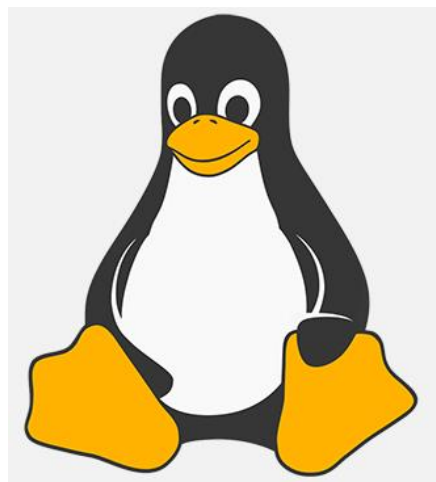



O Sistema Operacional LINUX



Linux

- ▶ Criado em 1991 por Linus Torvalds
- ▶ Variação do sistema *Minix* do Tanenbaum (que se baseou no Unix)
- ▶ Distribuído com licença GNU/GPL para conseguir mais colaboradores
- ▶ Nas primeiras versões somente com linha de comando

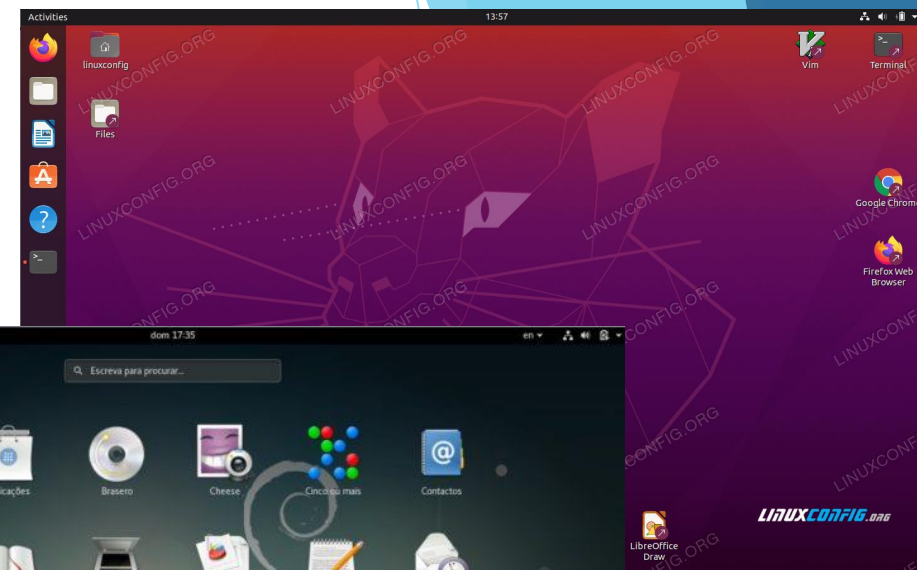


```
Welcome to the KNOPPIX live GNU/Linux on DVD!

Running Linux Kernel 2.6.24.4.
Total Memory available: 124132kB, Memory free: 118180kB.
Scanning for USB/Firewire devices... Done.
Enabling DMA acceleration for: hdc      [QEMU CD-ROM]
Accessing KNOPPIX DVD at /dev/hdc...
Found primary KNOPPIX compressed image at /cdrom/KNOPPIX/KNOPPIX.
Found additional KNOPPIX compressed image at /cdrom/KNOPPIX/KNOPPIX2.
Creating /ramdisk (dynamic size=99304k) on shared memory...Done.
Creating unified filesystem and symlinks on ramdisk...
>> Read-only DVD system successfully merged with read-write /ramdisk.
Done.
Starting INIT (process 1).
```

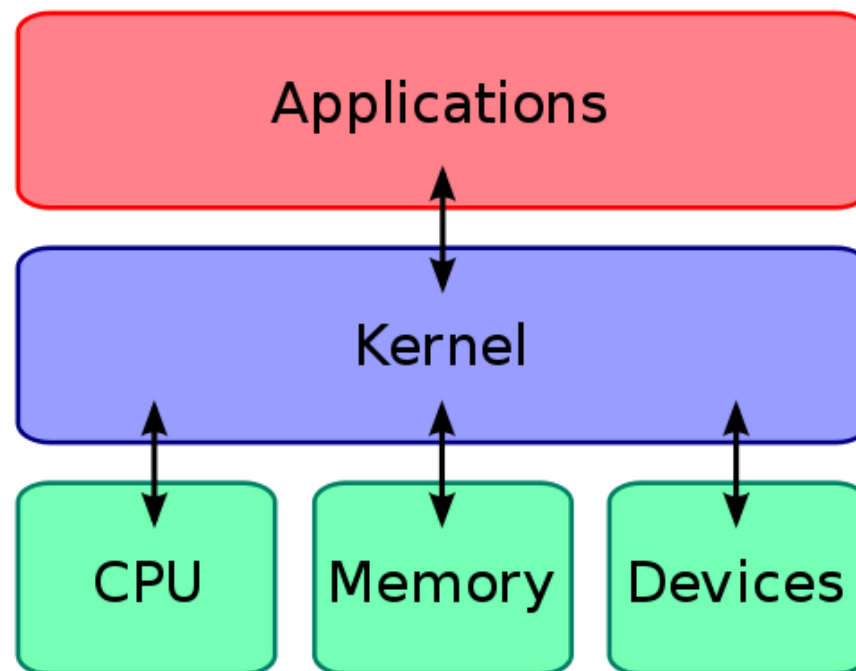
Distribuições Linux

- ▶ Ubuntu
- ▶ Debian
- ▶ Fedora
- ▶ OpenSuse



Kernel do Linux

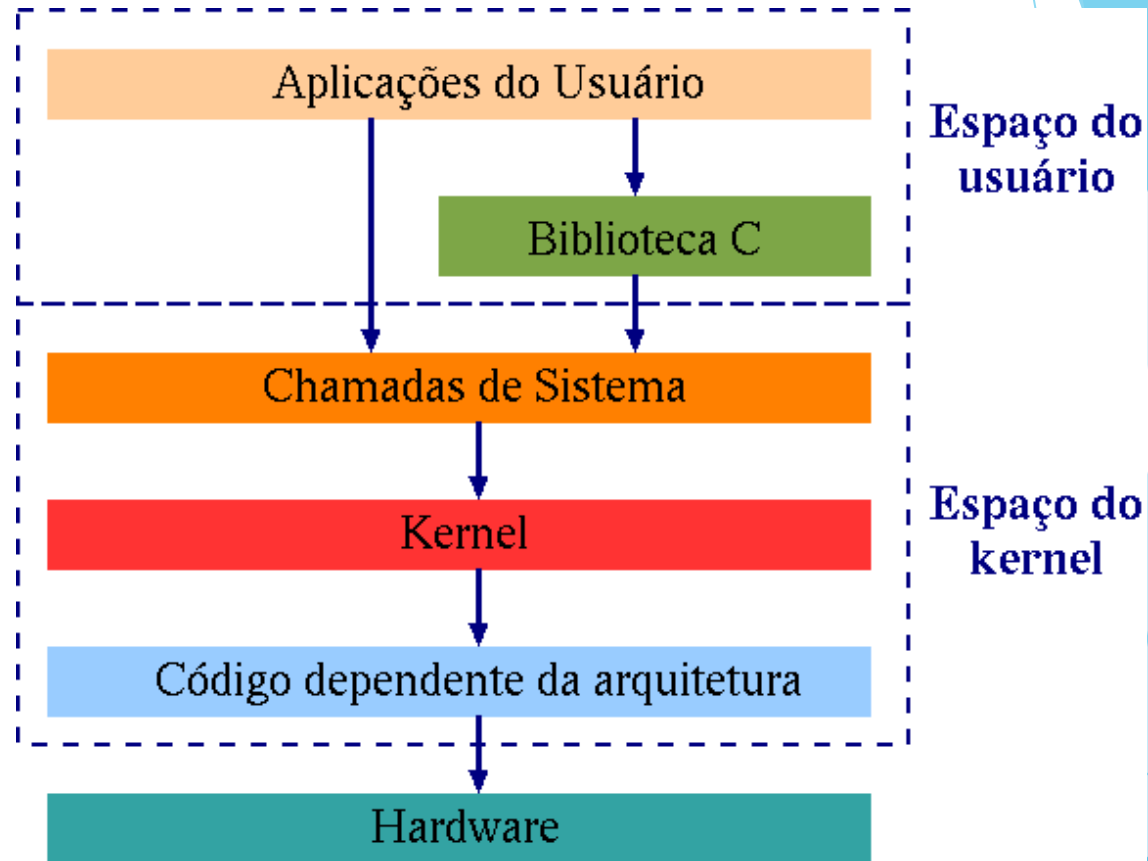
- ▶ Núcleo do Sistema
- ▶ Funções:
 - ▶ Gerenciamento de Memória
 - ▶ Gerenciamento de Processos
 - ▶ Drivers de Dispositivos
 - ▶ Chamadas do sistema



Memória RAM

► Espaço do usuário

► Espaço do Kernel



Uso de Memória RAM

- ▶ Kernel
- ▶ Prioridade → Processos em execução
- ▶ Cache → Resíduos de processos encerrados
- ▶ SWAP → Apoio em Disco



A screenshot of a terminal window titled 'xterm'. The prompt is 'xah@xah-p6813w' and the date/time is '2017-01-02 02:58'. The command 'free -h' has been executed, displaying the following memory usage statistics:

	total	used	free	shared	buff/cache	available
Mem:	5.6G	2.9G	212M	493M	2.5G	1.9G
Swap:	5.7G	479M	5.3G			

The prompt is now 'xah@xah-p6813w' and the date/time is '2017-01-02 02:59'. There is a cursor on the line below the second prompt.