

**INSTITUTO FEDERAL DE
EDUCAÇÃO, CIÊNCIA E TECNOLOGIA**
RIO GRANDE DO NORTE



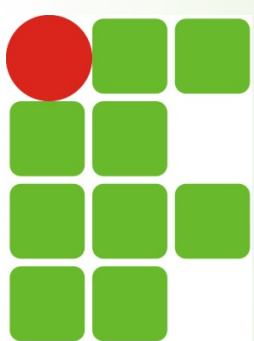
REDE FEDERAL
DE EDUCAÇÃO
PROFISSIONAL
E TECNOLÓGICA

1909-2009

Sistemas Operacionais de Redes

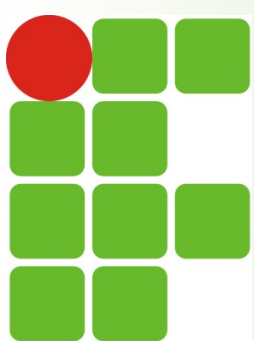
Aula: Instalação do Debian 7

Professor: Jefferson Silva



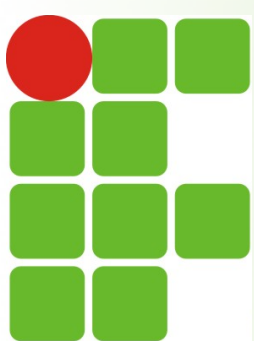
Agenda

- O que é uma máquina virtual (VM)
- Como criar uma VM
- Instalando o Debian 7 x86_64

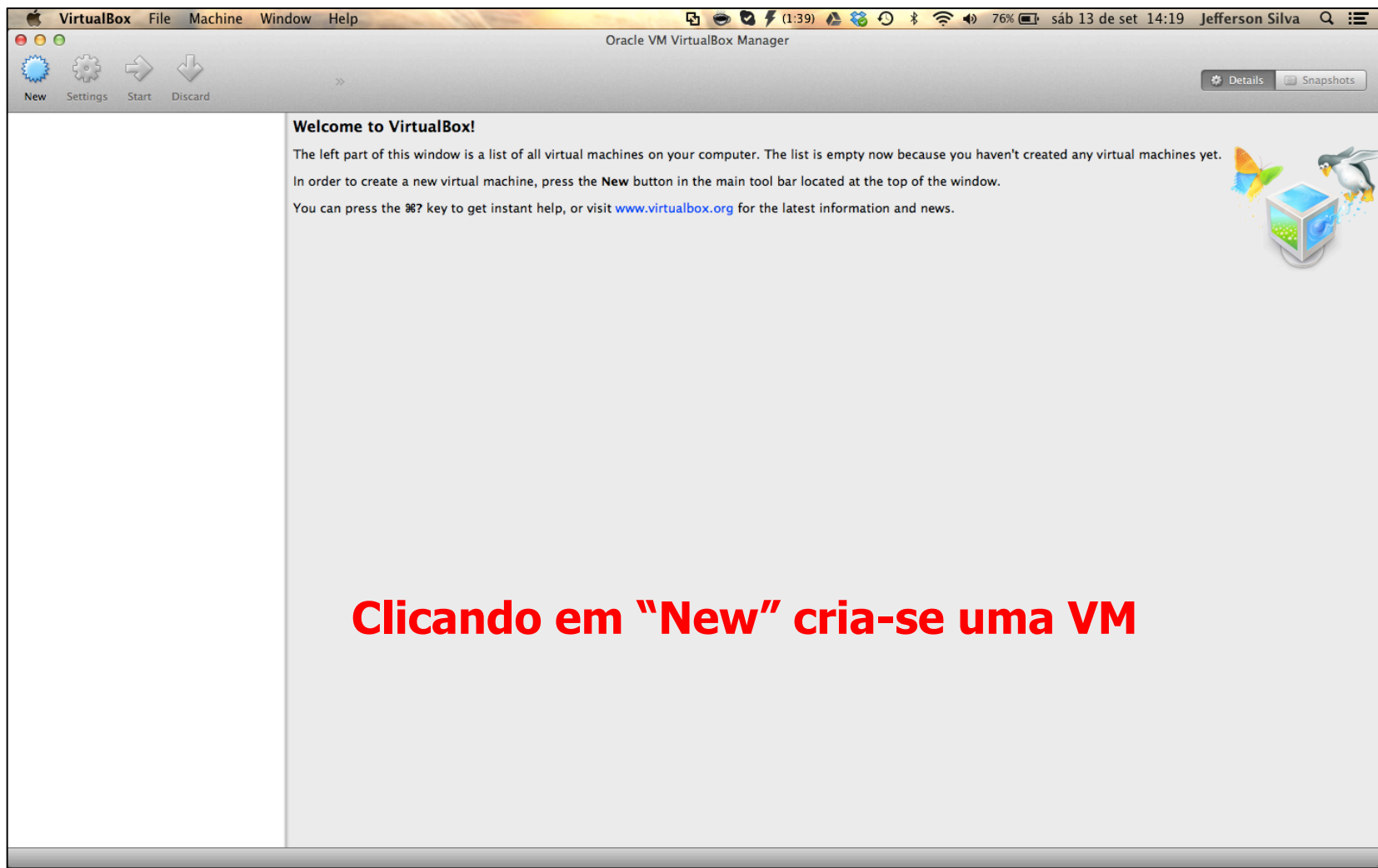


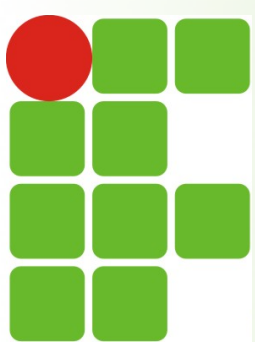
Máquinas virtuais

- São servidores configurados dentro de um sistema operacional especializado
- Seria como um “servidor dentro de outro”
 - Vantagem: Aumenta o uso dos recursos do servidor
 - Desvantagem: Compartilhamento de recursos
- É a realidade nos dias atuais



VirtualBox: Gerenciador de VMs





Criando uma VM


VirtualBox!

this window is a list of all virtual machines on your computer. The list is empty now because you have not created any yet. To create a new virtual machine, press the **New** button in the toolbar. For more information, press the **F1** key to get instant help, or visit the VirtualBox website.

Name and operating system

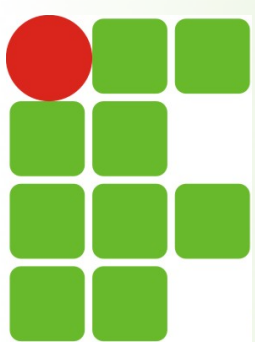
Please choose a descriptive name for the new virtual machine and select the type of operating system you intend to install on it. The name you choose will be used throughout VirtualBox to identify this machine.

Name:

Type: 

Version:

Coloque o nome da VM, o tipo e a versão



Ajuste a quantidade de memória RAM

VirtualBox!

this window is a list of all virtual machines on your computer. The list is empty now because you have not created any virtual machines yet. To create a new virtual machine, press the **New** button in the top left corner of the window. For more information, press the **?** key to get instant help, or visit www.virtualbox.org for the latest information and news.

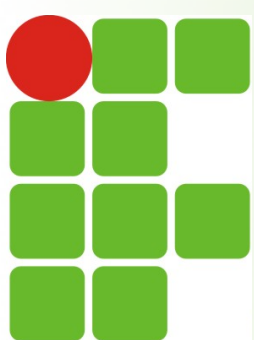
Memory size

Select the amount of memory (RAM) in megabytes to be allocated to the virtual machine.
The recommended memory size is 512 MB.

4 MB 4096 MB

256 MB

Go Back Continue



Especifique o disco rígido (HD)

VirtualBox!

Hard drive


This window is a list of all virtual machines on your computer. The list is empty now because you have not yet created any. To create a new virtual machine, press the **+** button of the window. Press the **F1** key to get instant help, or press the **?** key to get help on the current screen.

If you wish you can add a virtual hard drive to the new machine. You can either create a new hard drive file or select one from the list or from another location using the folder icon.

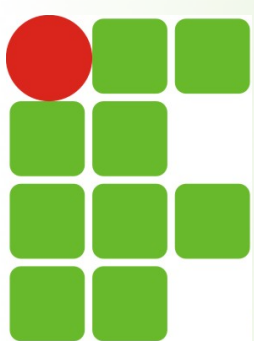
If you need a more complex storage set-up you can skip this step and make the changes to the machine settings once the machine is created.

The recommended size of the hard drive is **8,00 GB**.

- Do not add a virtual hard drive
- Create a virtual hard drive now
- Use an existing virtual hard drive file

Slackware 14.vdi (Normal, 8,00 GB) 

Escolha "criar um HD"



Escolha o formato do HD

Hard drive file type

Please choose the type of file that you would like to use for the new virtual hard drive. If you do not need to use it with other virtualization software you can leave this setting unchanged.

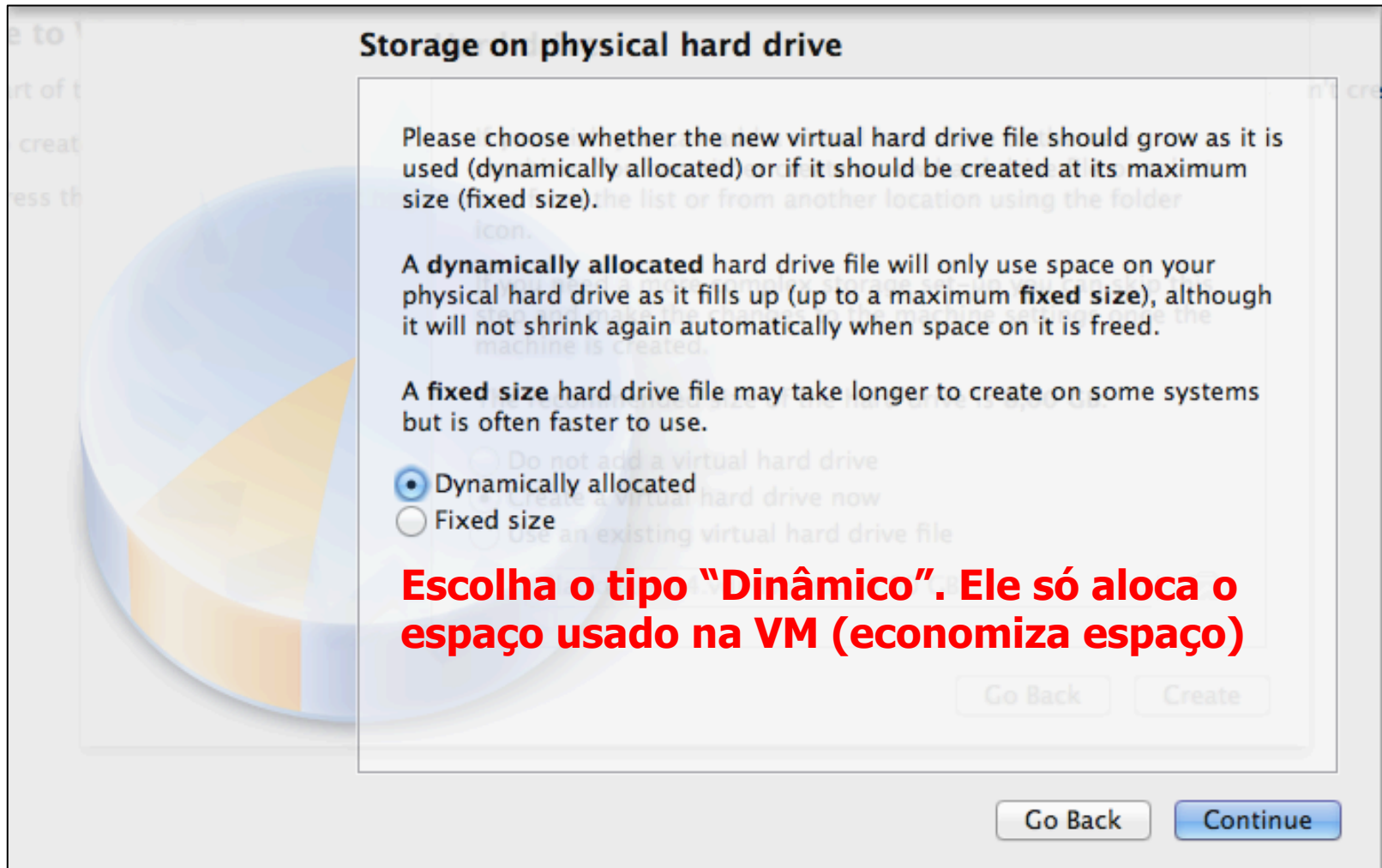
- VDI (VirtualBox Disk Image)
- VMDK (Virtual Machine Disk)
- VHD (Virtual Hard Disk)
- HDD (Parallels Hard Disk)
- QED (QEMU enhanced disk)
- QCOW (QEMU Copy-On-Write)

Escolha o tipo nativo do virtualBox: VDI

Go Back Create

Hide Description Go Back Continue

Especificando a forma do armazenamento do HD



Storage on physical hard drive

Please choose whether the new virtual hard drive file should grow as it is used (dynamically allocated) or if it should be created at its maximum size (fixed size).

A **dynamically allocated** hard drive file will only use space on your physical hard drive as it fills up (up to a maximum **fixed size**), although it will not shrink again automatically when space on it is freed.

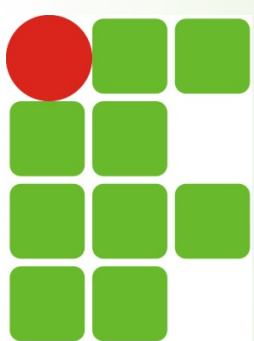
A **fixed size** hard drive file may take longer to create on some systems but is often faster to use.

Dynamically allocated
 Fixed size

Escolha o tipo "Dinâmico". Ele só aloca o espaço usado na VM (economiza espaço)

Go Back Create


Go Back Continue



Especifique o tamanho do HD e sua localização

File location and size

Please type the name of the new virtual hard drive file into the box below or click on the folder icon to select a different folder to create the file in.

Debian 7 

Select the size of the virtual hard drive in megabytes. This size is the limit on the amount of file data that a virtual machine will be able to store on the hard drive.

The recommended size of the hard drive is 8,00 GB.

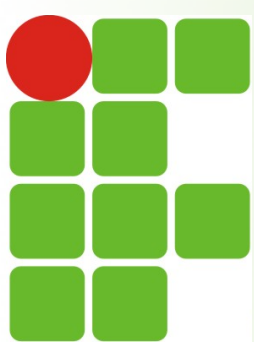
4,00 MB 2,00 TB 40,00 GB

Do not add a virtual hard drive
 Create a virtual hard drive now
 Use an existing virtual hard drive file

Go Back Create

Go Back Create

Deixe o local padrão. No tamanho, coloque 40Gb



Máquina virtual criada !

The screenshot displays the Oracle VM VirtualBox Manager interface. The main window title is "Oracle VM VirtualBox Manager". The top menu bar includes "VirtualBox", "File", "Machine", "Window", and "Help". The top status bar shows system icons, the time "sáb 13 de set 14:20", and the user name "Jefferson Silva".

The interface is divided into several sections:

- Left Panel:** Shows a list of virtual machines. One machine, "Debian 7", is selected and its status is "Powered Off".
- Toolbar:** Contains icons for "New", "Settings", "Start", and "Discard".
- Details Panel (Right):** Shows the configuration for the selected "Debian 7" machine. It includes a "Preview" window showing the Debian 7 logo.

The configuration details for the "Debian 7" machine are as follows:

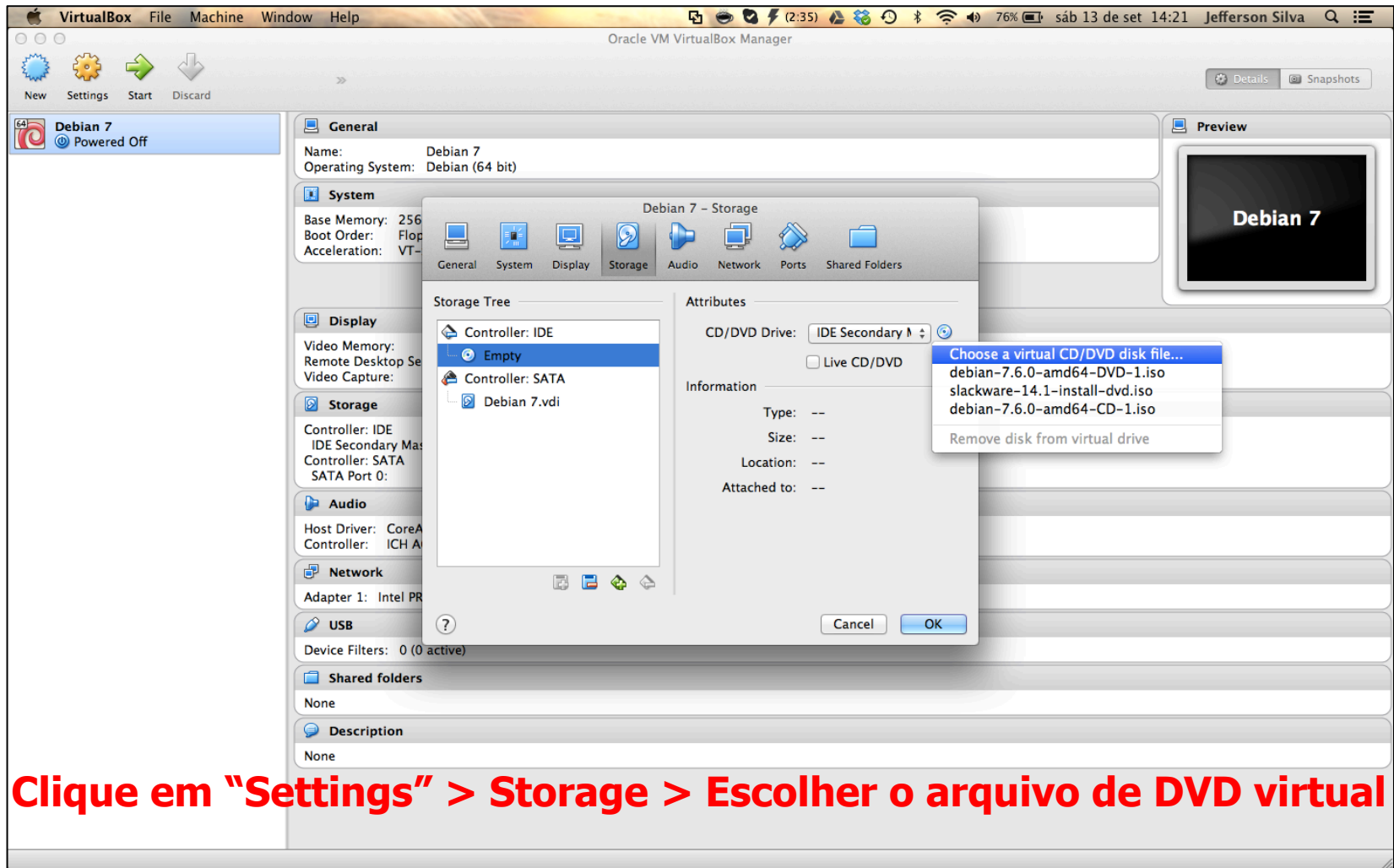
- General:** Name: Debian 7, Operating System: Debian (64 bit)
- System:** Base Memory: 256 MB, Boot Order: Floppy, CD/DVD, Hard Disk, Acceleration: VT-x/AMD-V, Nested Paging
- Display:** Video Memory: 12 MB, Remote Desktop Server: Disabled, Video Capture: Disabled
- Storage:** Controller: IDE, IDE Secondary Master: [CD/DVD] Empty, Controller: SATA, SATA Port 0: Debian 7.vdi (Normal, 40,00 GB)
- Audio:** Host Driver: CoreAudio, Controller: ICH AC97
- Network:** Adapter 1: Intel PRO/1000 MT Desktop (NAT)
- USB:** Device Filters: 0 (0 active)
- Shared folders:** None
- Description:** None

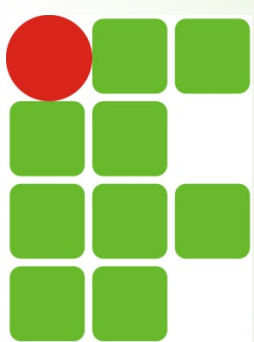
Desabilitando o áudio (afinal, é um servidor)



Basta desmarcar a opção "Enable Audio" e clicar em OK

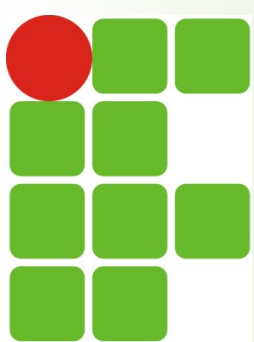
Adicionando o CD para boot



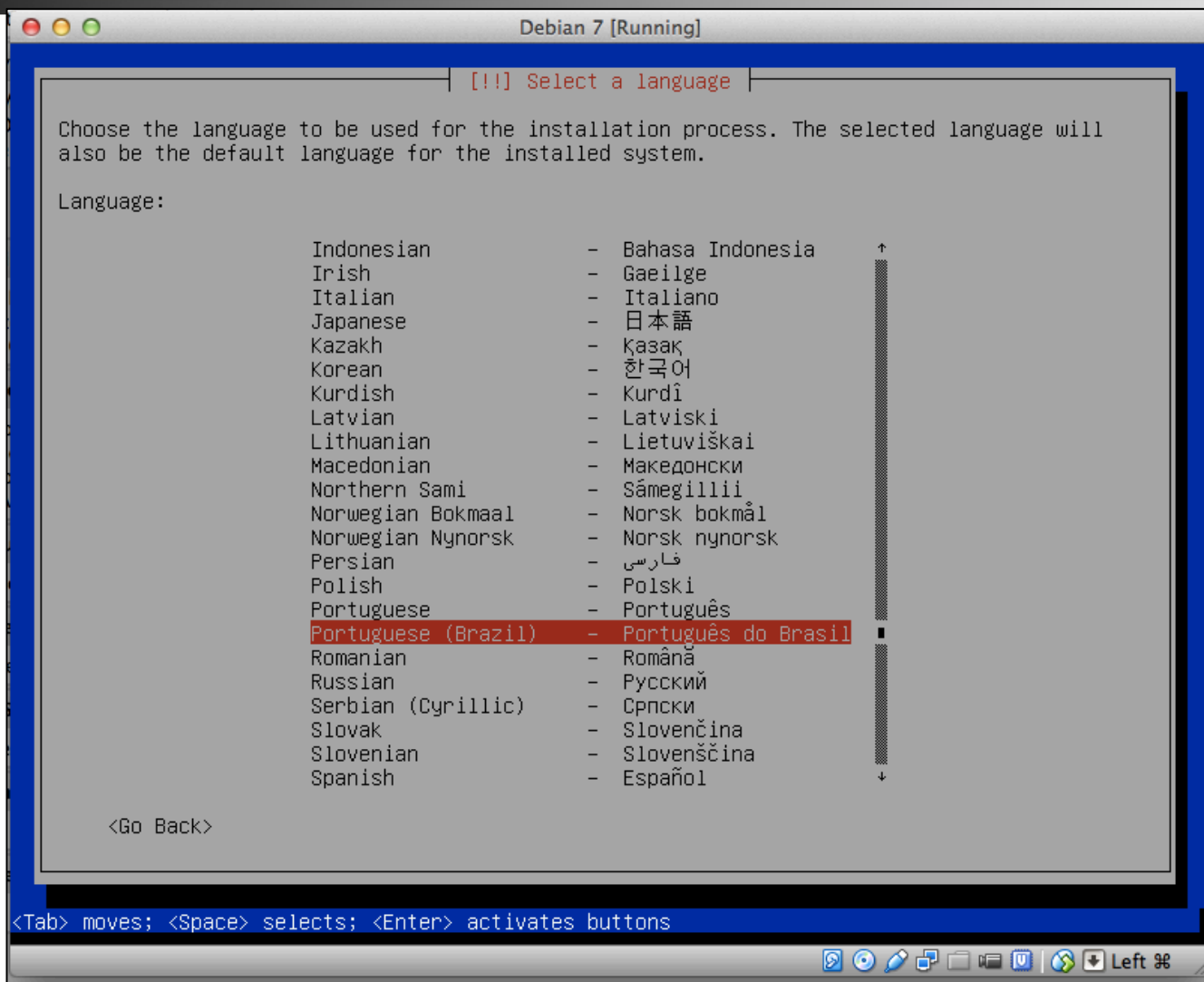


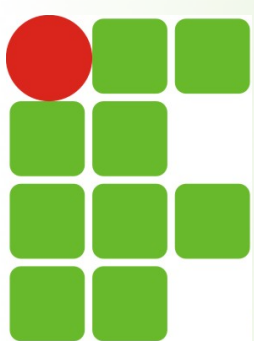
Iniciando o boot da VM pelo DVD



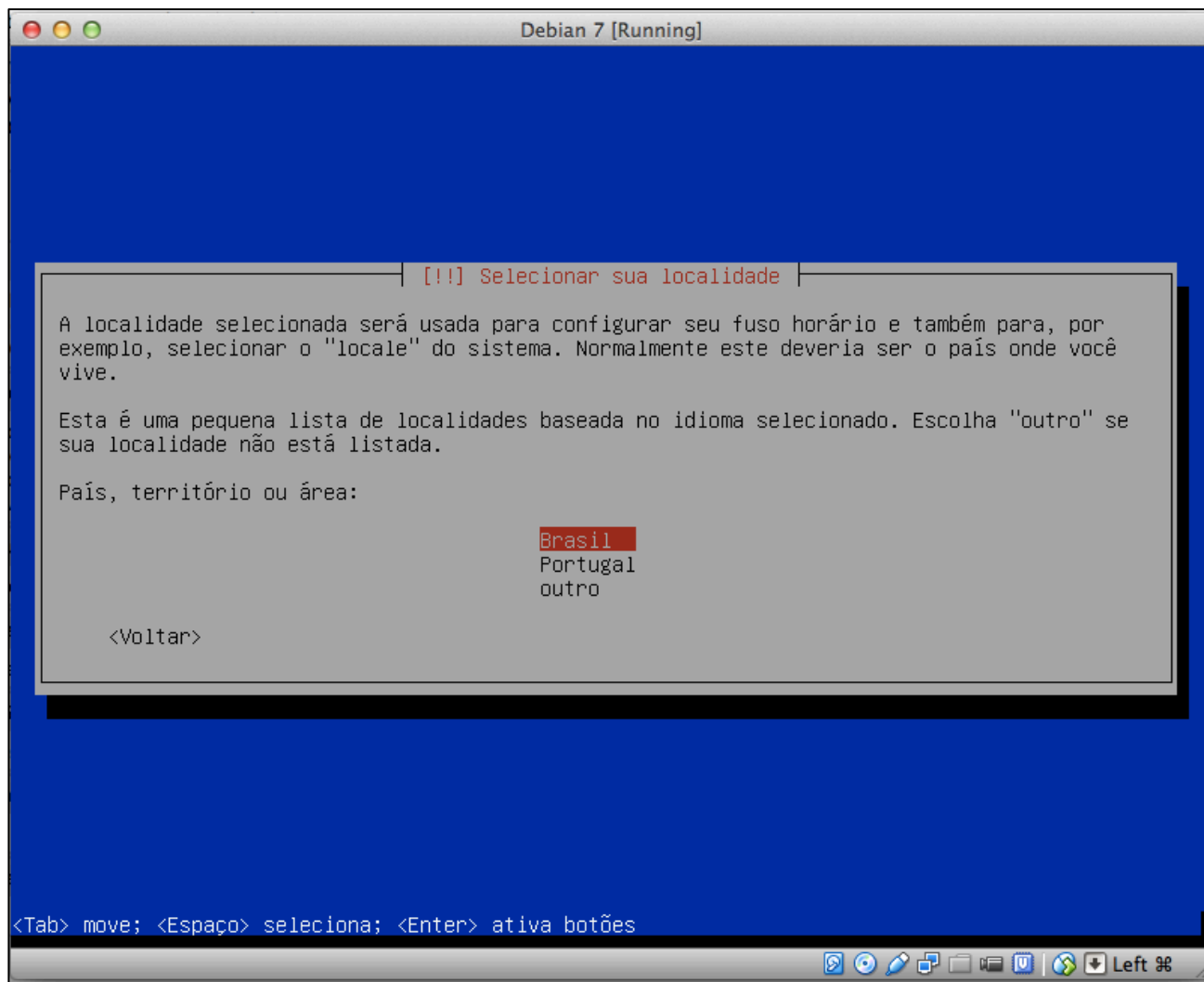


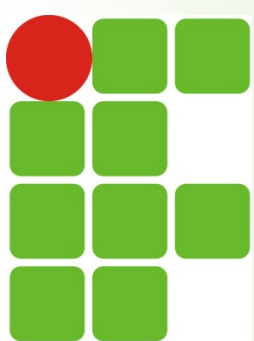
Escolha o idioma do SO



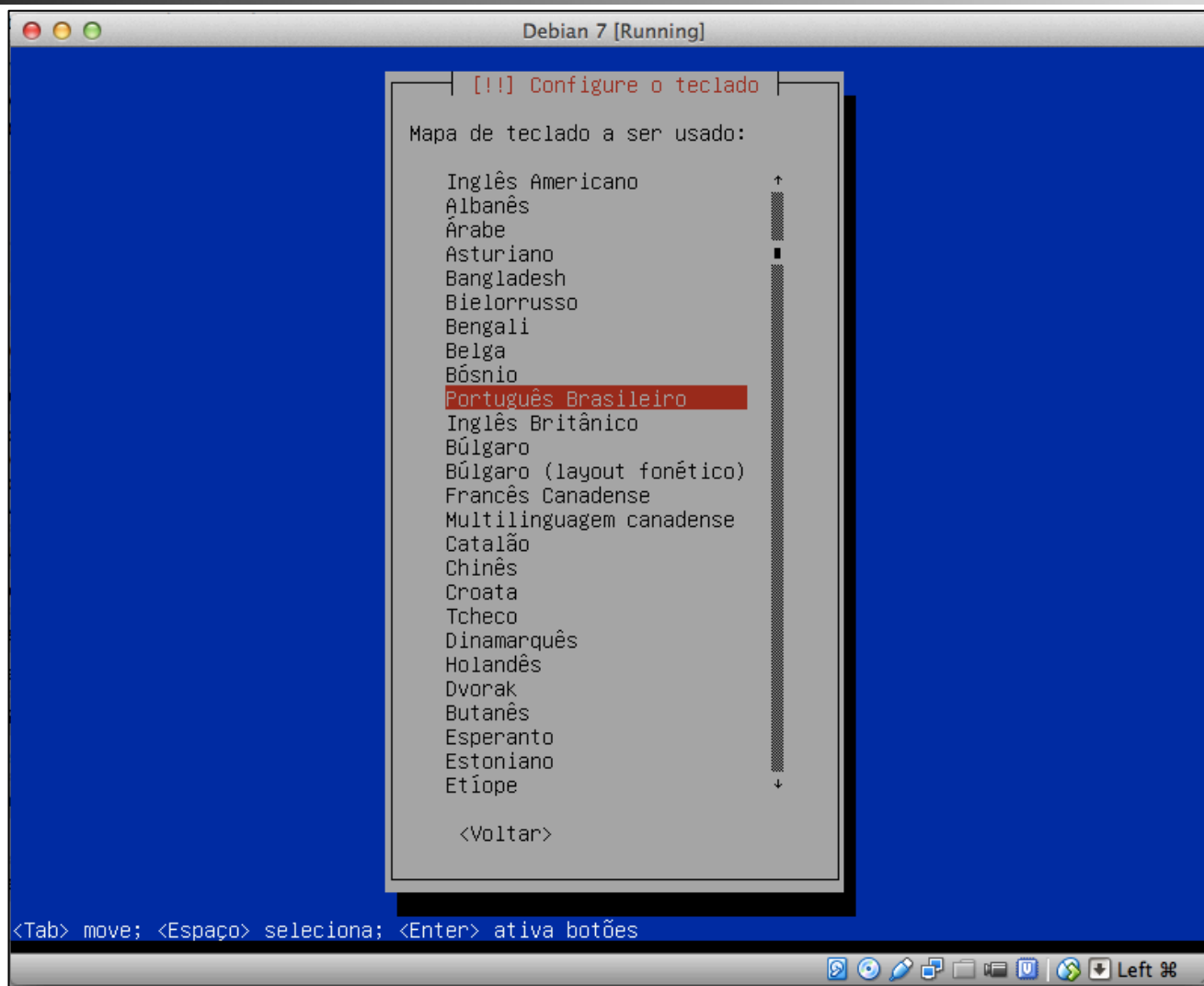


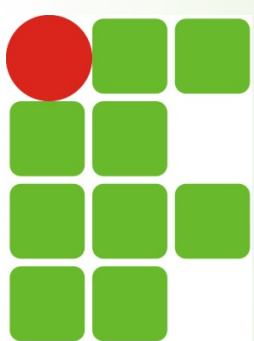
Escolha a sua localidade



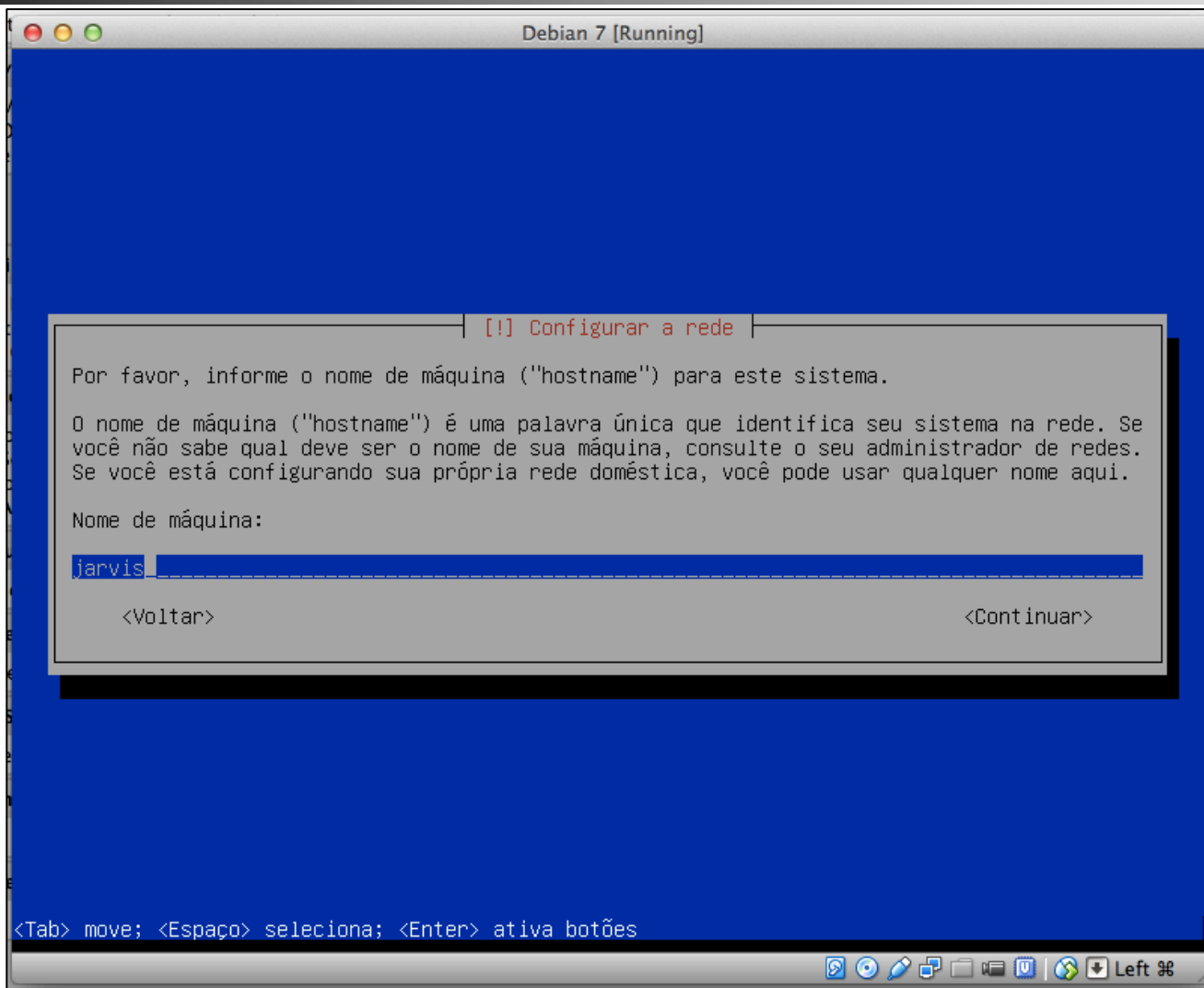


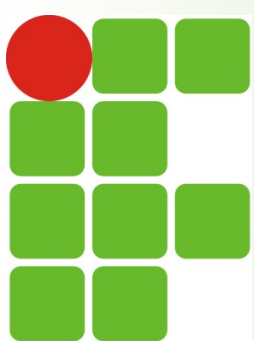
Escolha o padrão do teclado



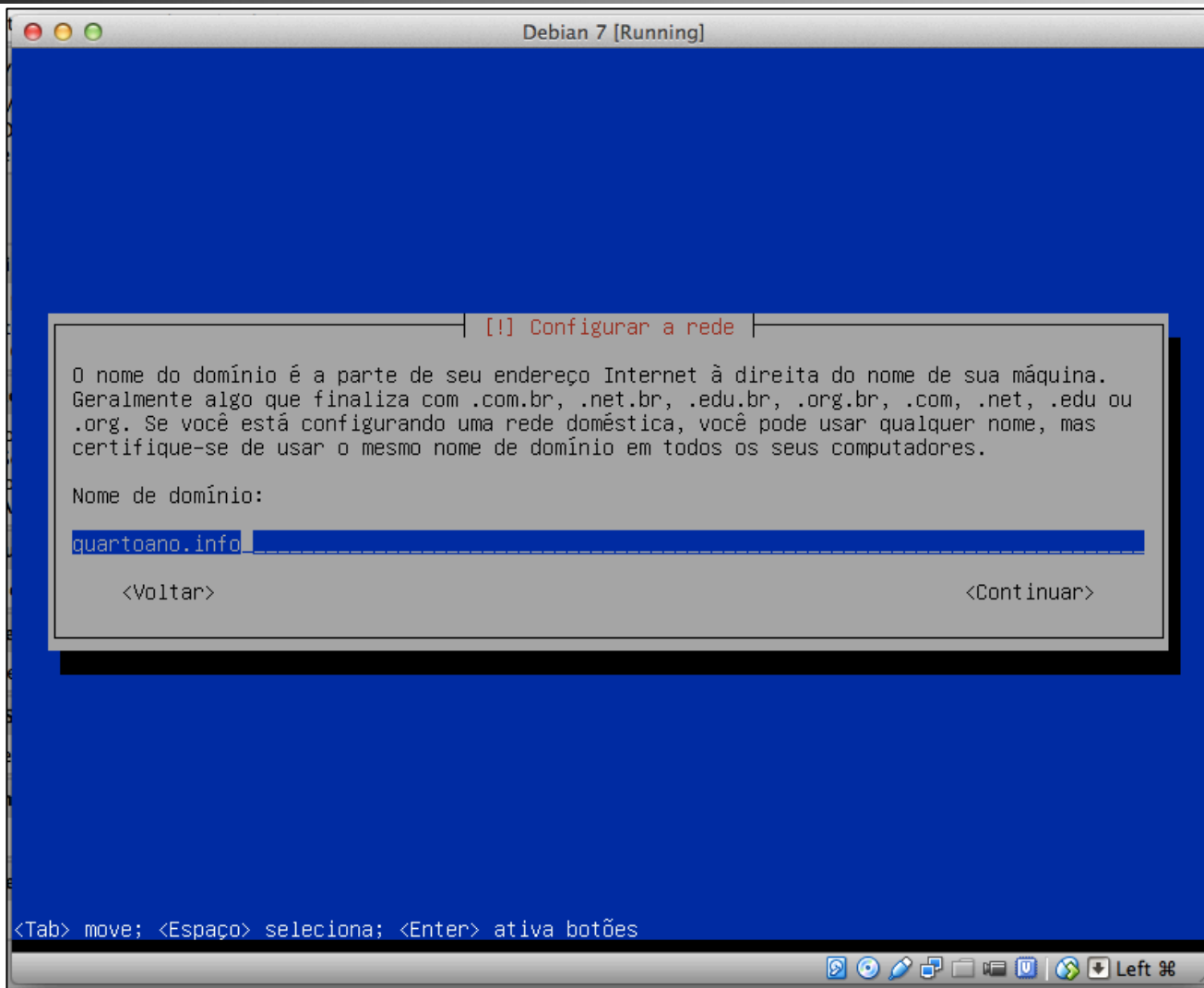


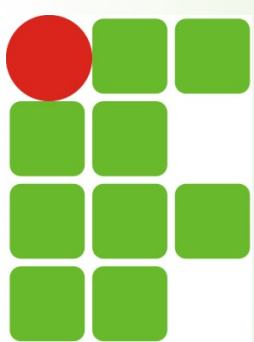
Defina o nome do servidor



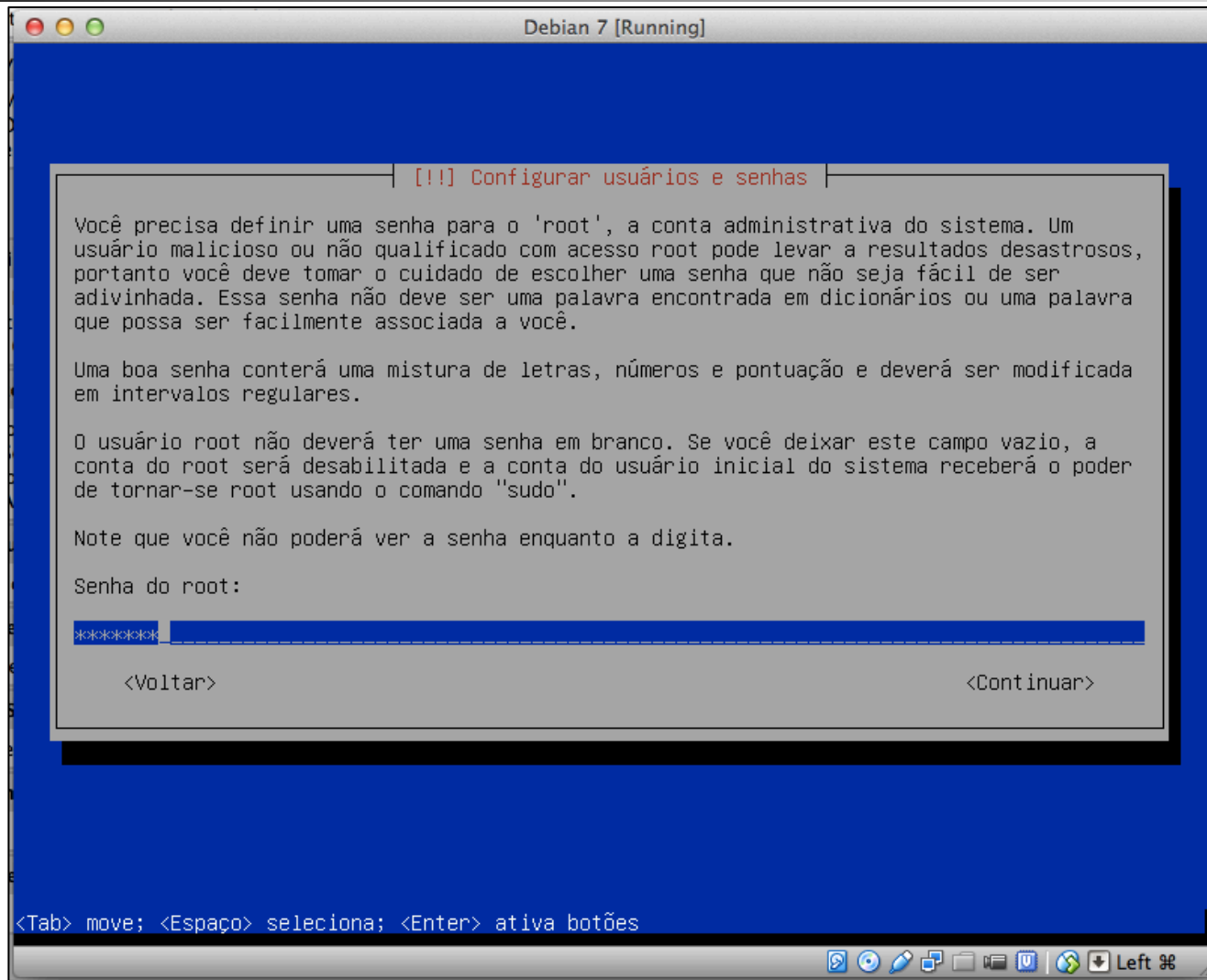


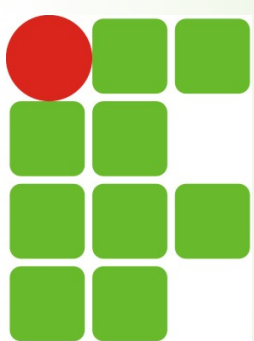
Defina o domínio



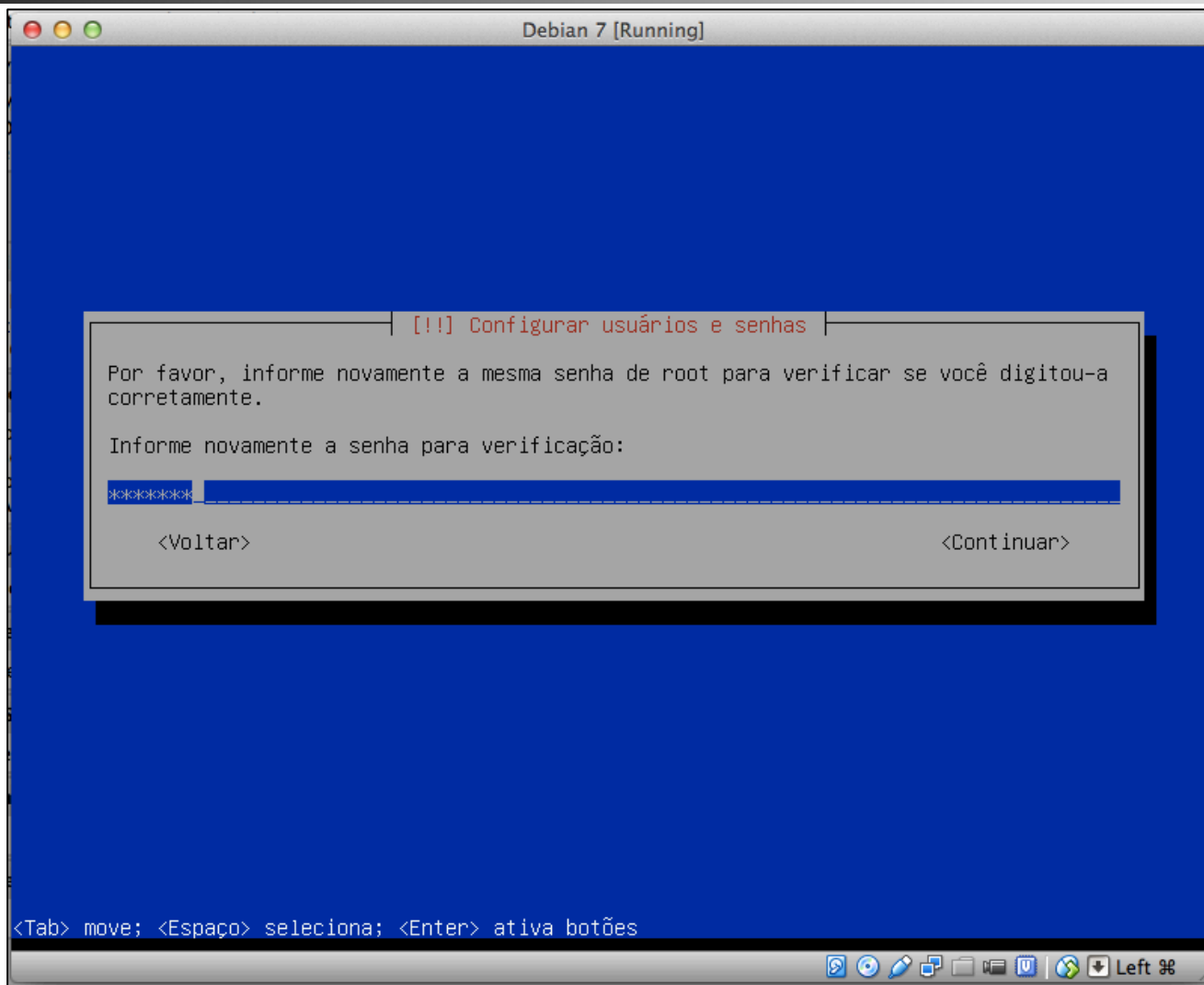


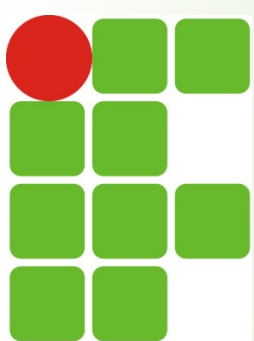
Preencha a senha de root



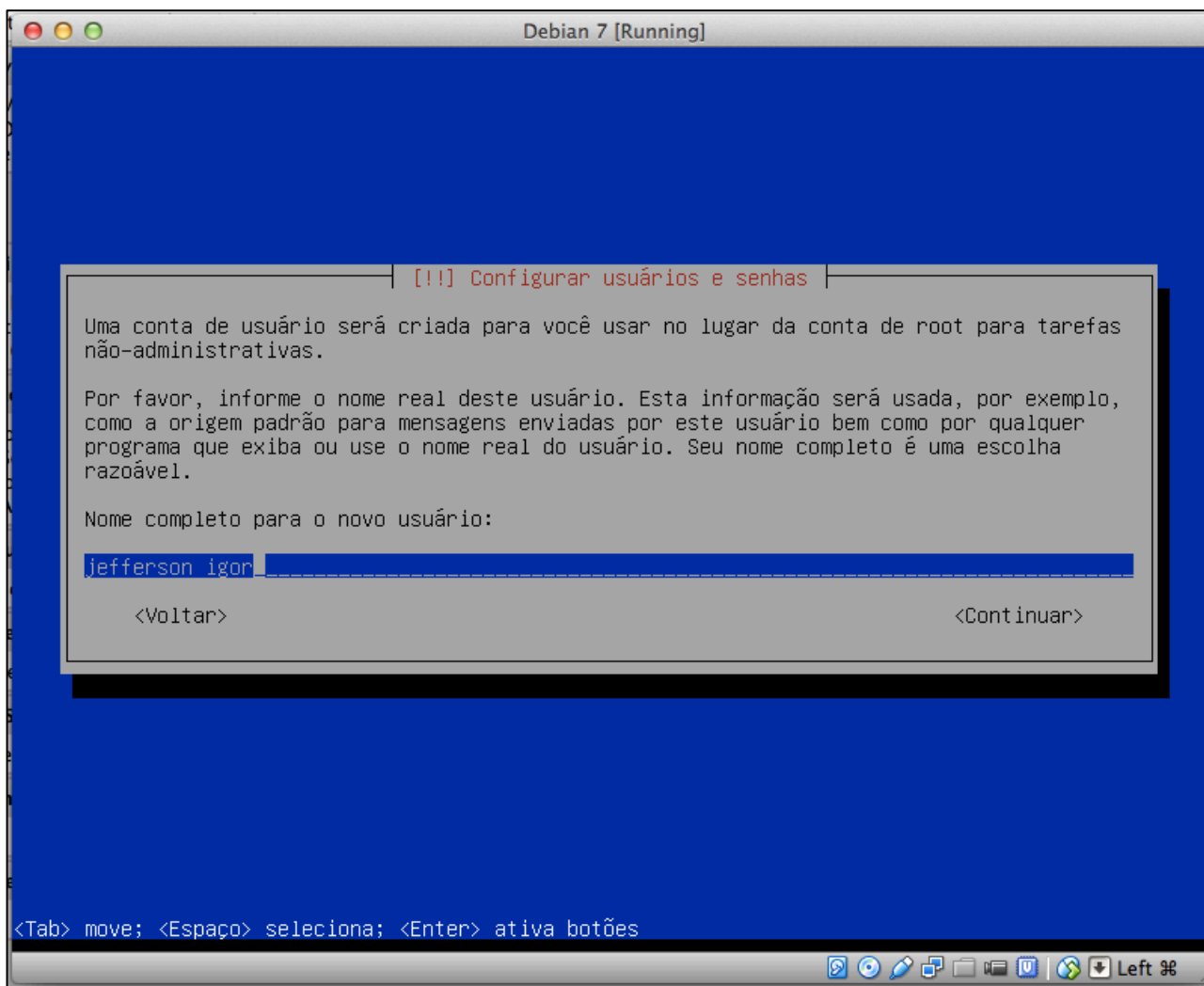


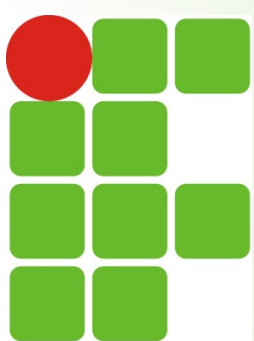
Confirme a senha de root



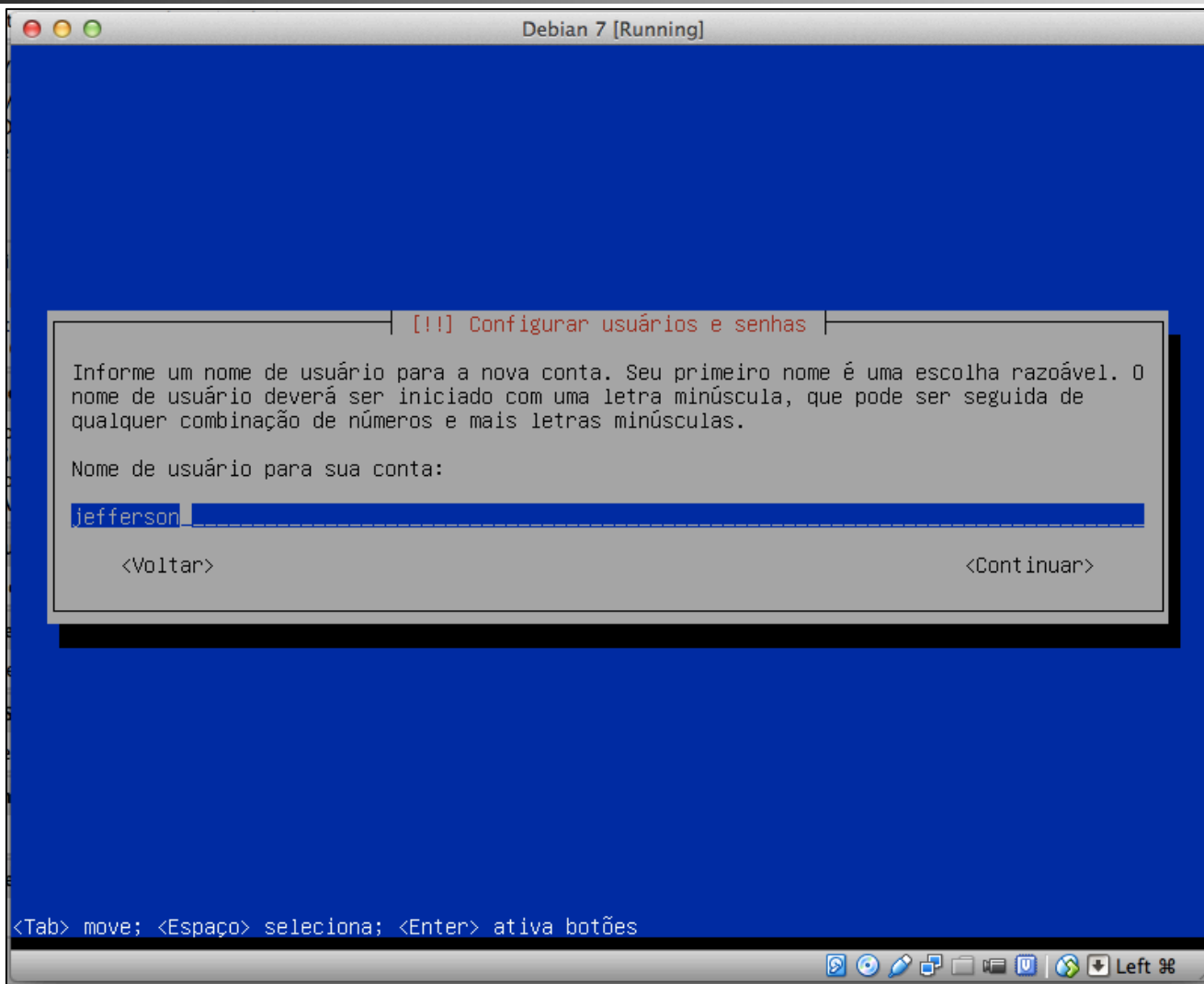


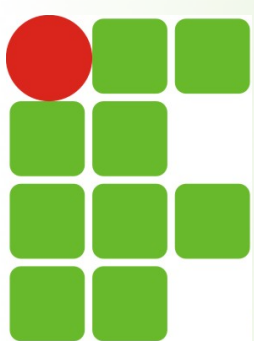
Deve-se criar um novo usuário (limitado)



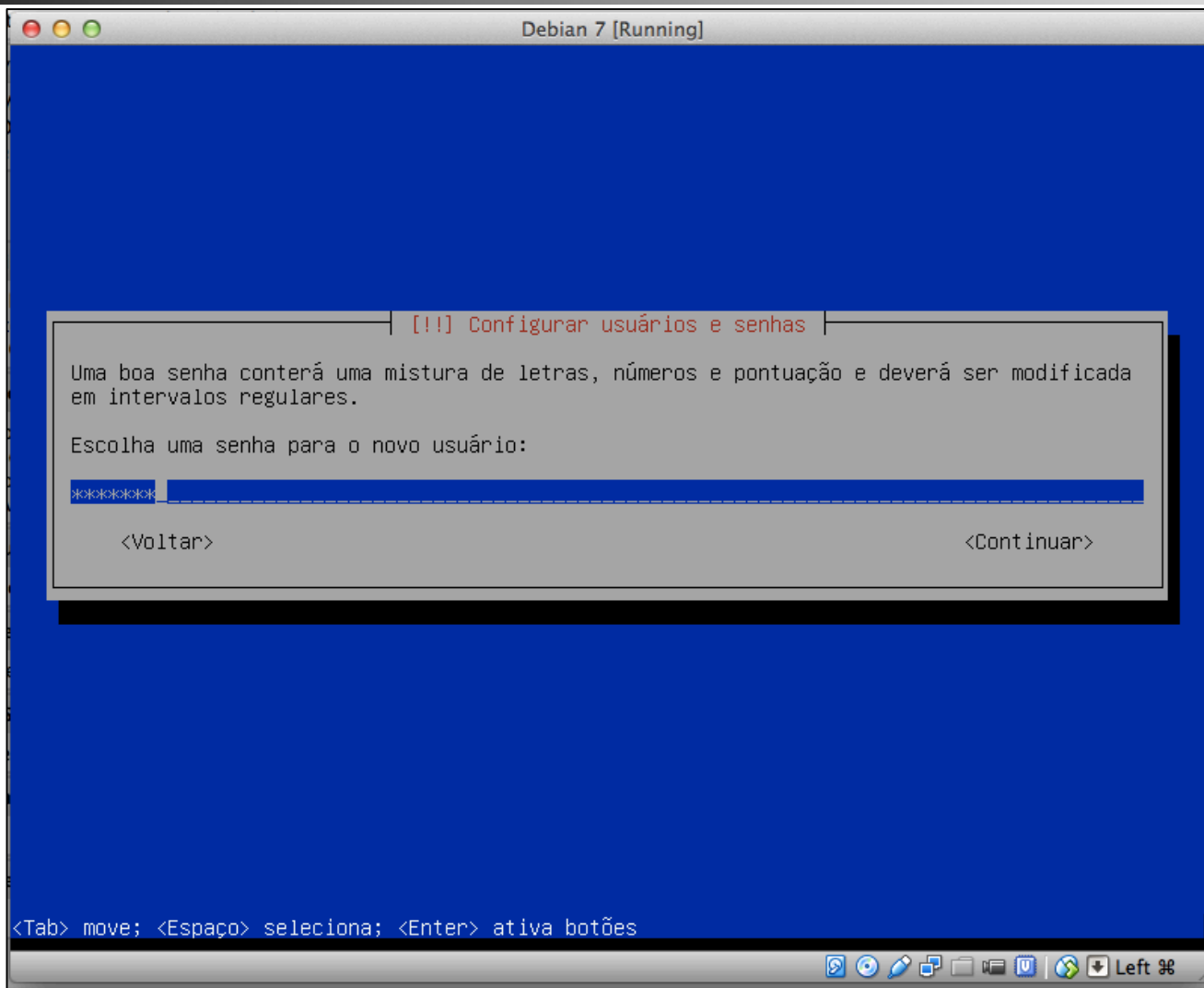


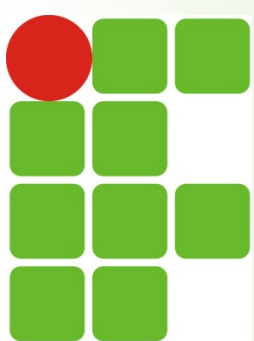
Escolha o nome para *login*



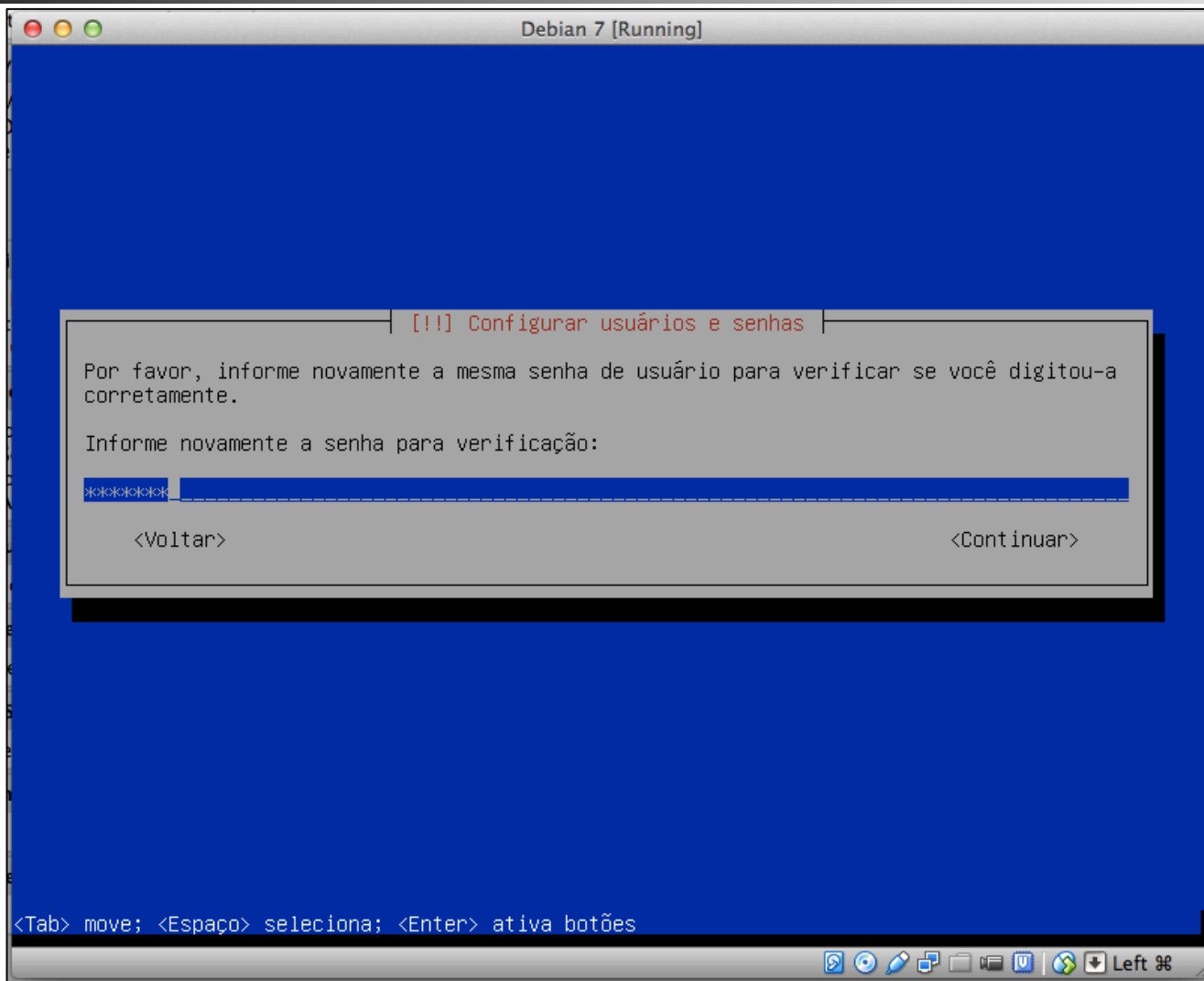


Defina uma senha para esse usuário limitado

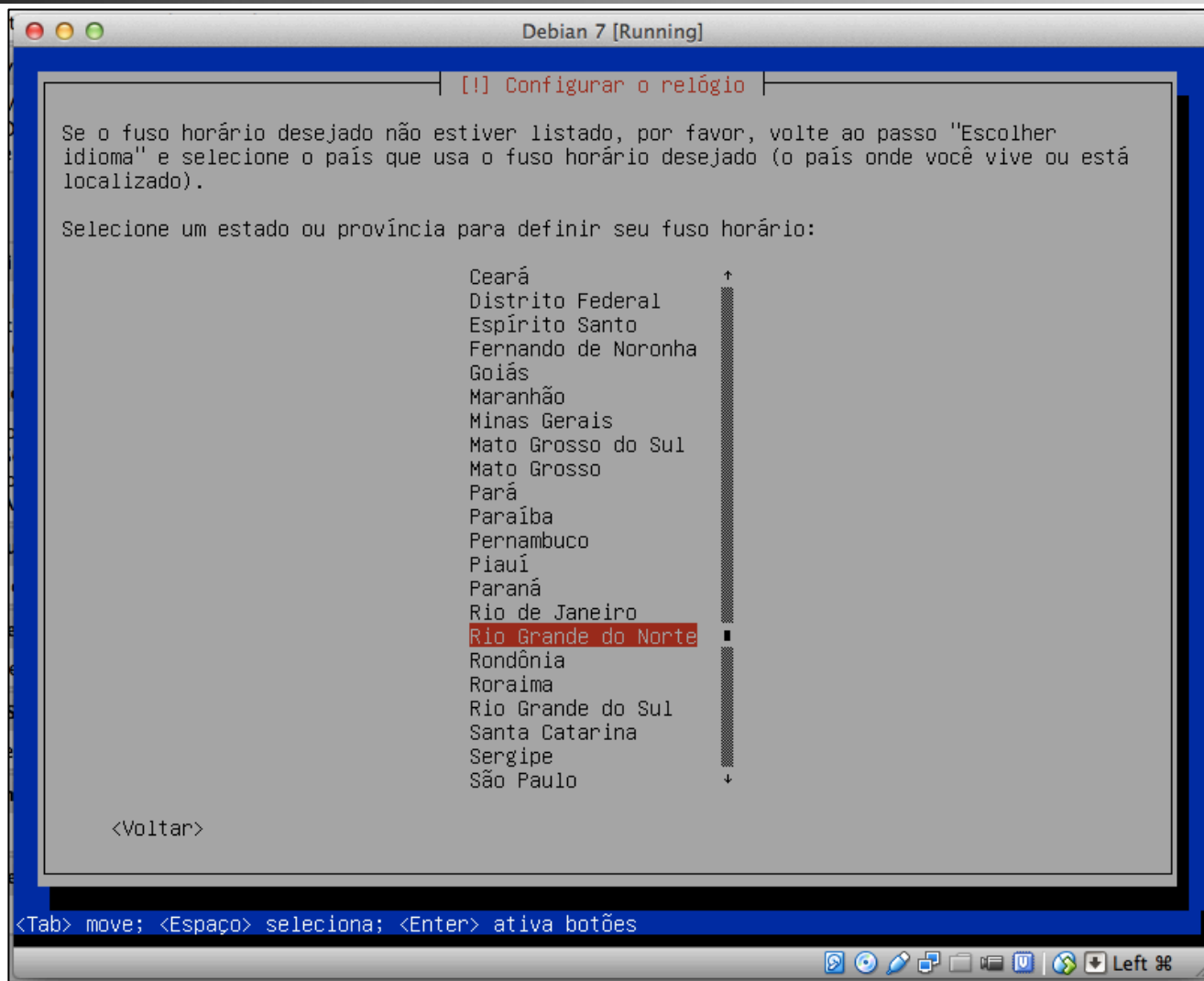


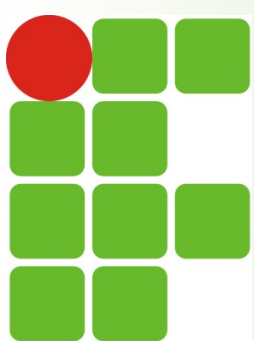


Confirme a senha

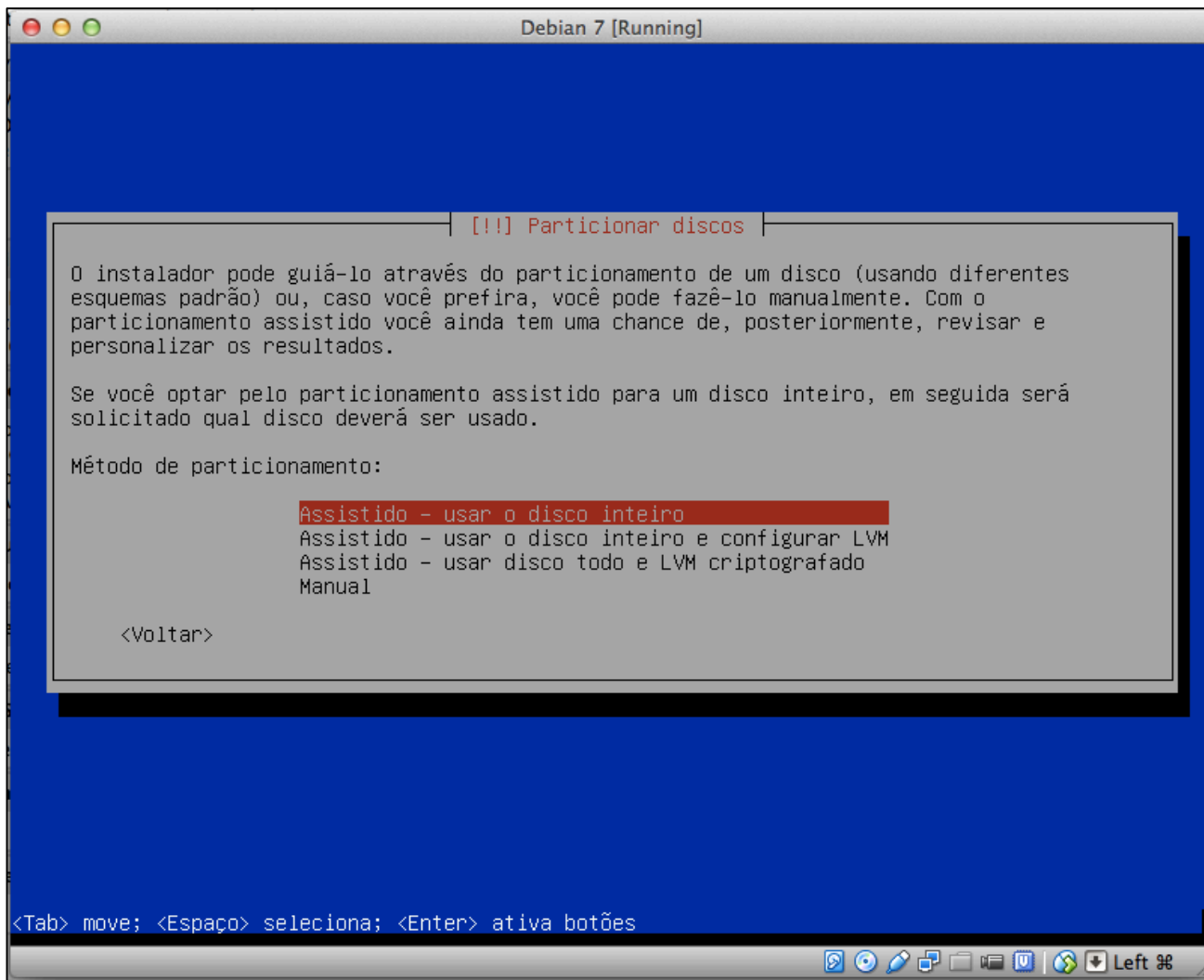


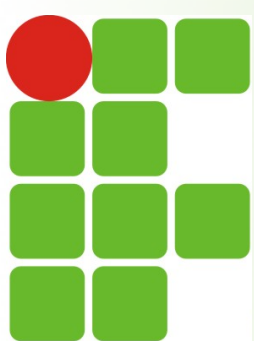
Configure o fuso horário





Escolha o particionamento assistido





Escolha o HD a ser particionado (nesse caso, há apenas um)

Debian 7 [Running]

[!!] Particionar discos

Note que todos os dados no disco que você selecionar serão apagados, mas não antes que você tenha confirmado que realmente deseja fazer as mudanças.

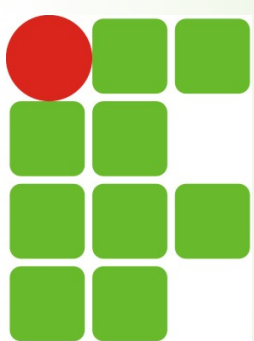
Selecione o disco a ser particionado:

SCSI3 (0,0,0) (sda) - 42.9 GB ATA VBOX HARDDISK

<Voltar>

<Tab> move; <Espaço> seleciona; <Enter> ativa botões

Left %



Escolha como o assistente deve definir as VMs

```
Debian 7 [Running]

[!] Particionar discos

Selecionado para particionamento:

SCSI3 (0,0,0) (sda) - ATA VBOX HARDDISK: 42.9 GB

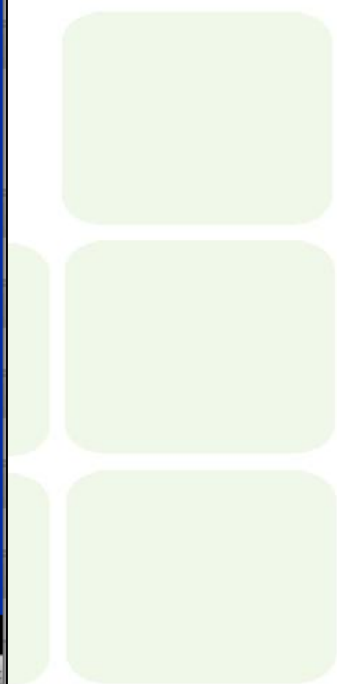
O disco pode ser particionado usando um dentre diversos esquemas diferentes. Se você não
tiver certeza, escolha o primeiro esquema.

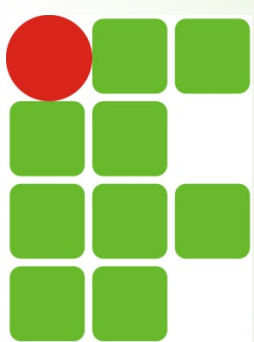
Esquema de particionamento:

  Todos os arquivos em uma partição (para iniciantes)
  Partição /home separada
  Partições /home, /usr, /var e /tmp separadas

<Voltar>

<Tab> move; <Espaço> seleciona; <Enter> ativa botões
```





Confirme a opção do assistente

```
Debian 7 [Running]

[!!!] Particionar discos

Esta é uma visão geral de suas partições e pontos de montagem atualmente configurados.
Selecione uma partição para modificar suas configurações (sistema de arquivos, ponto de
montagem, etc), um espaço livre onde criar partições ou um dispositivo no qual
inicializar uma tabela de partições.

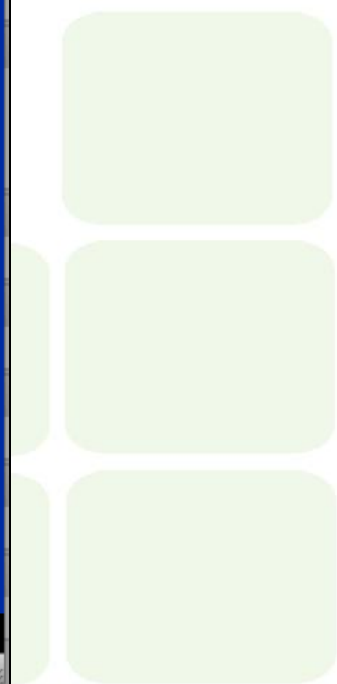
Particionamento assistido
Configurar RAID via software
Configurar o Gerenciador de Volumes Lógicos
Configurar volumes criptografados

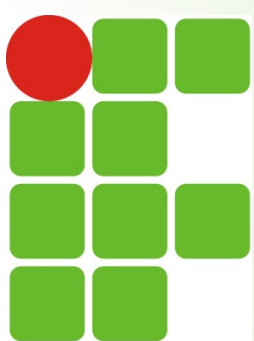
SCSI3 (0,0,0) (sda) - 42.9 GB ATA VBOX HARDDISK
#1 primária 42.4 GB f ext4 /
#5 lógica 532.7 MB f swap swap

Desfazer as mudanças nas partições
Finalizar o particionamento e escrever as mudanças no disco

<Voltar>

<F1> para ajuda; <Tab> move; <Espaço> seleciona; <Enter> ativa botões
```





Confirme novamente o novo particionamento

```
Debian 7 [Running]

[!!!] Particionar discos

Se você continuar, as mudanças listadas abaixo serão escritas nos discos. Caso contrário,
você poderá fazer mudanças adicionais manualmente.

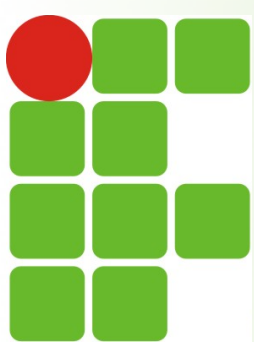
As tabelas de partição dos dispositivos a seguir foram mudadas:
SCSI3 (0,0,0) (sda)

As seguintes partições serão formatadas:
partição #1 de SCSI3 (0,0,0) (sda) como ext4
partição #5 de SCSI3 (0,0,0) (sda) como swap

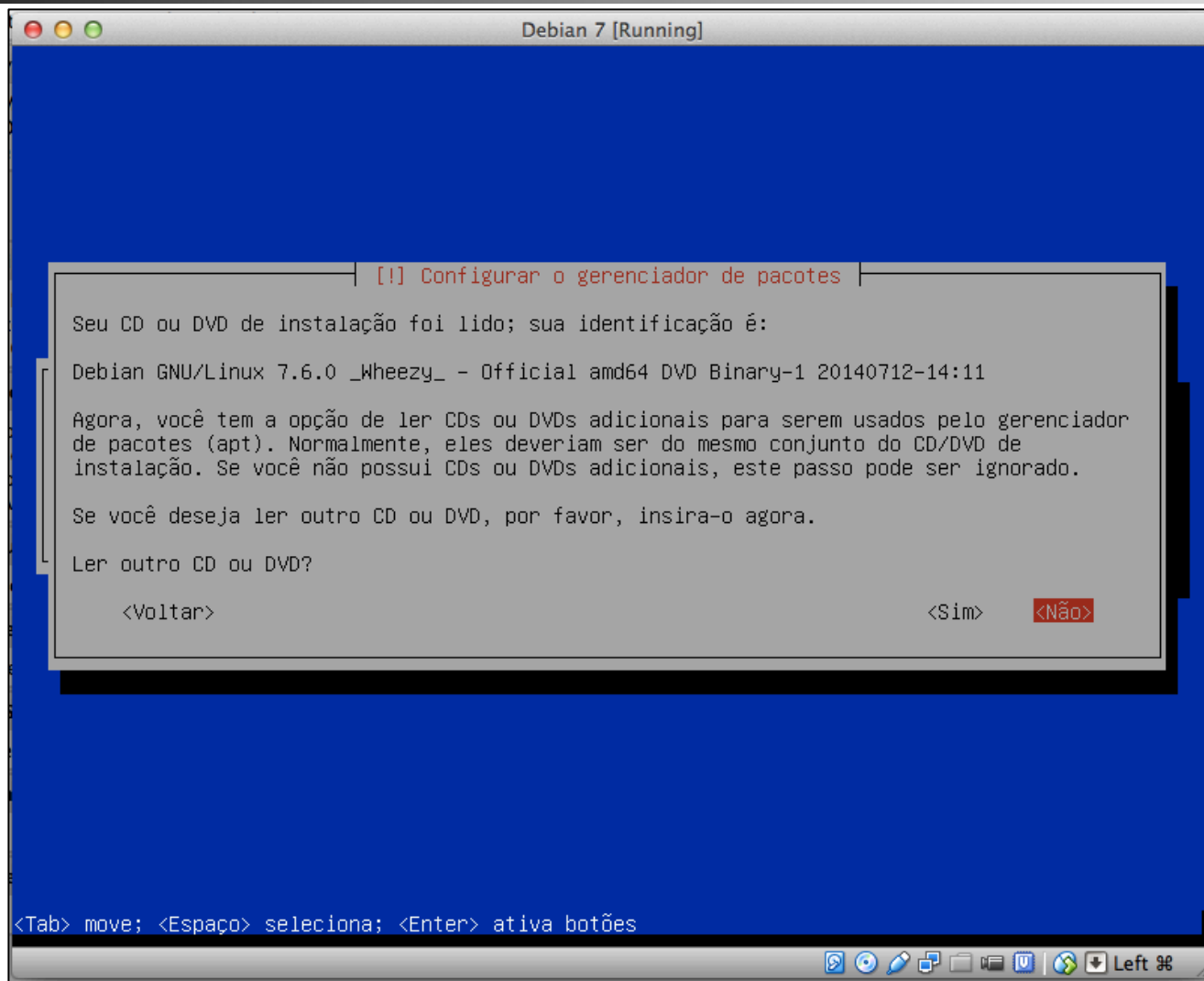
Escrever as mudanças nos discos?

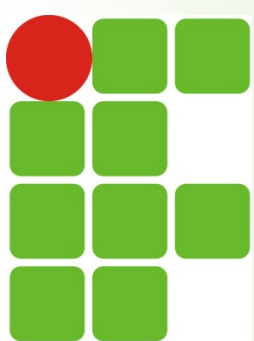
<Sim>                                     <Não>
```

<Tab> move; <Espaço> seleciona; <Enter> ativa botões

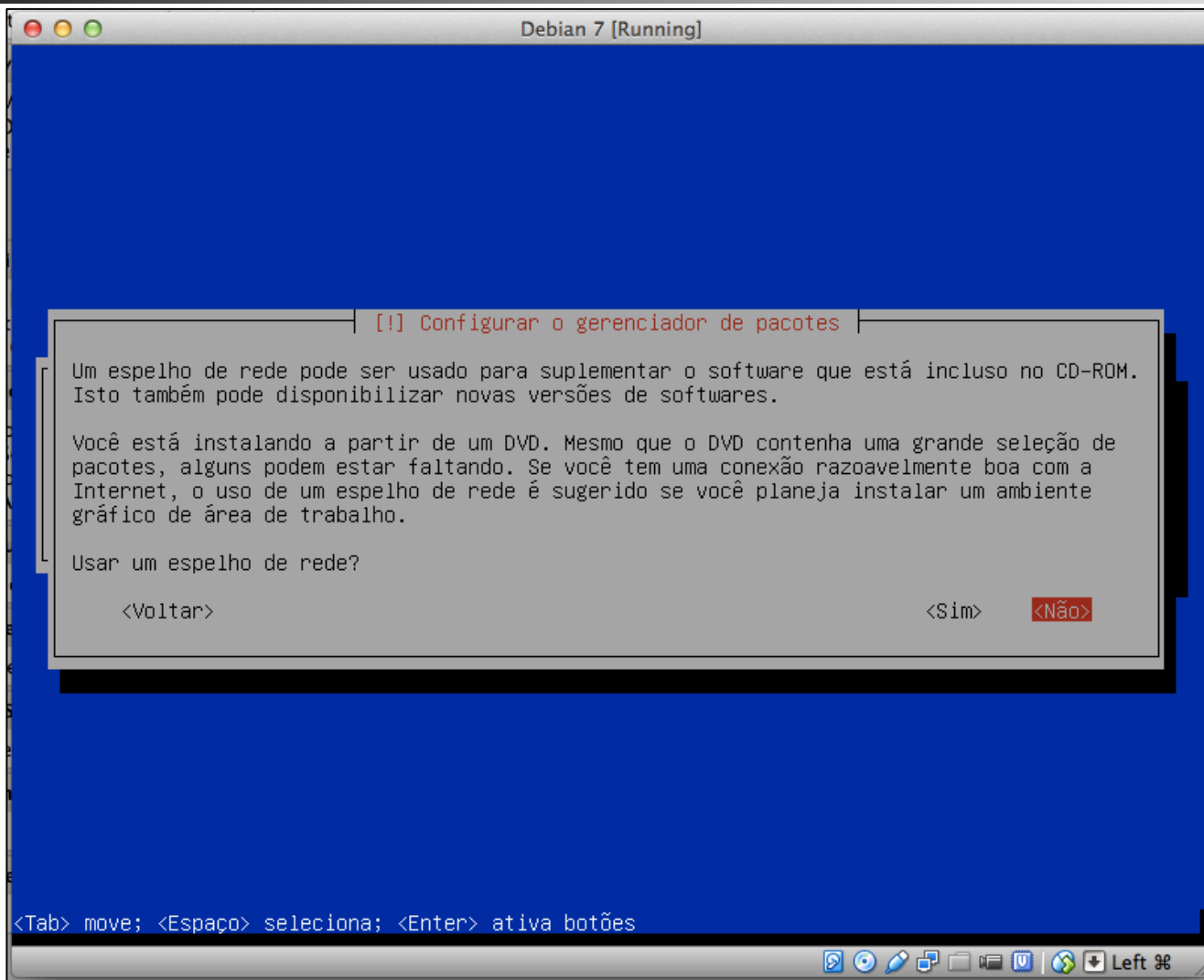


Adicionando novos DVDs como repositórios

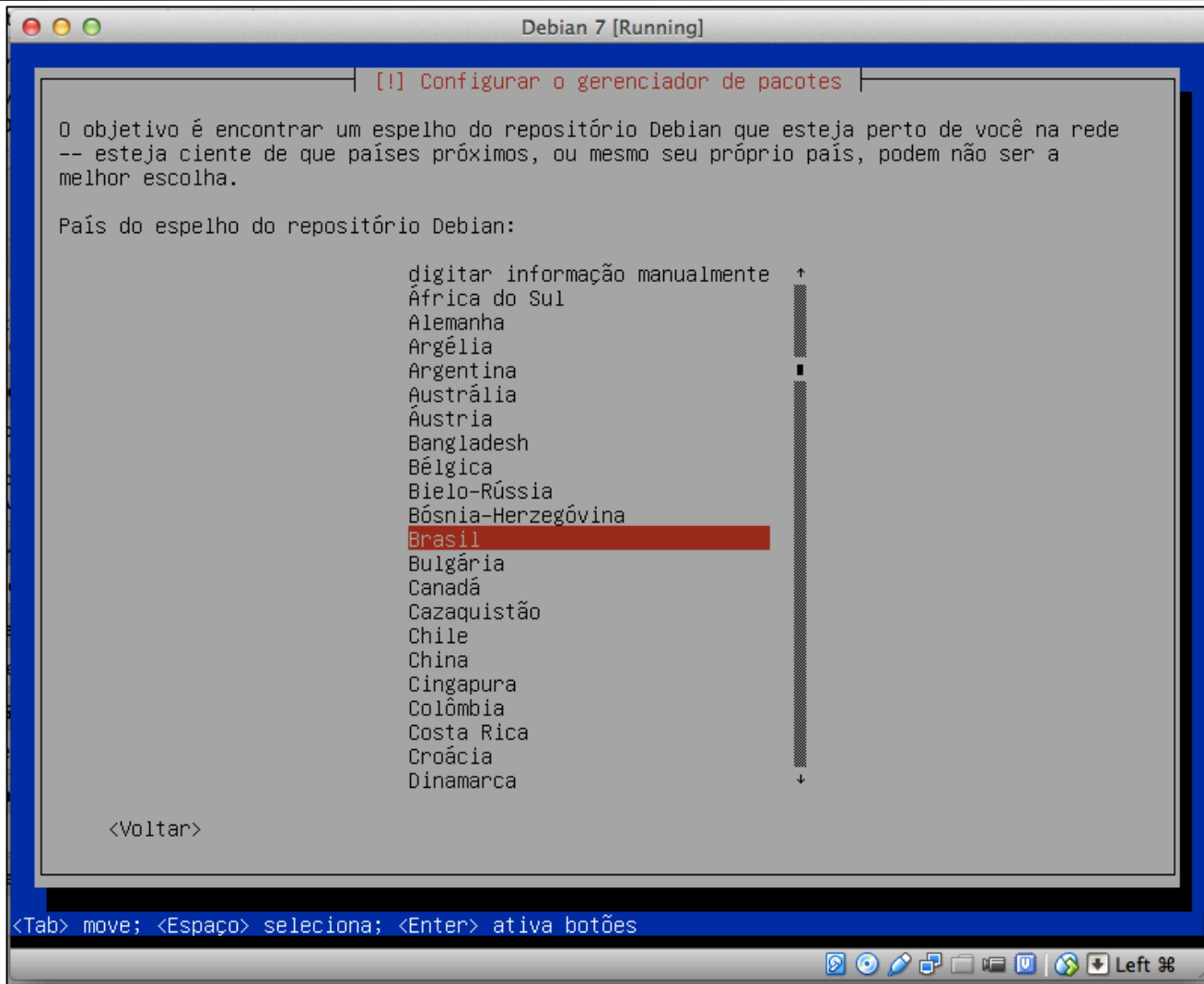


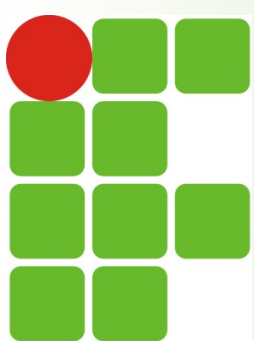


Configurando os repositórios

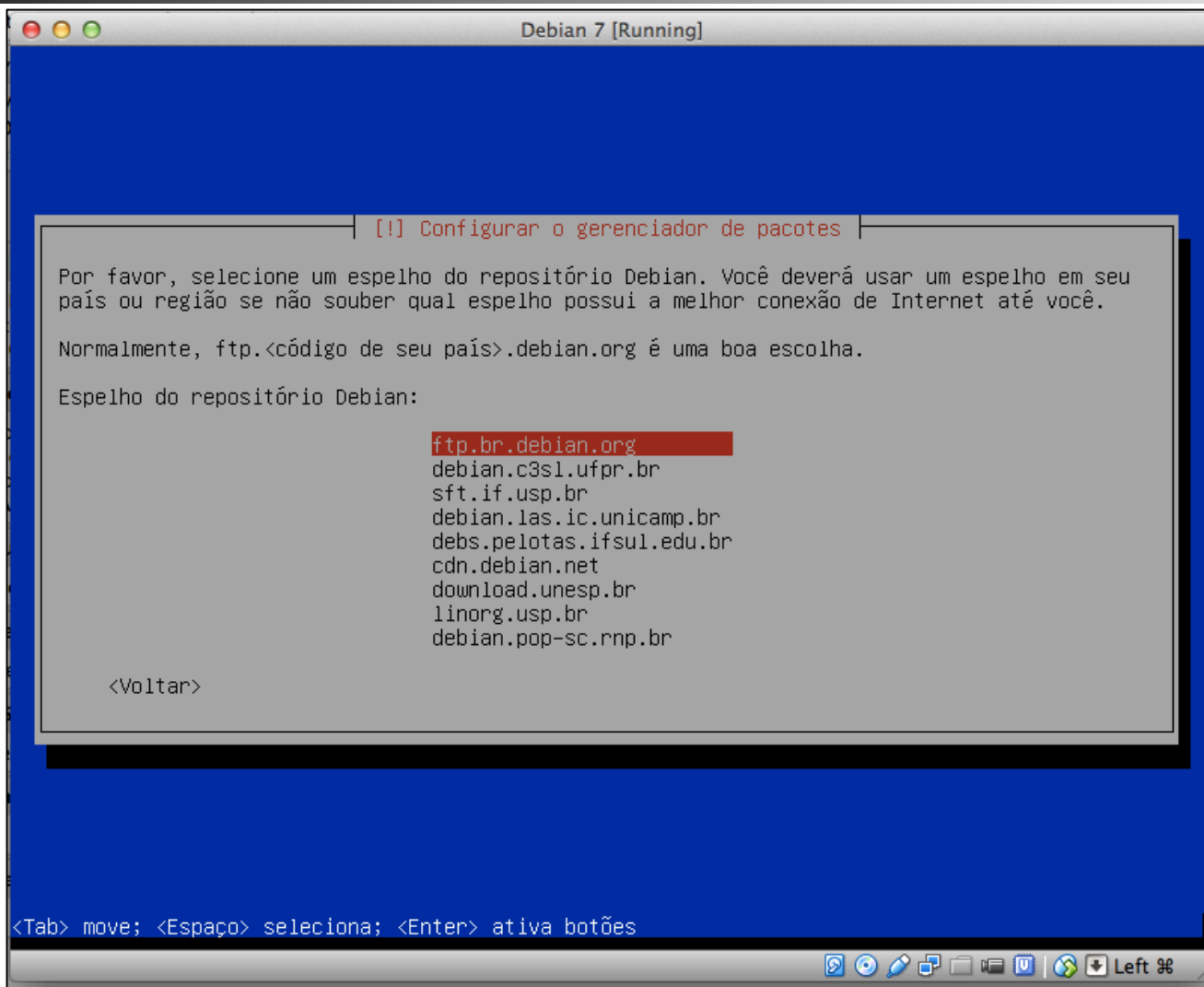


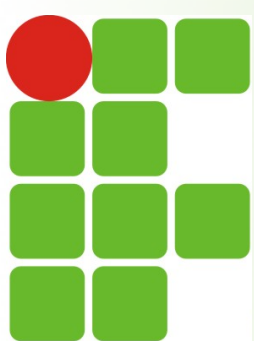
Especifique de onde você quer os repositórios



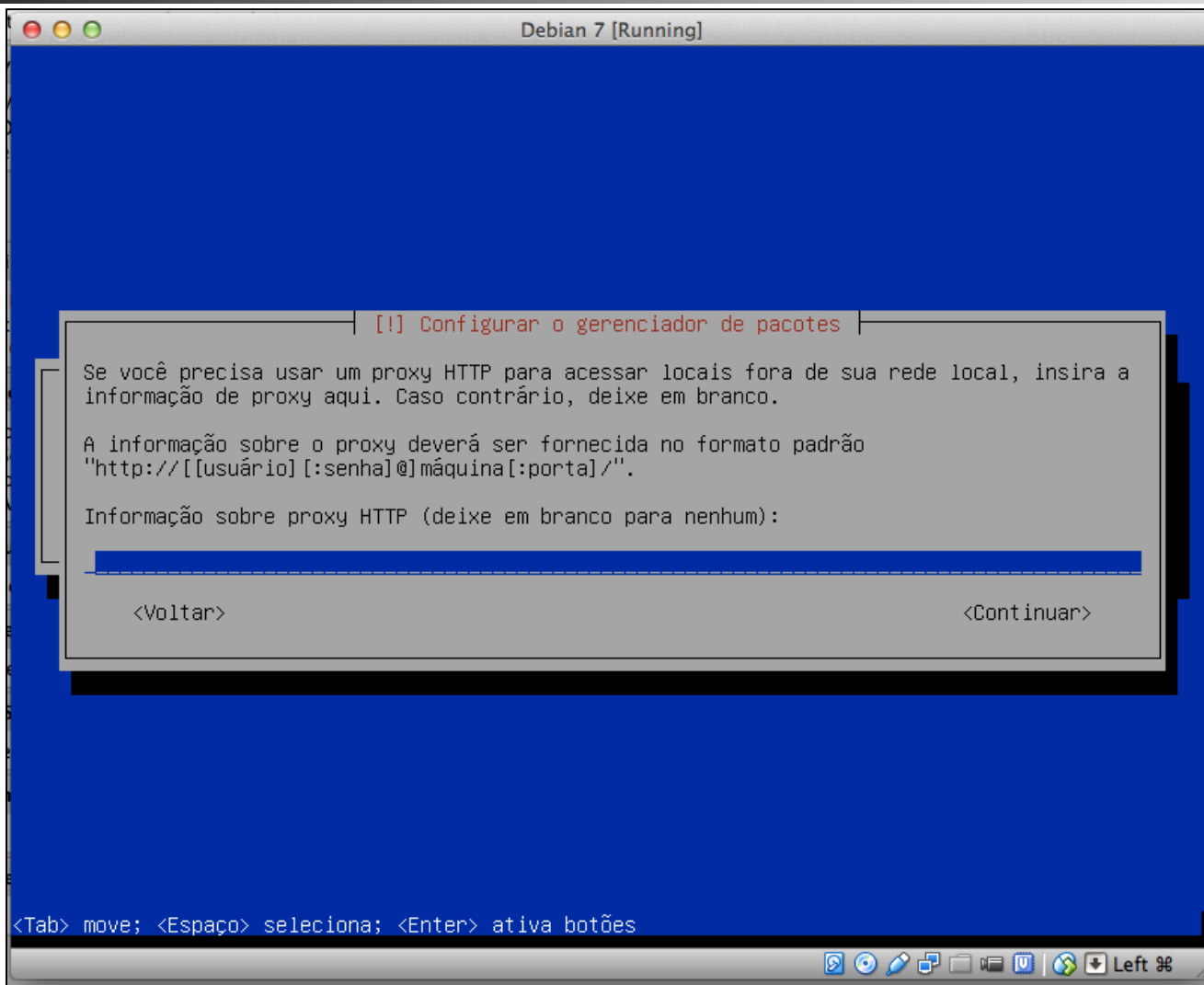


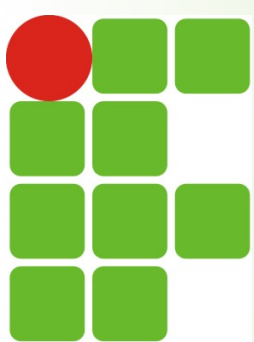
Escolhendo um dos repositórios brasileiros





Caso use *proxy*, o configure agora





Configurando o concurso para utilização de pacotes

```
Debian 7 [Running]

[!] Configurando popularity-contest

O sistema pode fornecer anonimamente aos desenvolvedores da distribuição estatísticas sobre os pacotes mais utilizados em seu sistema. Esta informação influencia decisões como quais pacotes deverão ser colocados no primeiro CD da distribuição.

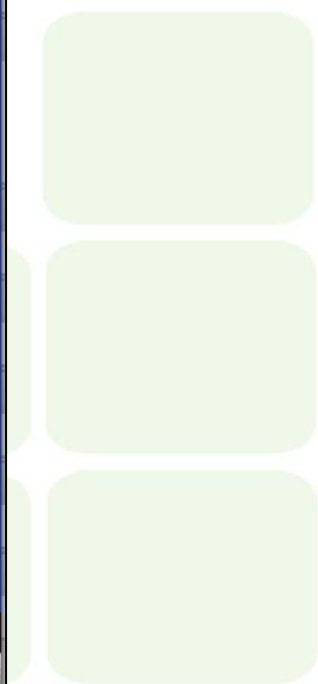
Caso você opte por participar, o script de envio automático será executado uma vez por semana, enviando as estatísticas para os desenvolvedores da distribuição. As estatísticas coletadas podem ser visualizadas em http://popcon.debian.org/.

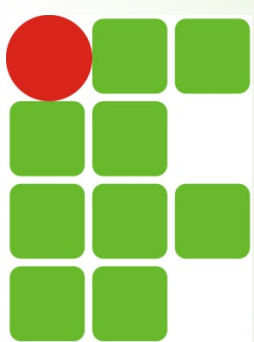
Sua escolha pode ser modificada posteriormente através da execução do comando "dpkg-reconfigure popularity-contest".

Participar do concurso de utilização de pacotes ?

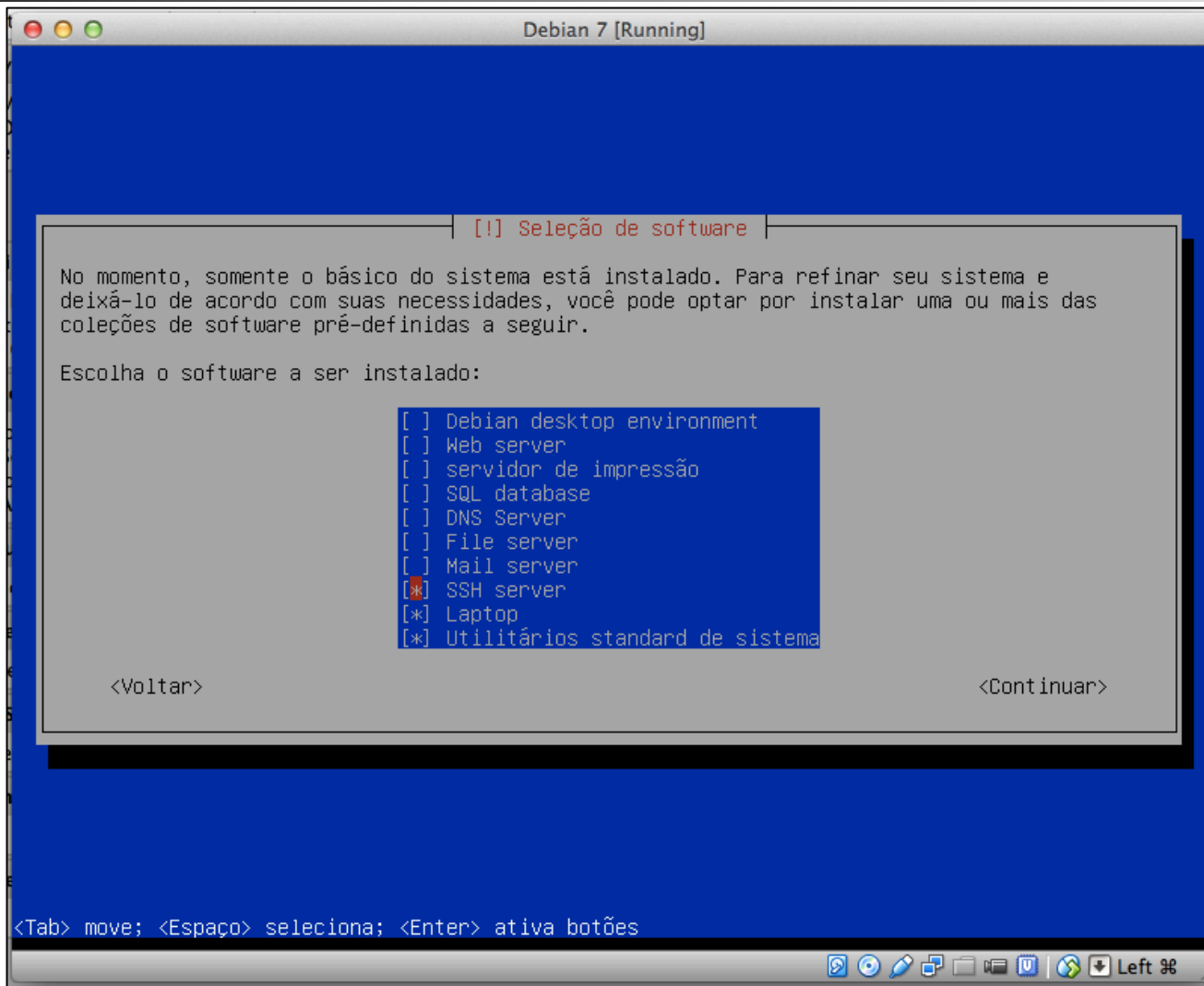
<Voltar>                                     <Sim>  <Não>

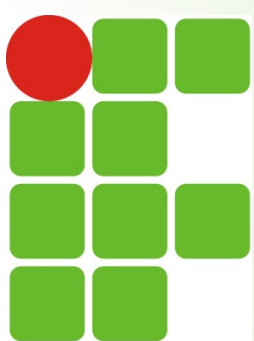
<Tab> move; <Espaço> seleciona; <Enter> ativa botões
```



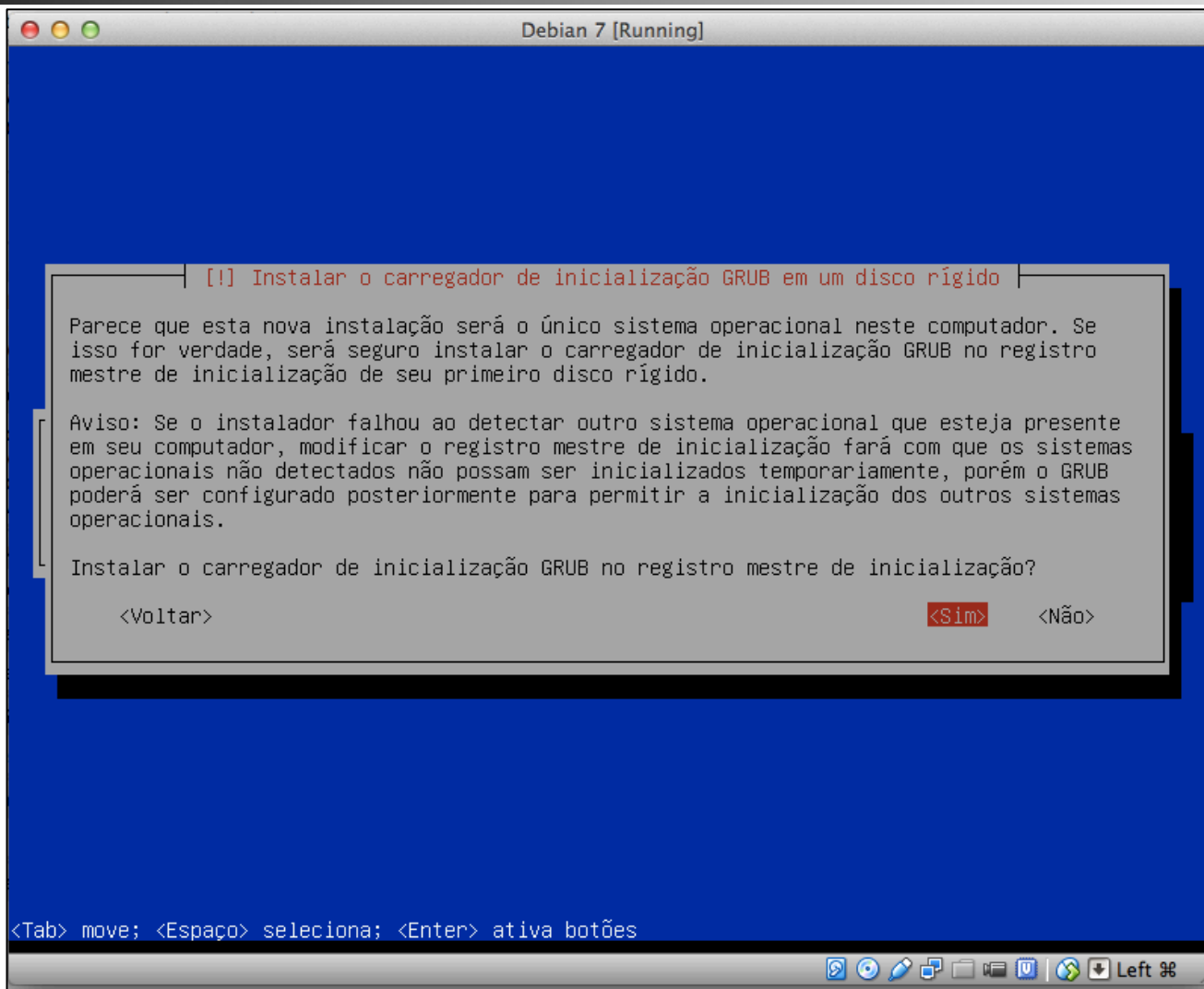


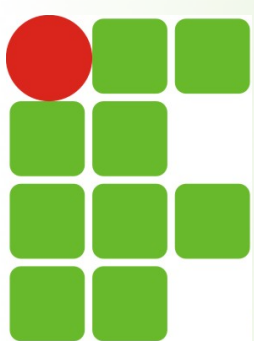
Escolhendo quais recursos serão instalados



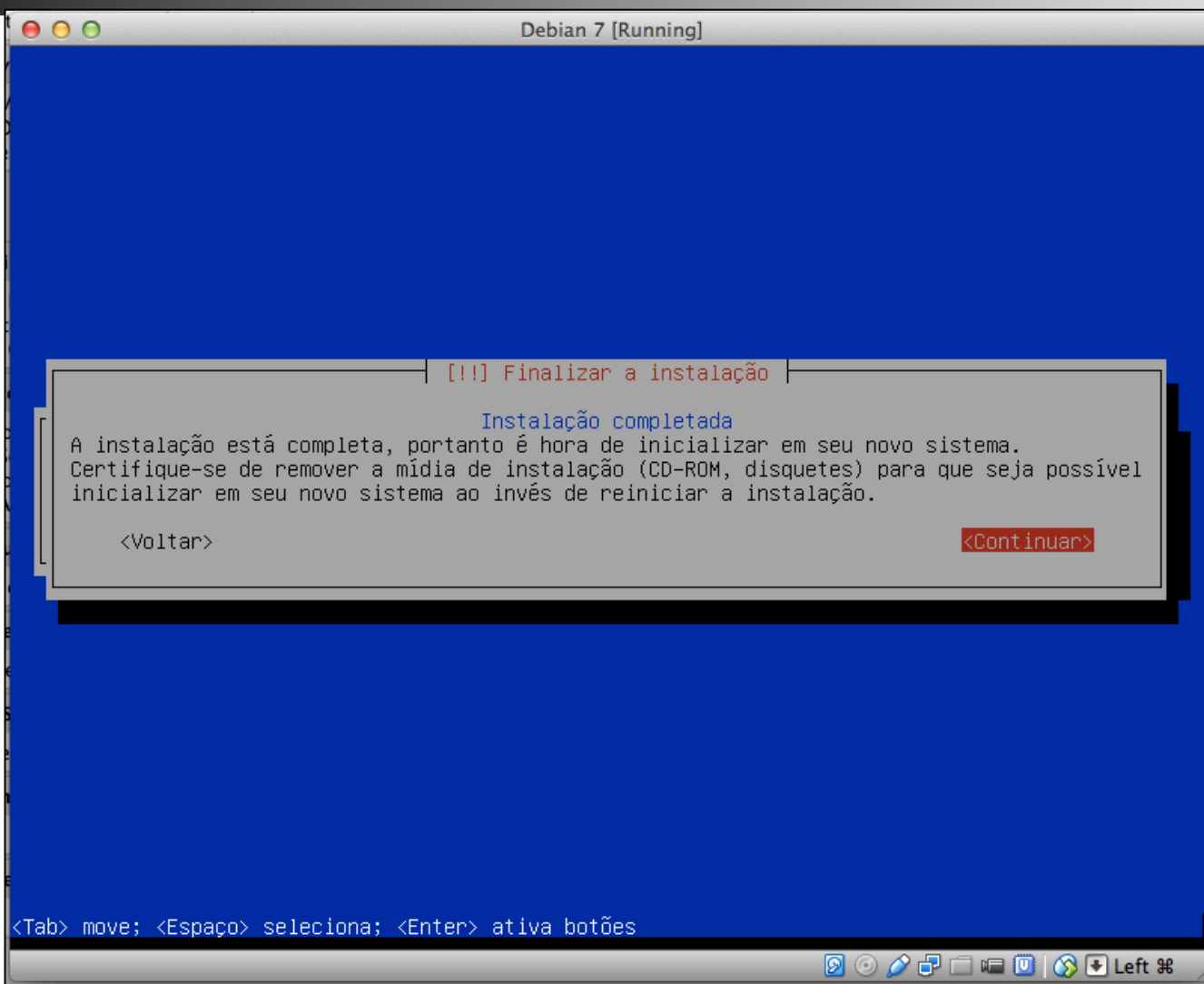


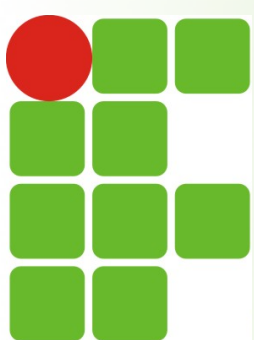
Instalando o GRUB





Instalação finalizada !

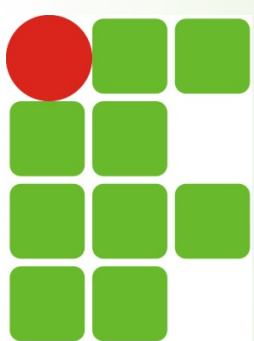




Tela de *login*

A terminal window titled "Debian 7 [Running]" with a black background and white text. The text inside the terminal reads "Debian GNU/Linux 7 jarvis tty1" followed by "jarvis login: _". The terminal window has a standard macOS-style title bar with red, yellow, and green window control buttons. At the bottom of the window, there is a dock with various system icons including network, volume, battery, and a keyboard icon labeled "Left".

```
Debian GNU/Linux 7 jarvis tty1
jarvis login: _
```



Botando os pingos nos "i"

- Geralmente não se usa o particionamento assistido, mas para uma primeira instalação é mais fácil
- O usuário root tem poderes ilimitados, logo, usem senhas difíceis!
- No dia-a-dia, sempre use o usuário limitado
- Os repositórios são onde estão localizados os programas que podemos instalar. Quanto mais perto de nós o repositório estiver, mais rápido tenderá a ser o download