Algoritmos
Introdução a Computação

Prof. Hitoshi Nagano, Ph.D.

Aula 3

Operações com Strings

- um exemplo -

atcaatgatcaacgtaagcttctaagcatgatcaaggtgctcacacagtttatccacaacctgagtgga
tgacatcaagataggtcgttgtatctccttcctctcgtactctcatgaccacggaaagatgatcaagag
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ttgaagatcttcaattgttaattctcttgcctcgactcatagccatgatgagctcttgatcatgtttcc
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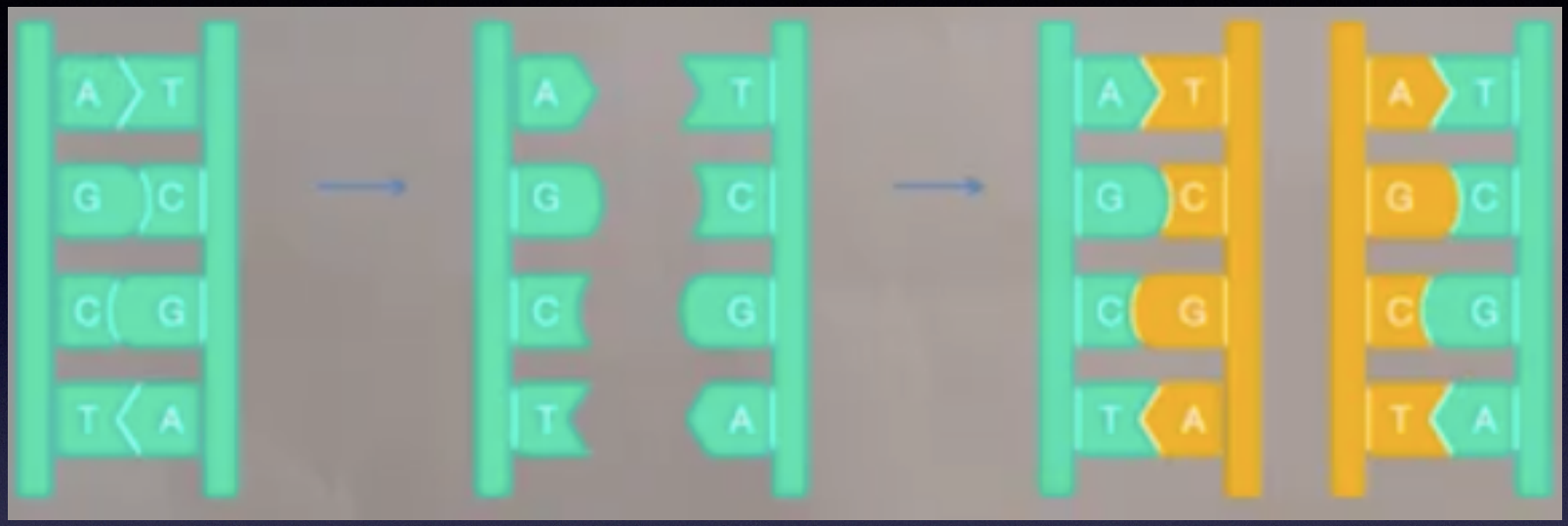
A T
G C
C G
T A
A T
G C
C G
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T A
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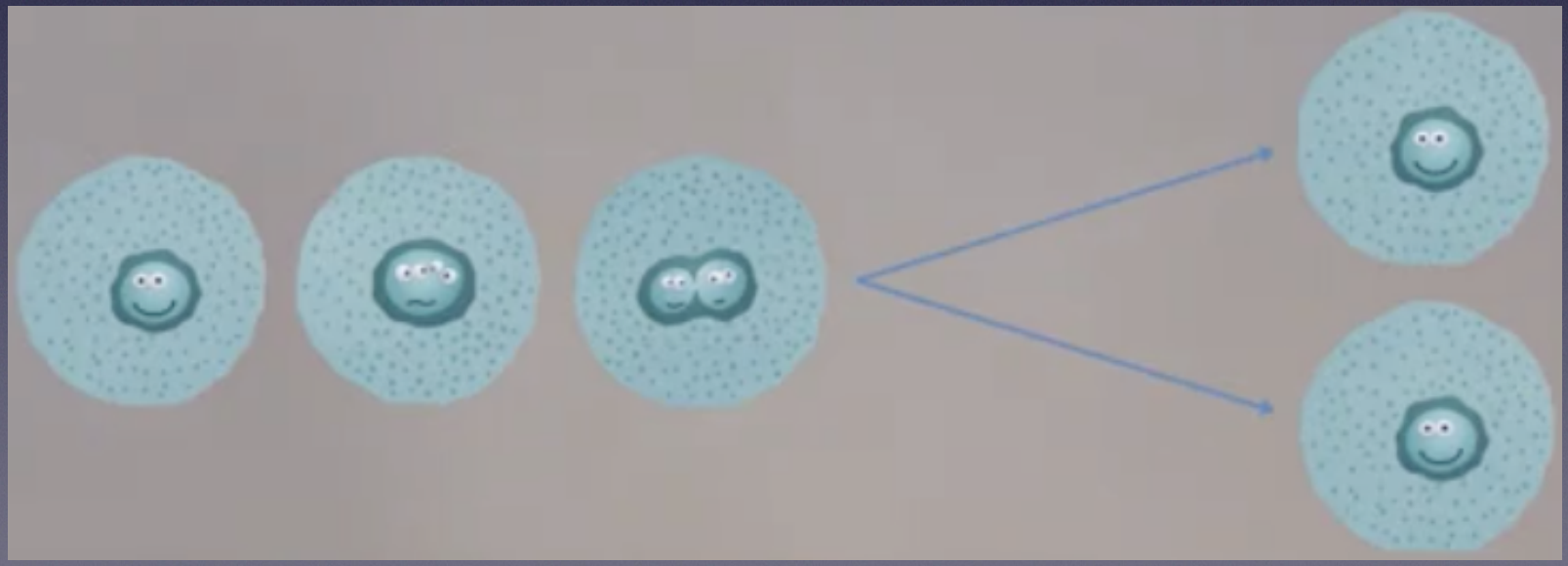
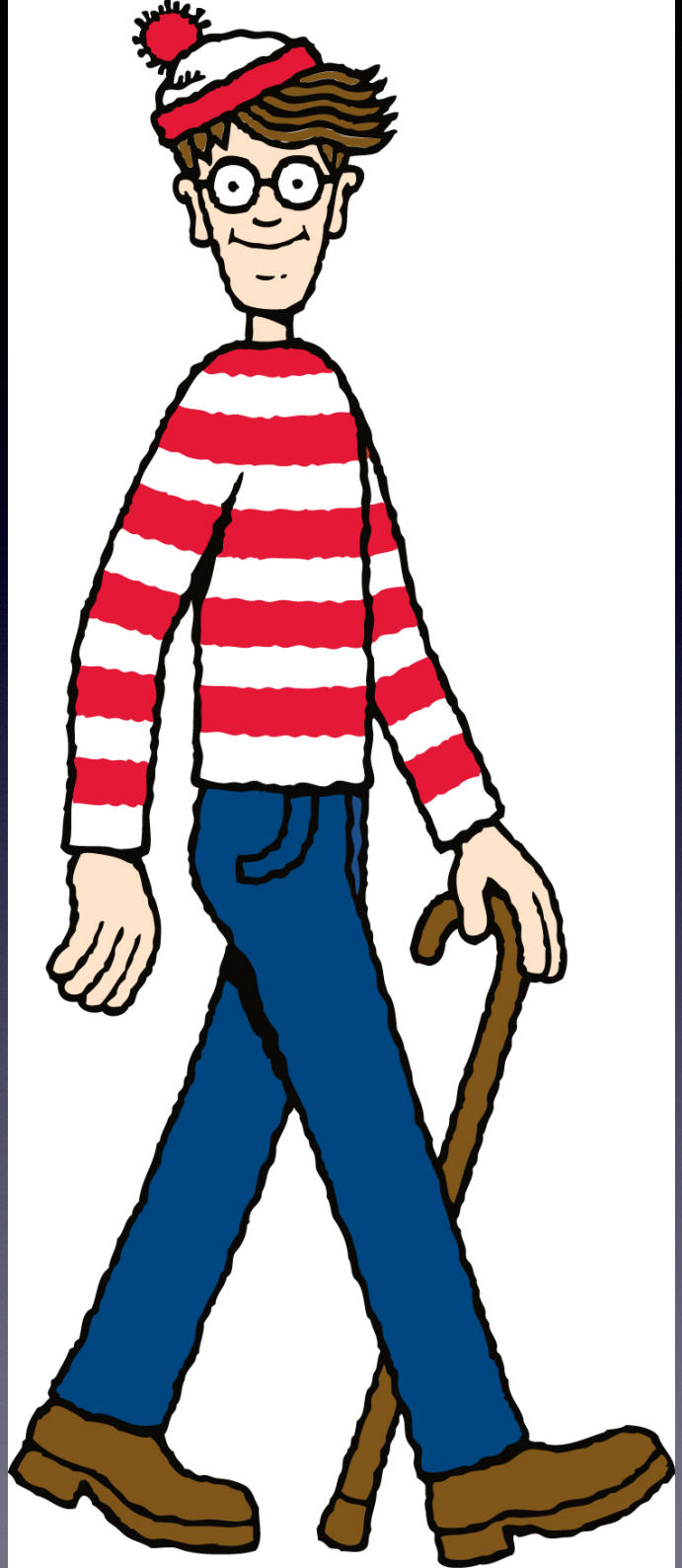
G C
C G
T A





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ATGATCAAG

TACTAGTTC

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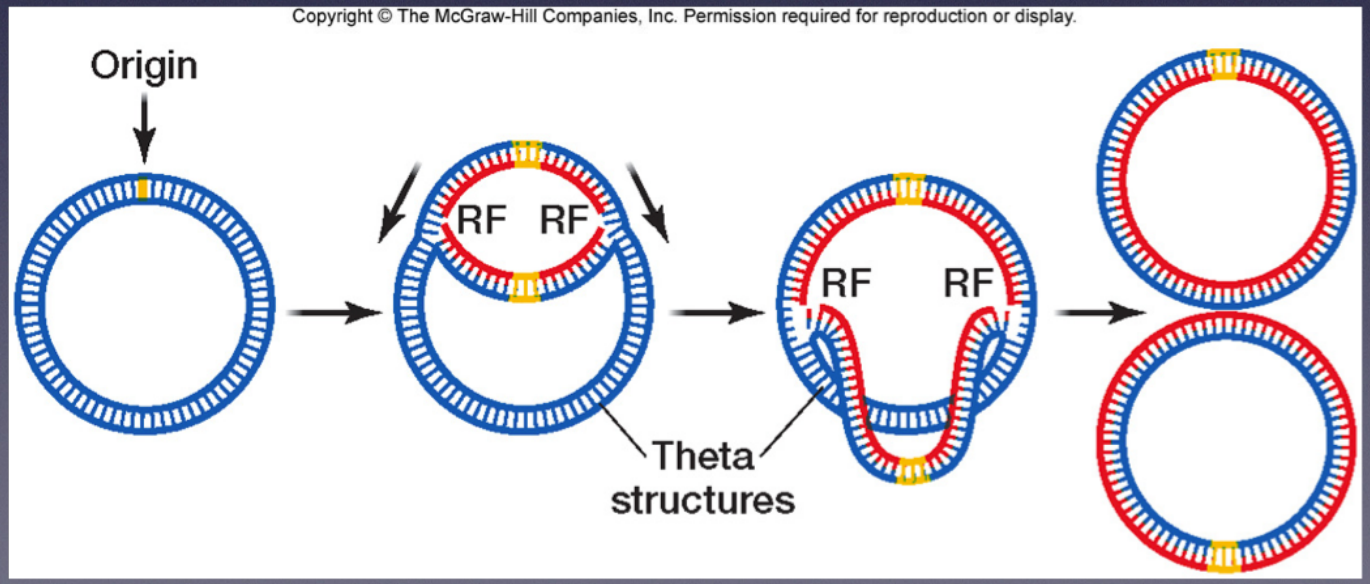

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vibrio cholerae

ATGATCAAG

TACTAGTTC

Bio-informática

atcaatgatcaacgtaagcttctaagcATGATCAAGgtgctcacacagtttatccacaacctgagtgga
tgacatcaagataggtcgttgtatctccttcctctcgtactctcatgaccacggaaagATGATCAAGag
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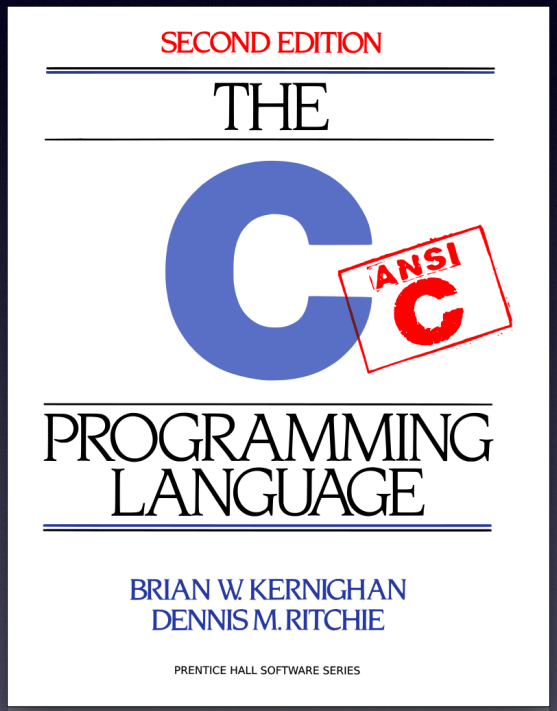
http://pt.wikipedia.org/wiki/Bioinformática

Raciocinio Computacional

Raciocinio Computacional

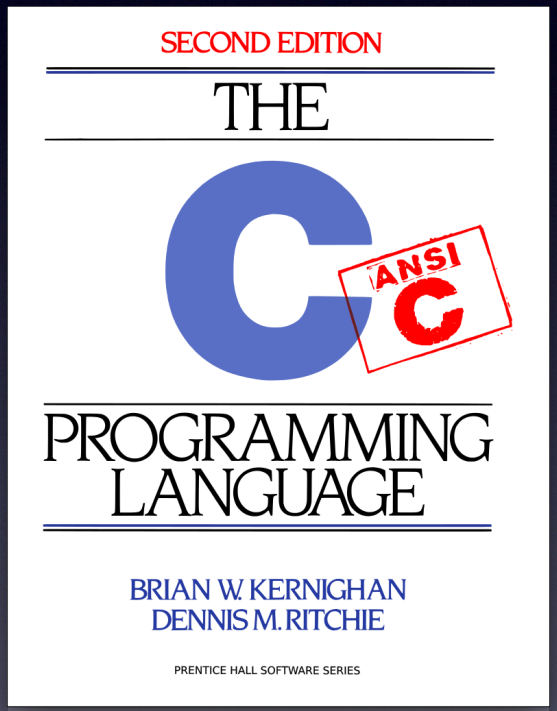


Raciocinio Computacional

Raciocinio Computacional

```
int claraAltura = 138;
int pedroAltura = 156;

if (claraAltura < pedroAltura)

{
   printf("Pedro eh mais alto\n");
}

else if (pedroAltura < claraAltura)
  {
     printf("Clara eh mais alta\n");
  }

else
  {
     printf("Clara e Pedro tem a mesma altura\n");
  }
```

Infelizmente, para...

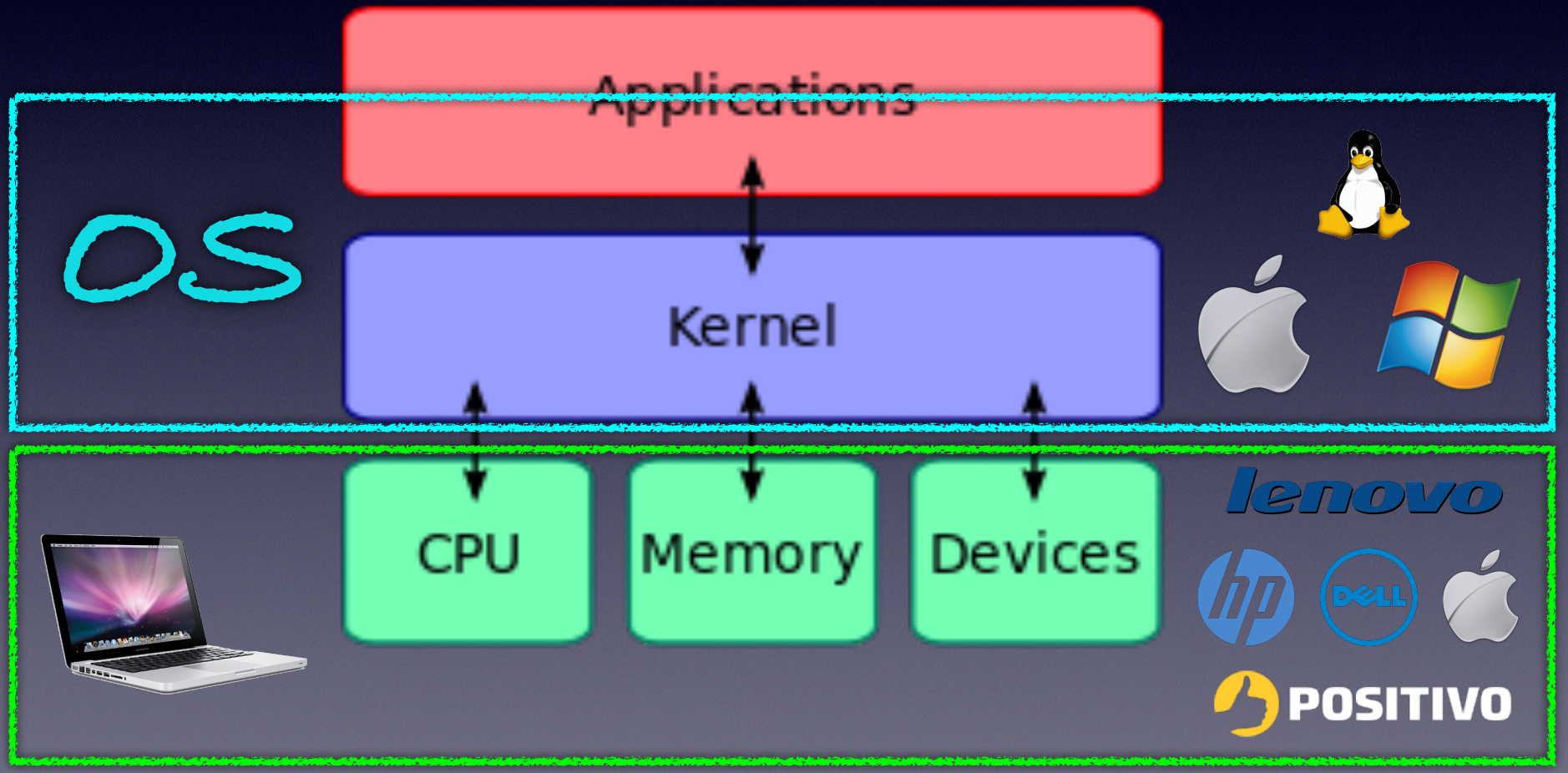


... precisamos aprender:

- Sistema Operacional
- Sistema de Arquivos
- Terminal / CLI
- Interface Gráfica
- Compiladores
- Hardware
- ...

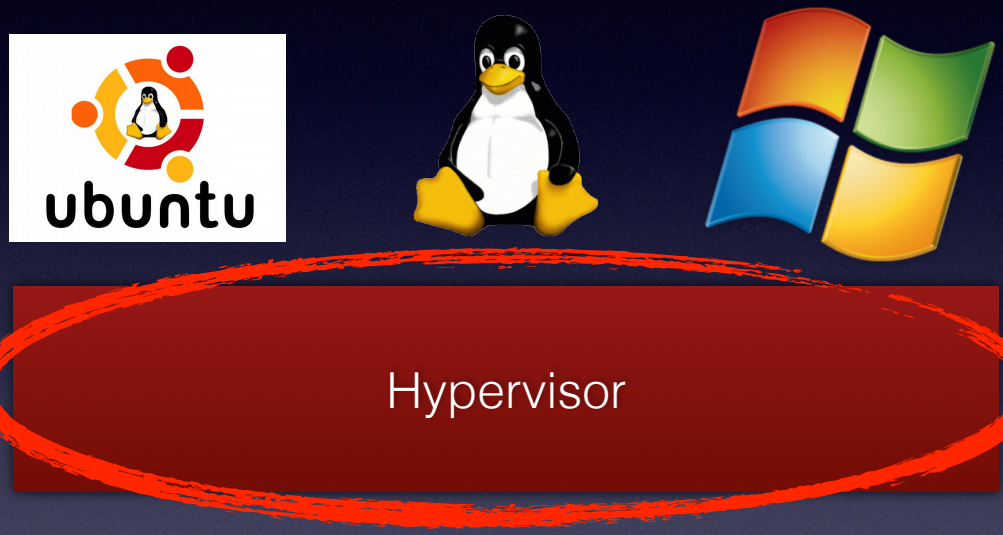
Linux
Sistema Operacional

Sistema Operacional (OS) ou Kernel?

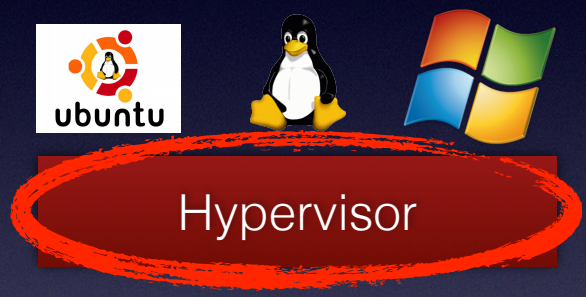


Virtual Machine

Virtual Machine



Hypervisors



Para Host OS Windows:

VMware: https://my.vmware.com/web/vmware/free#desktop_end_user_computing/vmware_player/7_0

OU

Oracle:https://www.virtualbox.org/wiki/Downloads

Linux - Ubuntu 14

http://www.ubuntu.com/download/desktop

Demonstração

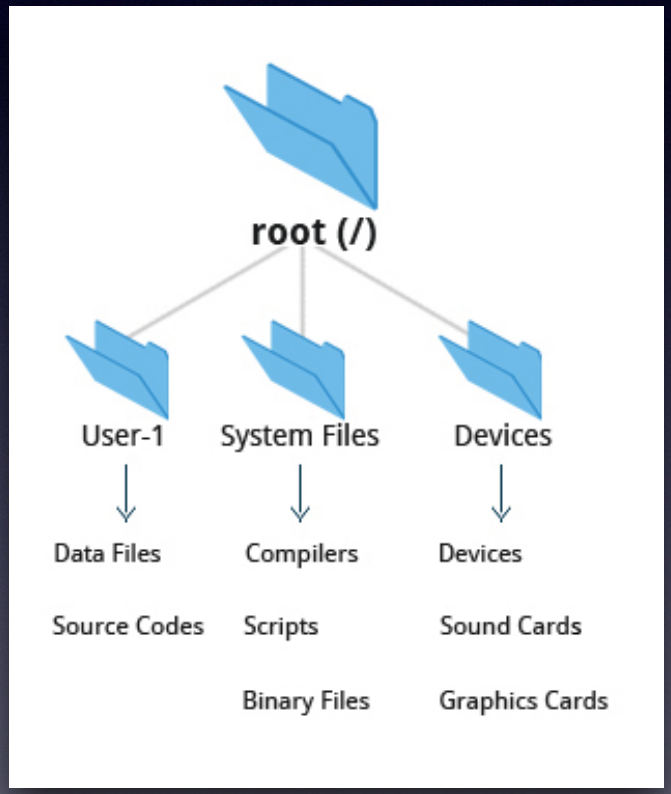
Linux filesystem

(Sistema de arquivos)

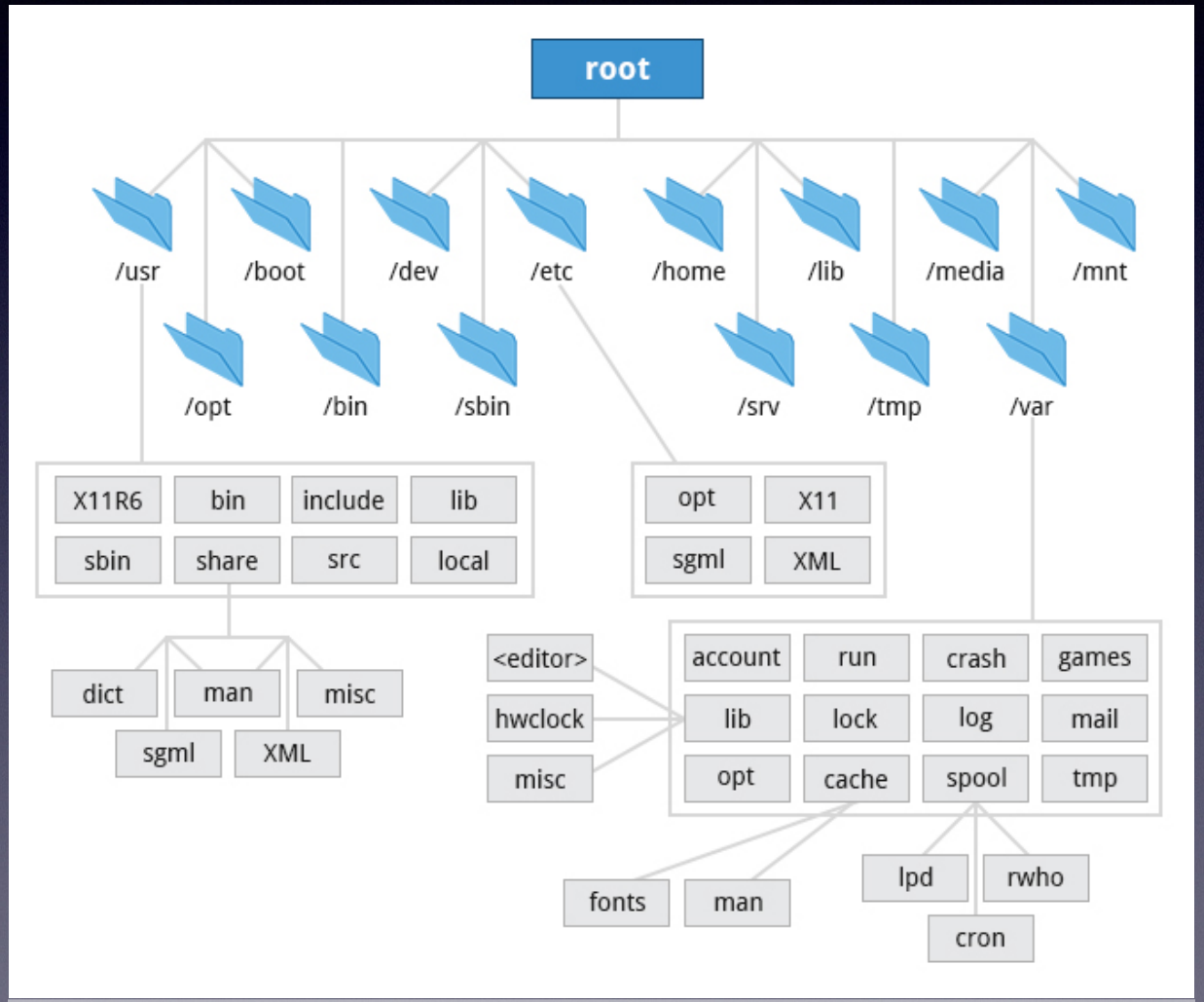
Sistema de arquivos

(filesystem)

Sistema de arquivos
(filesystem)



Sistema de arquivos
(filesystem)



Tipos de FileSystems

- Windows
  FAT
  FAT32
  NTFS
  ReFS
- Mac
  HFS+
  FAT32
- Linux
  Ext4
  XFS
  JFS
  FAT32
  …

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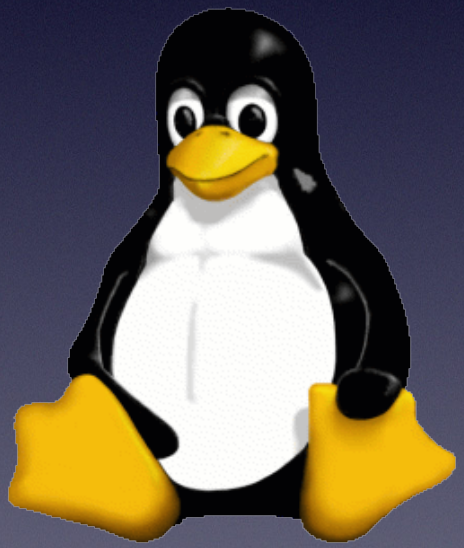
Demonstração
(filesystem)



Linux - principais comandos

- `ls, cd, mkdir, cp, mv …`
- https://linux.ime.usp.br/~lucasmmg/livecd/documentacao/documentos/terminal/Terminal_basico.html