# Introdução ao Processamento de Dados

#### Francisco Sant'Anna

francisco@ime.uerj.br

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

### Processamento de Dados



#### "Oi Mundo!"

```
print("0i Mundo!")
print("Escolha um numero:")
n \leftarrow input()
print("Voce escolheu", n)
print("Escolha entre 1-9:")
n \leftarrow input()
if n == 5:
  print("Voce acertou!")
else:
    print("Voce errou!")
```

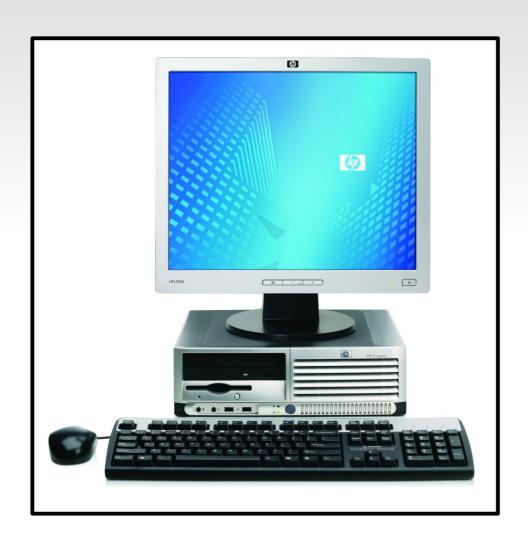
Palavras em negrito?

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)

#### PERIFÉRICOS DO COMPUTADOR

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)









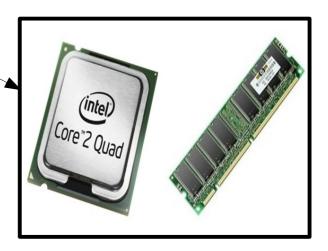
## Computador???











# 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.

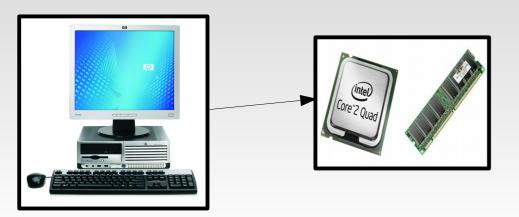
#### Software

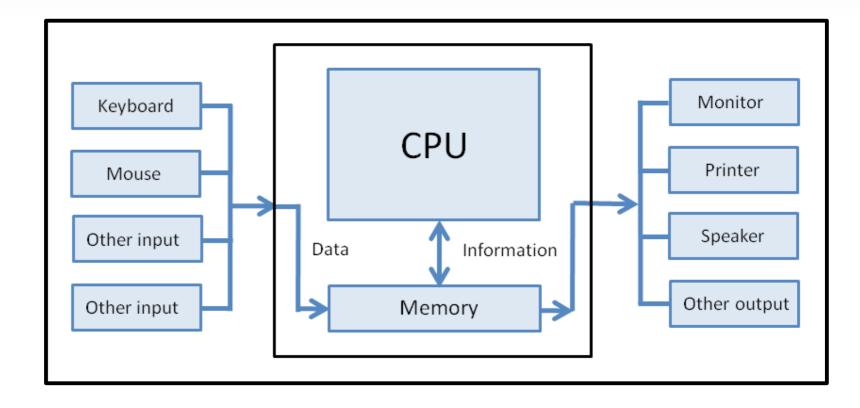
- 1. A set of instructions given to the computer is called software.
- 2. You cannot touch and feel software.
- 3. Software is developed by writing instructions in programming language.
- 4. The operations of computer are controlled through software.
- 5. If software is damaged or corrupted, its backup copy can be reinstalled.
- 6. Software is affected by computer viruses.
- 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)
```

