Introdução ao Processamento de Dados

Francisco Sant'Anna

francisco@ime.uerj.br

http://github.com/fsantanna-uerj/IPD

Processamento de Dados



"Oi Mundo!"

```
print("Oi Mundo!")
print("Escolha um numero:")
n ← input()
print("Voce escolheu", n)
print("Escolha entre 1-9:")
n \leftarrow input()
if n == 5:
  print("Voce acertou!")
else:
    print("Voce errou!")
```

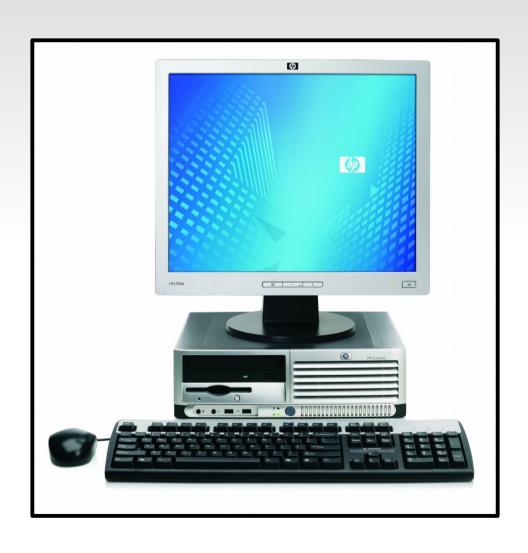
Palavras em negrito?

Indentação

"Oi Mundo!"

```
print("Escolha um numero:")
n ← input()
soma ← 0
while n > 0:
    soma ← (soma + n)
    n ← (n - 1)
print("somou", soma)
```

Computador???





Dispositivos de Entrada e Saída (I/O)



1 - DE ENTRADA (INPUT):



TECLADO



Mouse



Joystick



Webcam



microfone



Scanner



Mesa Digitalizadora

2 - DE SAÍDA (OUTPUT):

MONITOR

CRT



Cristal Líquido



LCD



Projetor Multimídia



Impressora



Caixas de som



35

Dispositivos de Entrada e Saída (I/O)









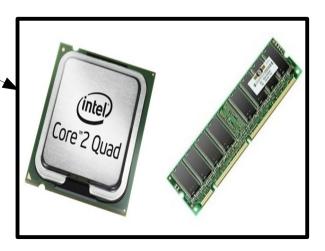
Computador???











Computador é Programável

Hardware + Software

Hardware vs Software

The main difference between hardware and software are as follows:

Hardware

- 1. Physical parts of the computer are called hardware.
- 2. You can touch, see and feel hardware.
- 3. Hardware is constructed using physical materials or components.



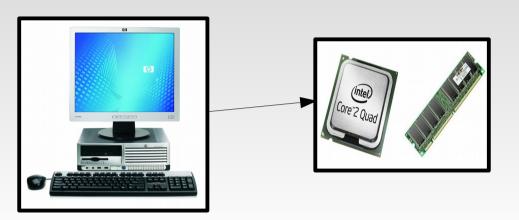
- 7. Hardware cannot be transferred from one place to another electronically through network.
- 8. User cannot make new duplicate copies of the hardware.

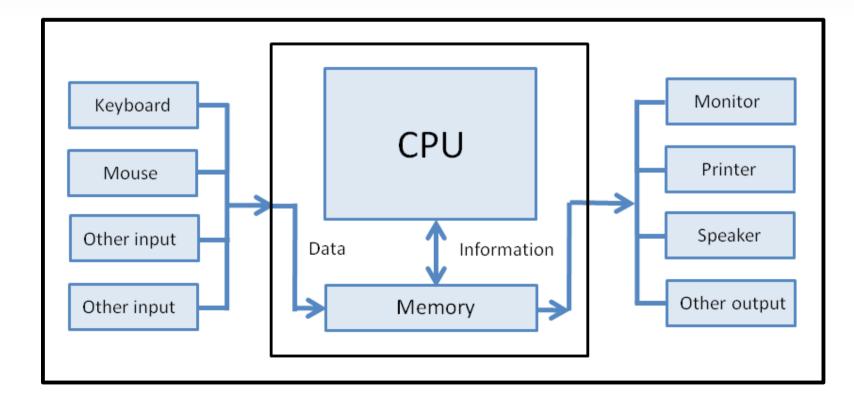
Software

- 1. A set of instructions given to the computer is called software.
- You cannot touch and feel software.
- 3. Software is developed by writing instructions in programming language.
- 4. The operations of computer are controlled through software.
- 5. If software is damaged or corrupted, its backup copy can be reinstalled.
- 6. Software is affected by computer viruses.
- 7. Software can be transferred from one lace to another electronically through network.
- 8. User can make many new duplicate copies of the software.



Computador!





"Oi Mundo!"

```
n ← input ("Escolha um numero: ")

soma ← 0

while n → 0:

soma ← (soma + n)

n ← (n ← 1)

print ("somou", soma)
```

