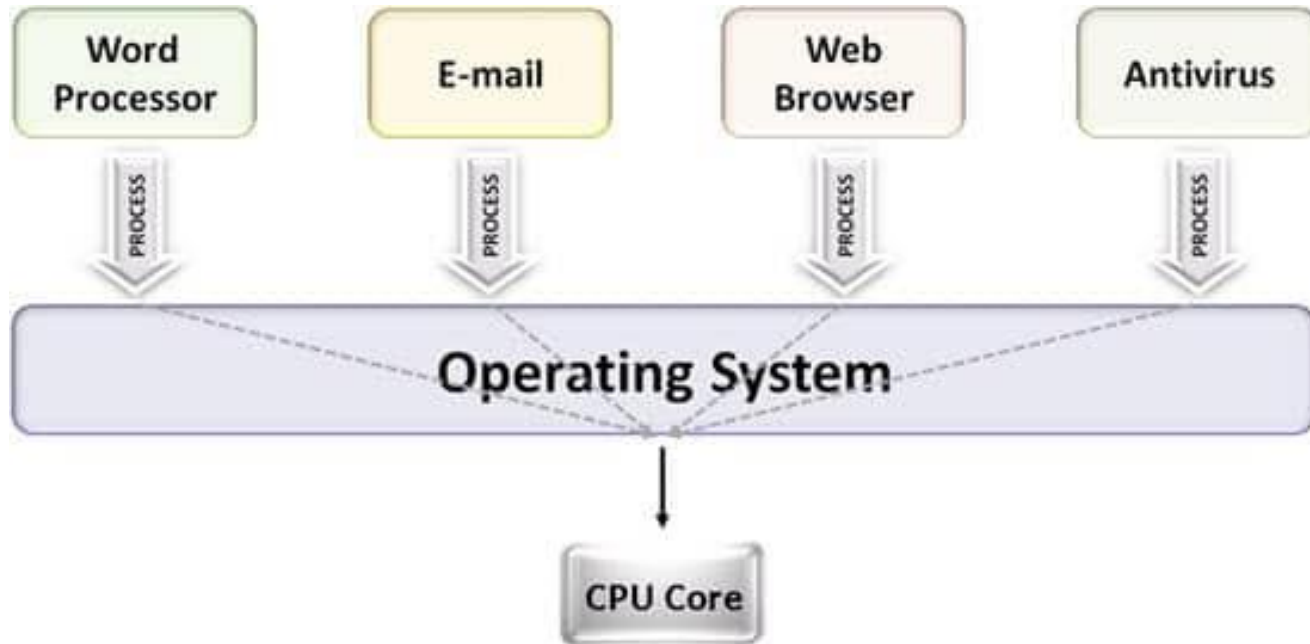
- Multiprogramming
- Multiprocessing
- Multithreading



Operating Systems



- Multiprogramming

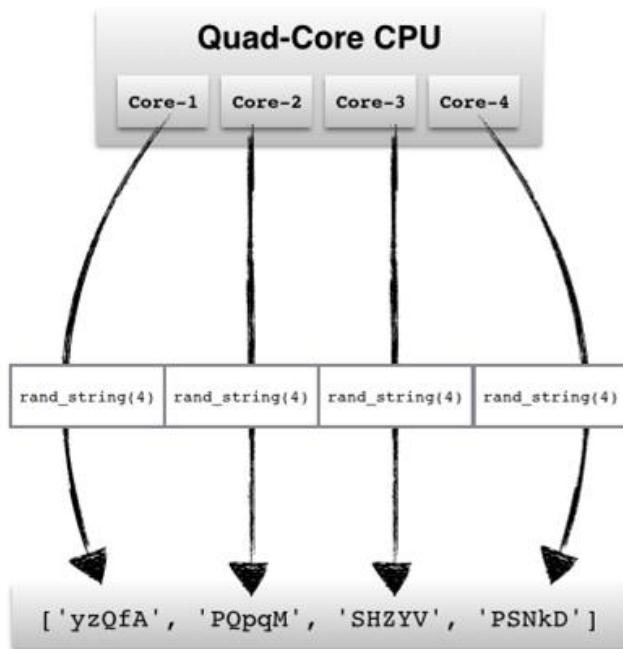




Operating Systems

- Multiprocessing

[parallel processing]

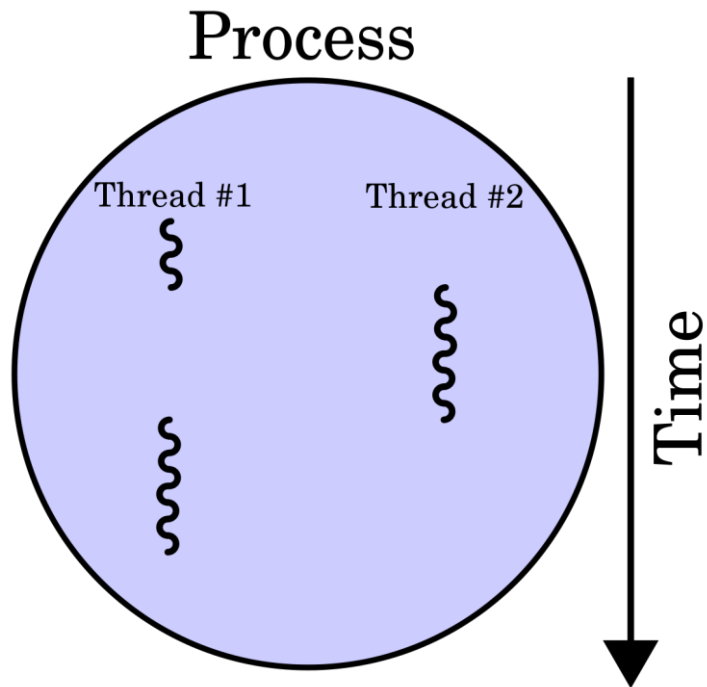




Operating Systems



- Multithreading





What is the difference between processes and threads?

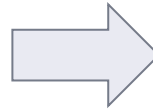


Operating Systems



- **Files:**

Files are spaces on your computer where data is stored.





Operating Systems



- **Metadata**



Operating Systems



- **Metadata**

Metadata example

Structural

Song Title:
Artist Name:
Album Title:
Genre:
Release Year:
Track Number:
Composer:
Copyright:

Descriptive

Better Man
Pearl Jam
Vitalogy
Rock
1994
11 of 14
Eddie Vedder
© Pearl Jam

Administrative

Added By:
Date Added:
Encoded With:
Media Kind:

Robert Godino
26/11/2016 8:19 pm
iTune v7.6.1
MPEG audio file

↑
Elements

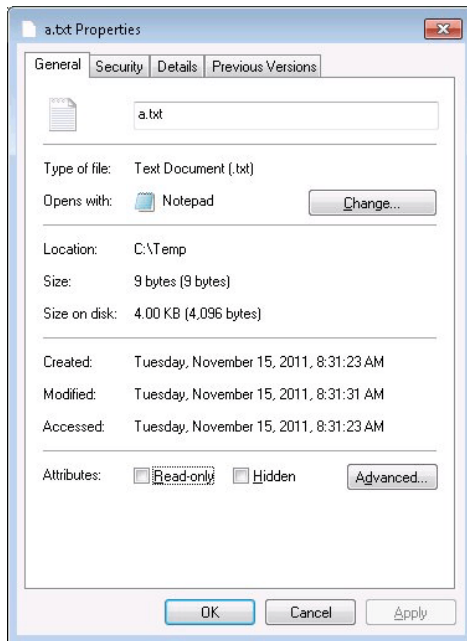
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Values

Operating Systems



- **File Attributes:**

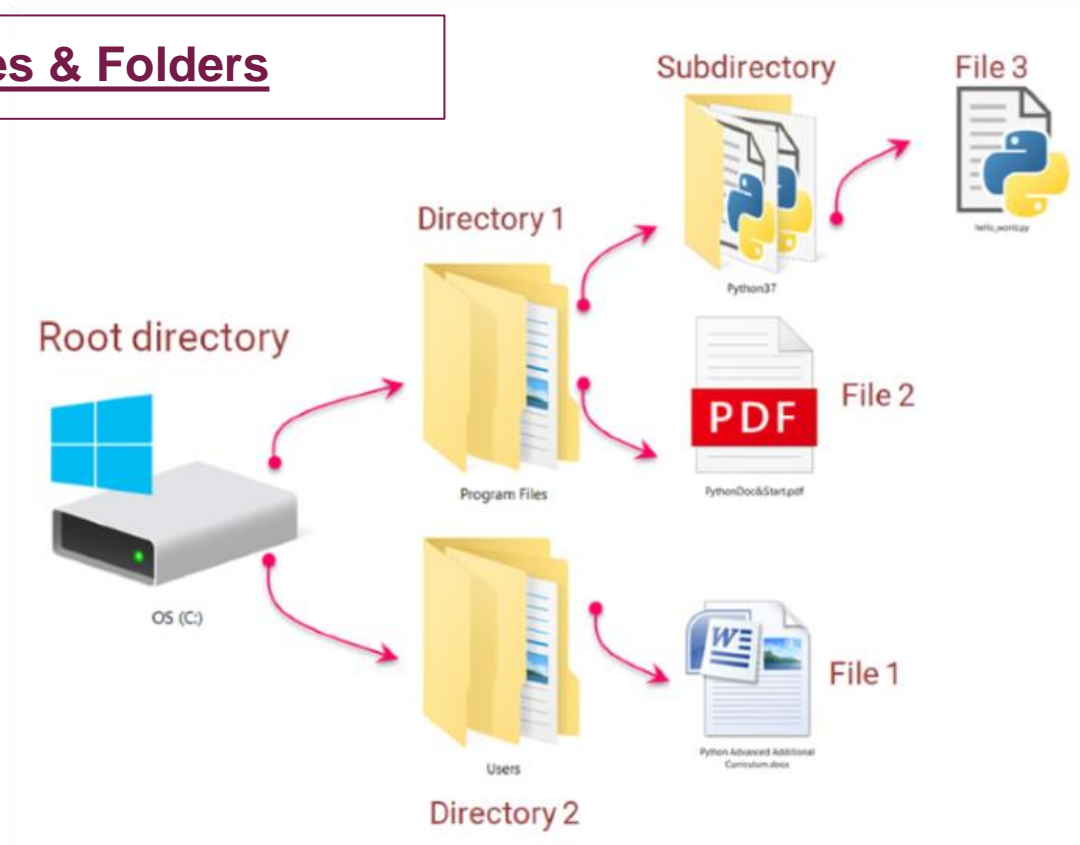
File attributes are metadata associated with computer files that define file system behavior.



Operating Systems



- **Directories & Folders**



Drag your dot to how you are feeling:



Keep going, I understand



I'm a little confused



Stop, I need help!



Students, drag the icon!



Kahoot!

THANKS!

Any questions?

