



UNIVERSITÀ DI PERUGIA
Dipartimento di Matematica e Informatica



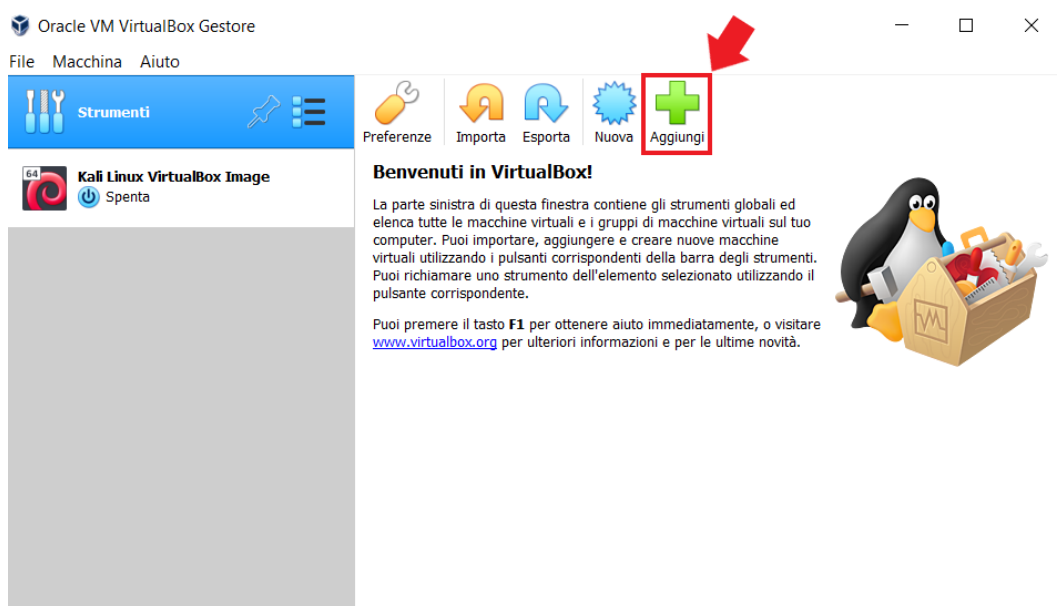
A simple guide to setting up a VM

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Introduzione alla Sicurezza Informatica

Anno Accademico 2022/2023

Introduction

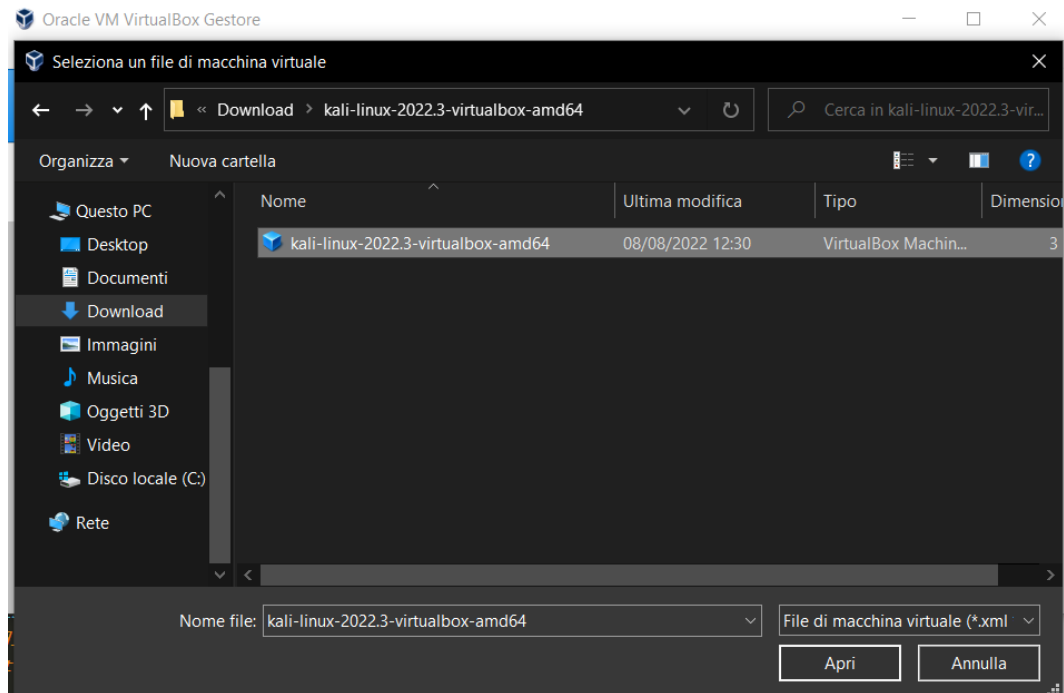
This short guide's main purpose is to provide the reader with the basic knowledge necessary to VM setup. In this case we will use VirtualBox ¹, version 6.1.38, as a virtualization product and Kali Linux², version Kali 2022.3, as operating system to install. This setup procedure can be applied to the installation of any operating system or Linux distribution. In case you don't want to create a VM from the beginning but you still want to try Kali, you can download a prebuilt VM³. With this particular prebuilt image you don't need install any OS you just need to add it in VirtualBox selecting "*Tools*" from the left side menu and then "*Add*" button, see Figure .



¹<https://www.virtualbox.org/>

²<https://www.kali.org/>

³<https://www.kali.org/get-kali/#kali-virtual-machines>



Creation of a VM

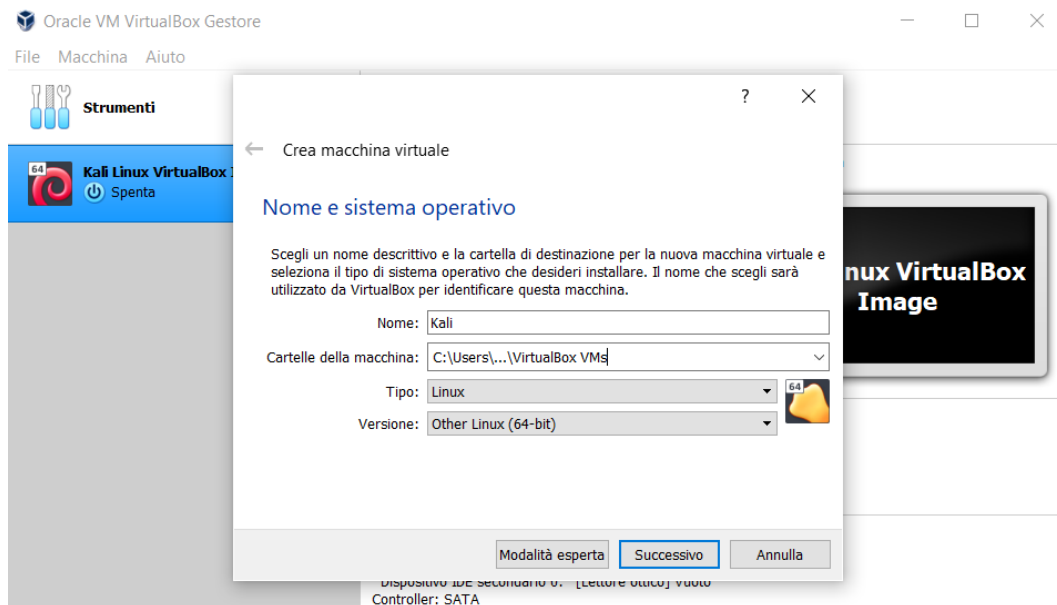
First of all we download the two components necessary for the VM:

- VirtualBox <https://www.virtualbox.org/wiki/Downloads>
- Kali iso image <https://www.kali.org/get-kali/#kali-installer-images>

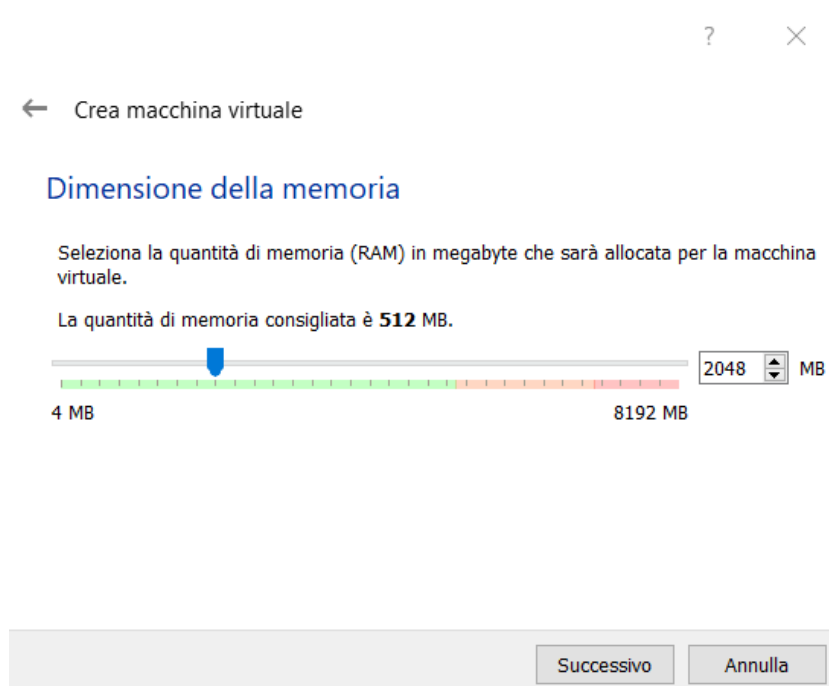
After the download of both of them you need to install VirtualBox and open it. Click *New* button and fill in the following fields⁴:

- **Name** → Kali (or any name you want based on OS)
- **Type** → Linux
- **Version** → Other Linux(64-bit)

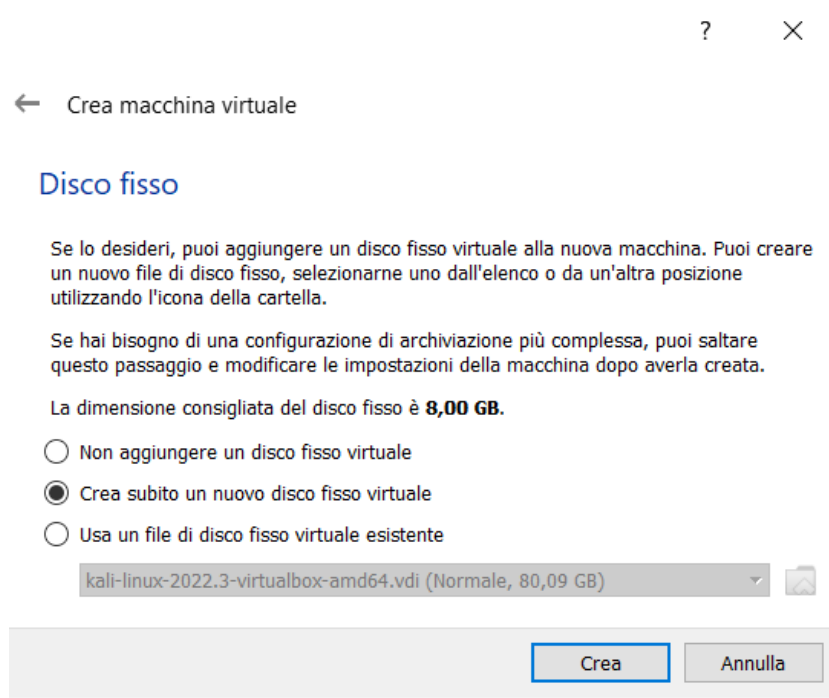
⁴N.B. If you are installing another OS you have to adapt them to it.



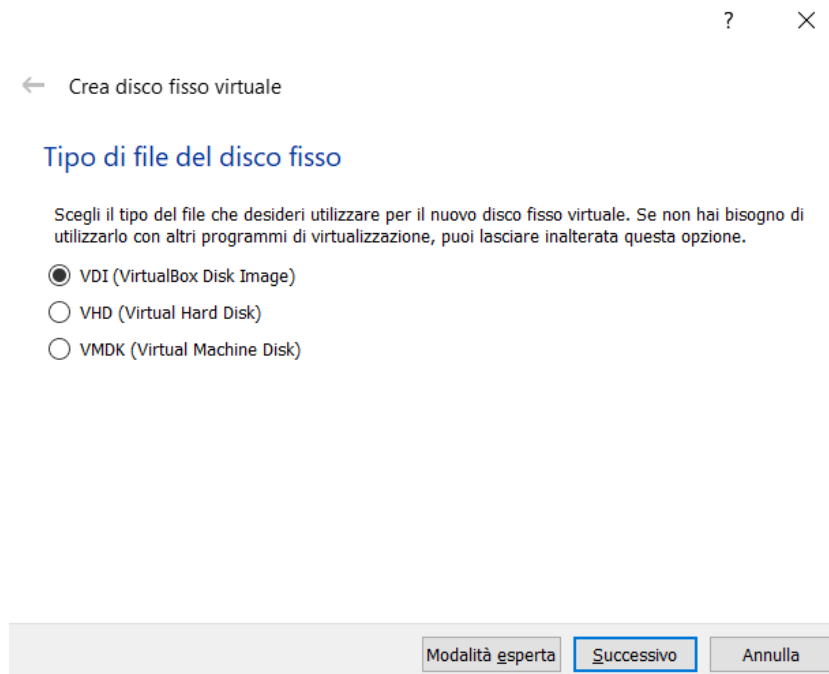
Then click on *"Continue"*, now you'll have to set some settings. First decide how much RAM you want to allocate for the virtual machine you are creating. Keep in mind that this amount of memory will only be occupied when the machine is turned on. The recommended amount of memory is 512 MB, which may be insufficient for smooth use of the virtual machine. Increase dedicated RAM to at least 2048 MB. Click on the *"Continue"* button.



After that select the option *"Create a new virtual hard disk now"* and click on the *"Create"* button.

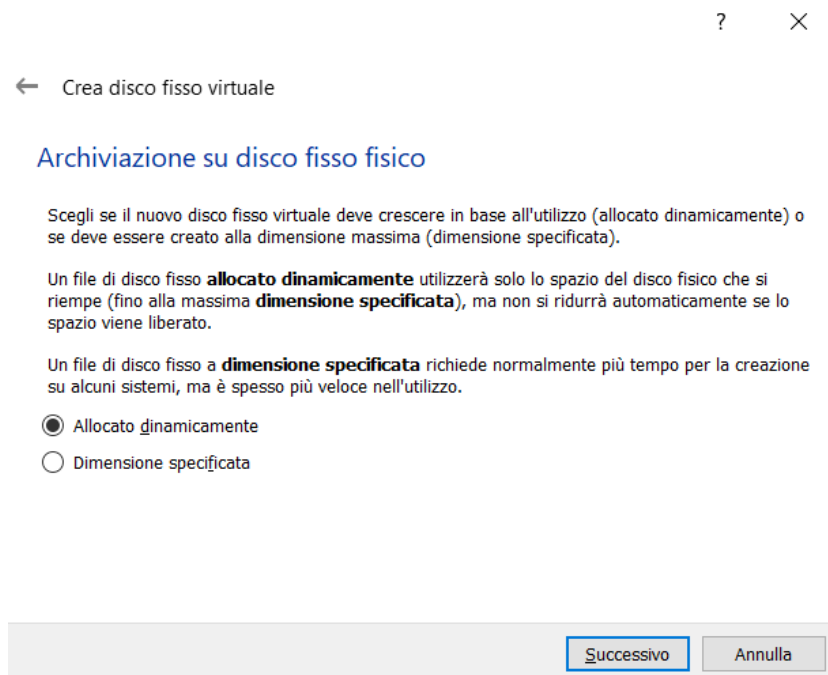


In the file type window select *"VDI"* option.

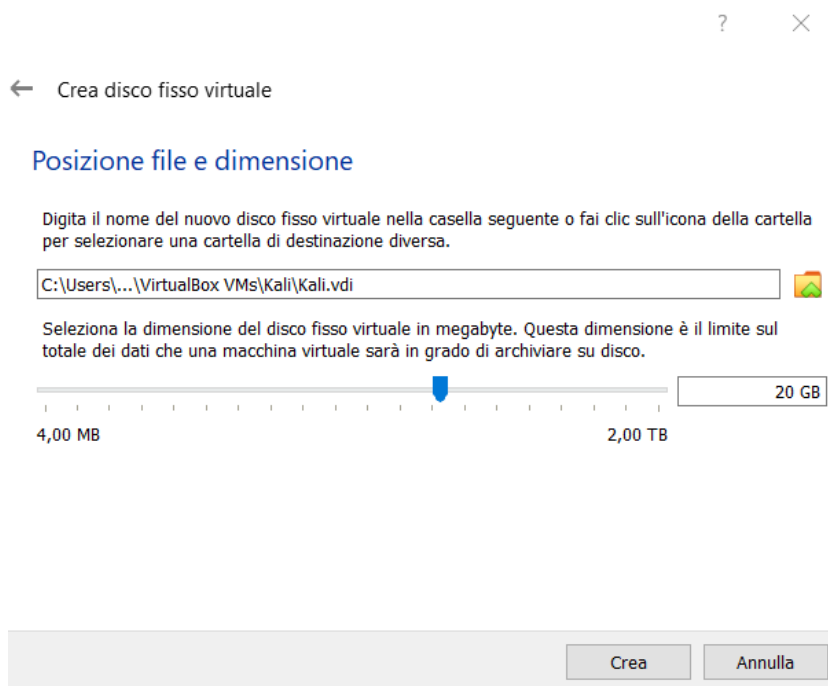


Choose from physical hard drive storage options *"Dynamic Allocated"*, the hard drive will only use as much physical disk space as it fills up, up to the specified

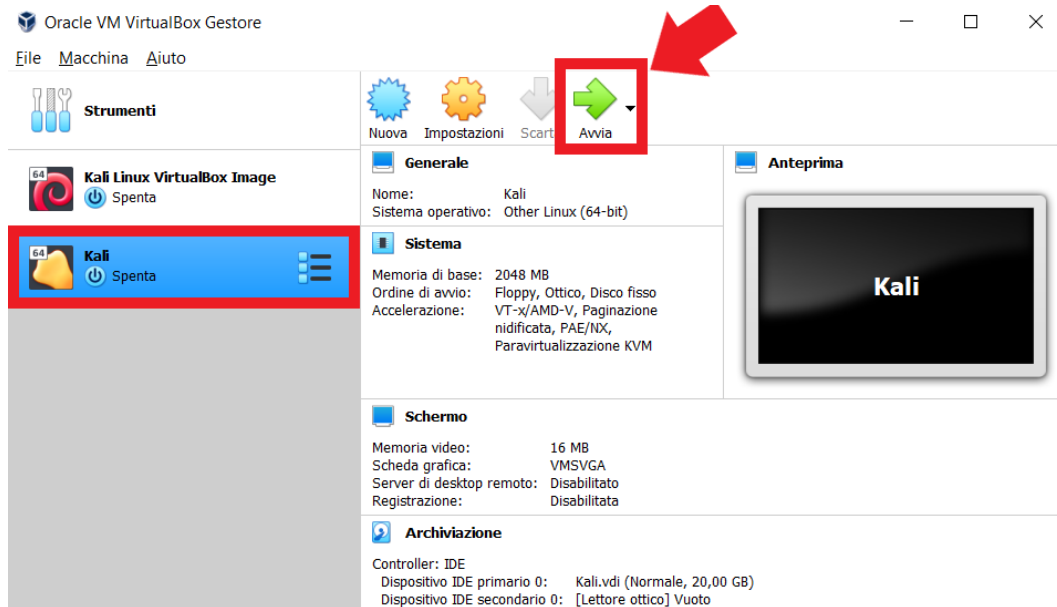
maximum size. If you choose *"Specified Size"*, instead, the virtual hard disk will directly occupy the size you choose, but it will be faster to use.



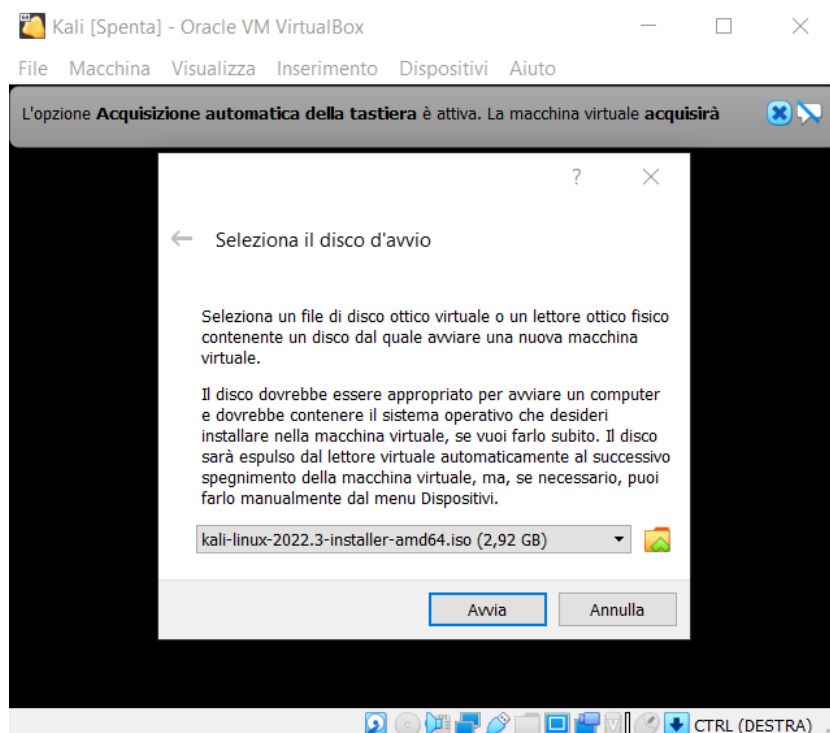
Choose the size of the virtual hard drive, increase the dedicated space to at least 20GB and click on the *"Create"* button.



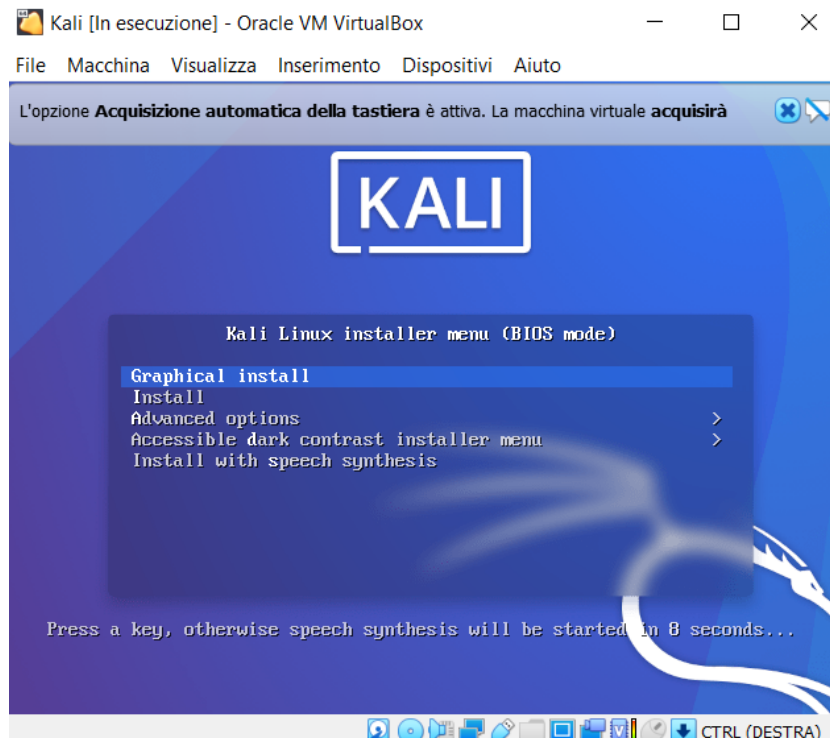
Now you should see the VM created in the left side menu.



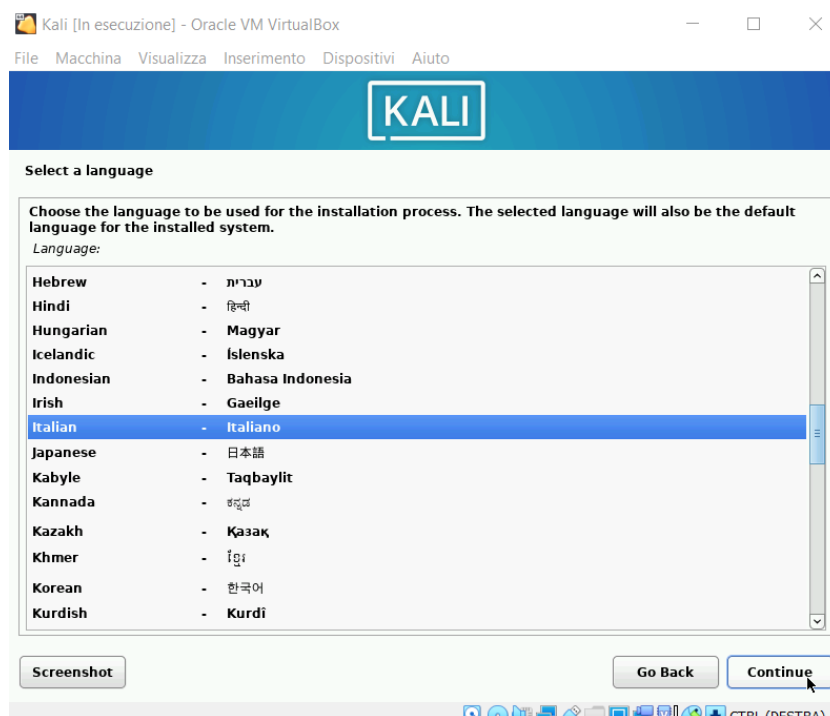
You will be prompted to select a virtual optical disk file from which to boot the new virtual machine. Click on the folder icon and select the iso file downloaded. Then, press the "Start" button.



At this point, the Kali Linux installer will launch. Select "Graphical Install".

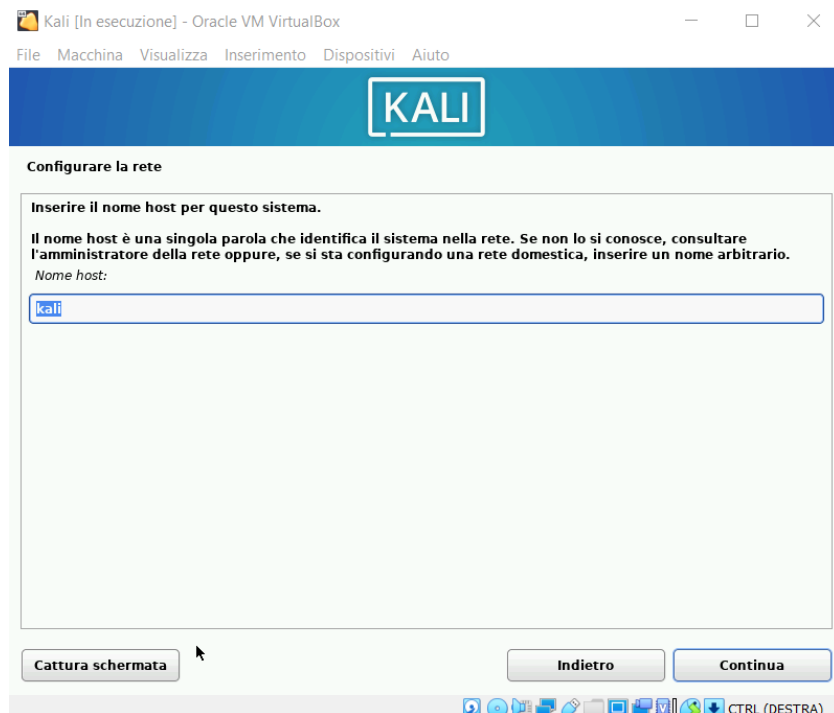


Select your preferred language and click on the *"Continue"* button.

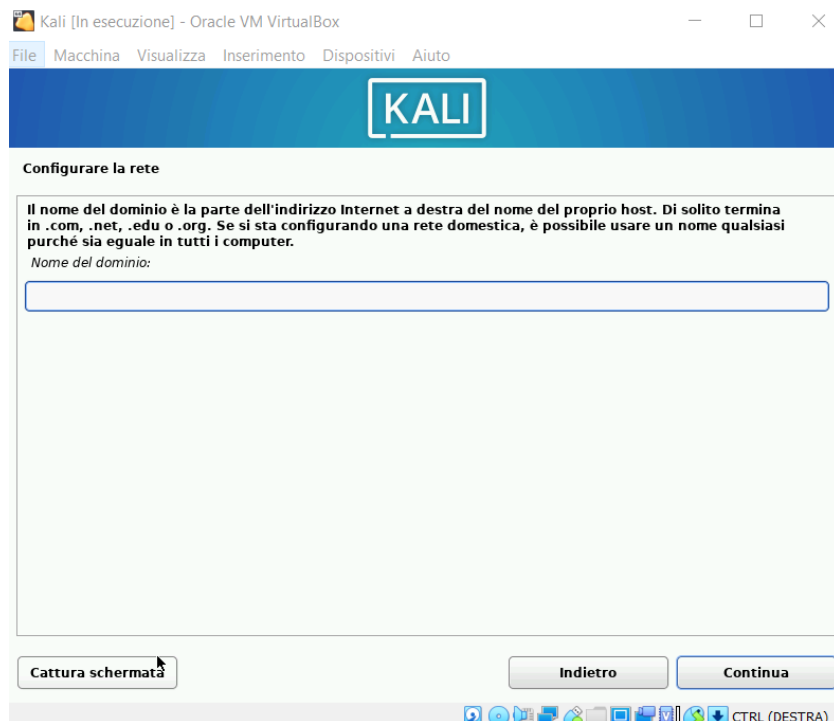


In *"Select the position"* window select the country you prefer, in this case *"Italia"*. Then it will ask you to choose the keyboard layout, in this case *"Italiana"*. After that

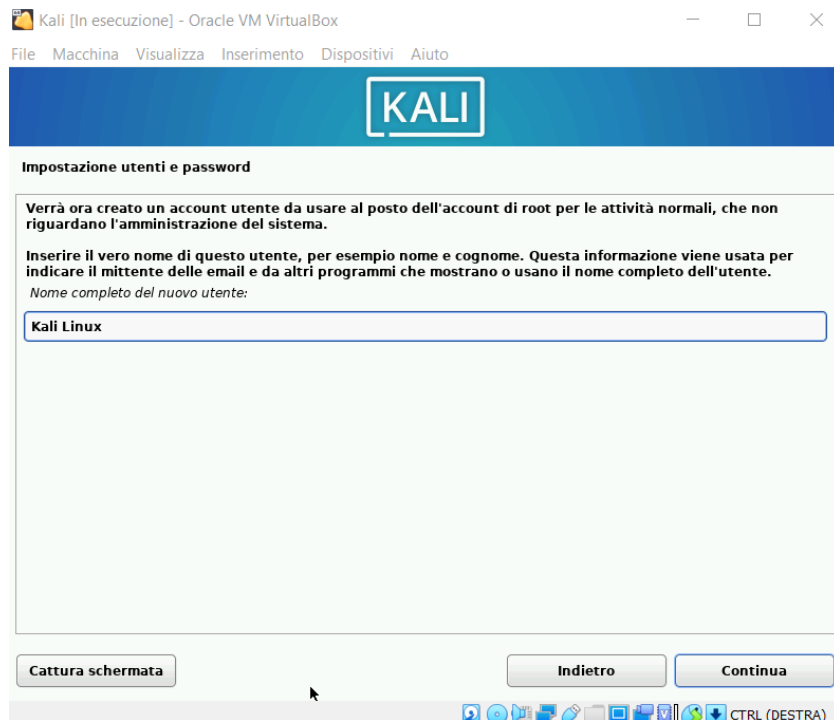
enter the host name, for example “*kali*”.



Leave the “*Domain Name*” box blank empty.



Now you need to configure user and password. Choose the full name of the new user to be created and enter it in the space provided, for example *"Kali Linux"*.



Kali [In esecuzione] - Oracle VM VirtualBox

File Macchina Visualizza Inserimento Dispositivi Aiuto

KALI

Impostazione utenti e password

Verrà ora creato un account utente da usare al posto dell'account di root per le attività normali, che non riguardano l'amministrazione del sistema.

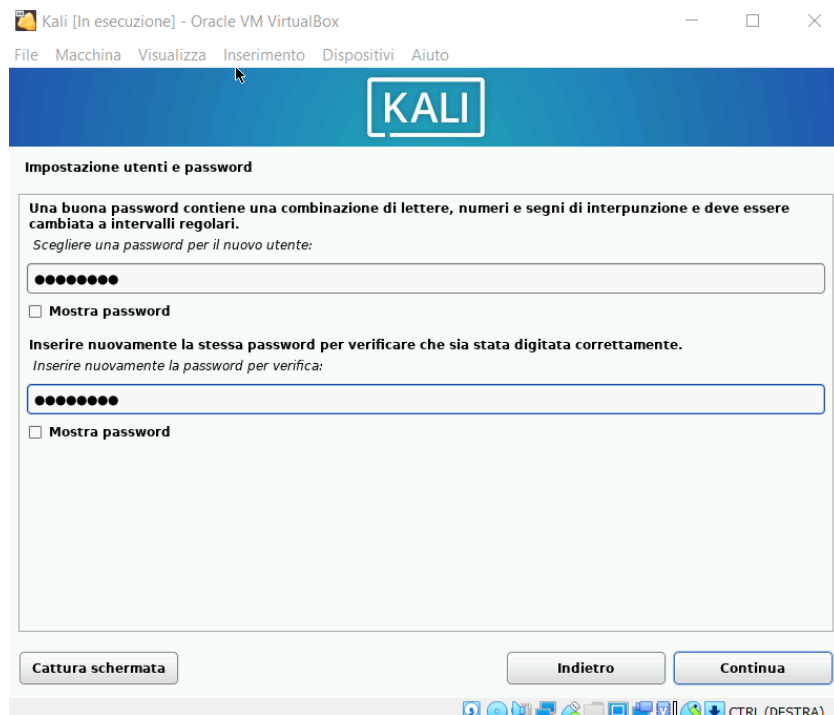
Inserire il vero nome di questo utente, per esempio nome e cognome. Questa informazione viene usata per indicare il mittente delle email e da altri programmi che mostrano o usano il nome completo dell'utente.

Nome completo del nuovo utente:

Cattura schermata Indietro Continua

CTRL (DESTRA)

Choose the username for the account, it should start with a lowercase letter. In the next window insert a password.



Kali [In esecuzione] - Oracle VM VirtualBox

File Macchina Visualizza Inserimento Dispositivi Aiuto

KALI

Impostazione utenti e password

Una buona password contiene una combinazione di lettere, numeri e segni di interpunzione e deve essere cambiata a intervalli regolari.

Scegliere una password per il nuovo utente:

☐ Mostra password

Inserire nuovamente la stessa password per verificare che sia stata digitata correttamente.

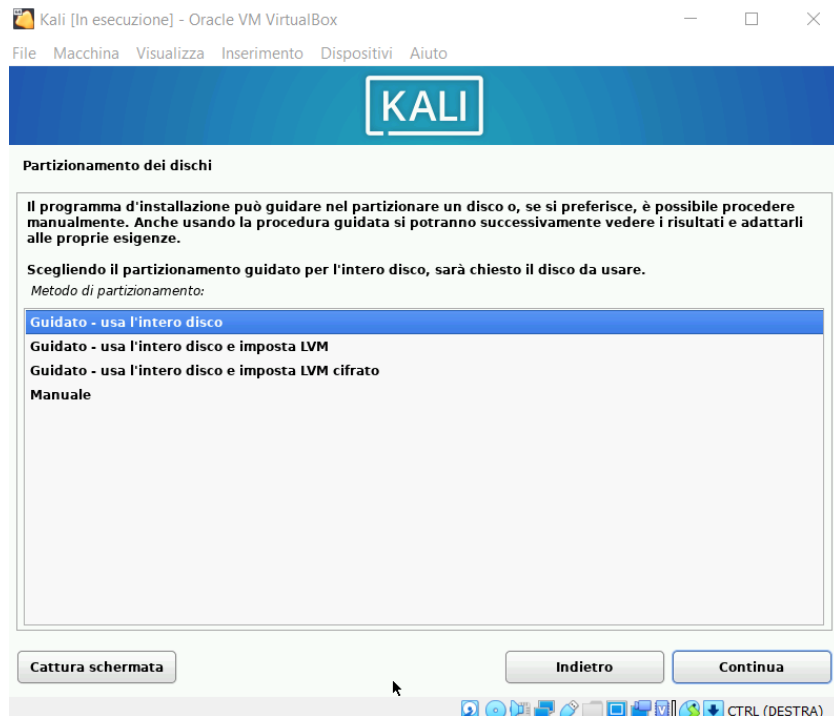
Inserire nuovamente la password per verifica:

☐ Mostra password

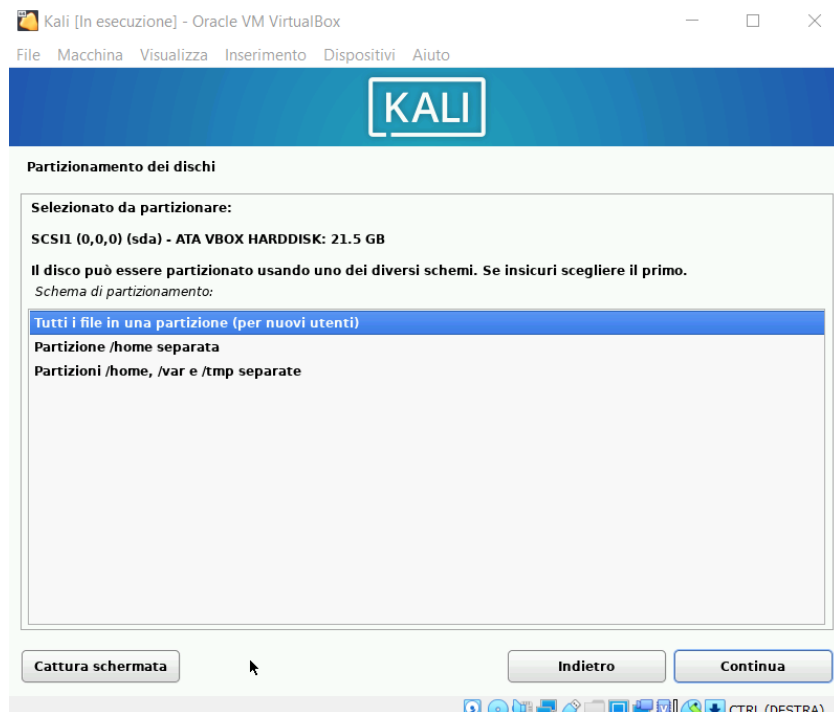
Cattura schermata Indietro Continua

CTRL (DESTRA)

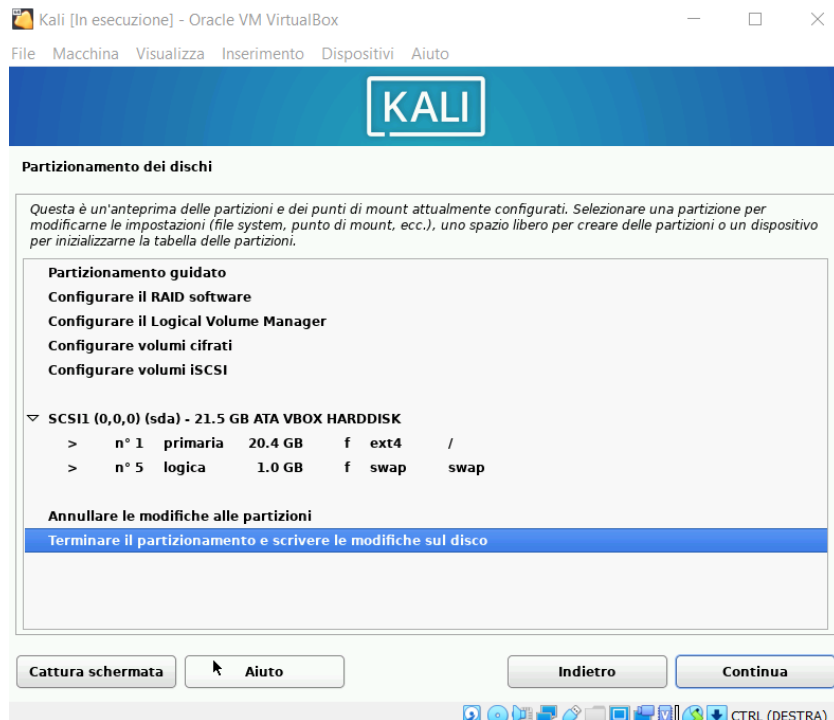
Choose as method of partitioning the disk *"Guided - use the entire disk"*.



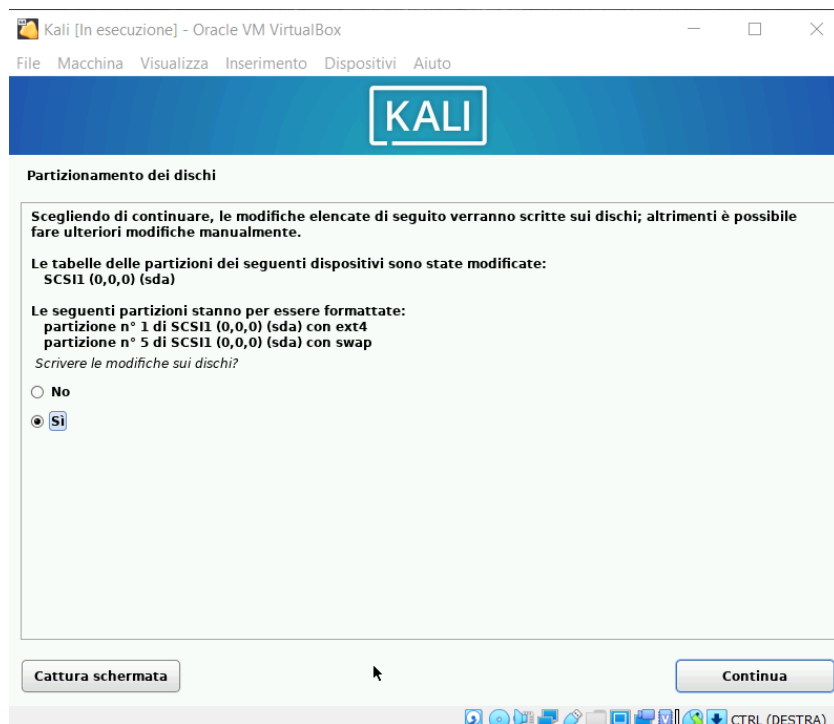
Next select the disk to partition you should have only one option available, then select *"All files in one partition (for new users)"*.



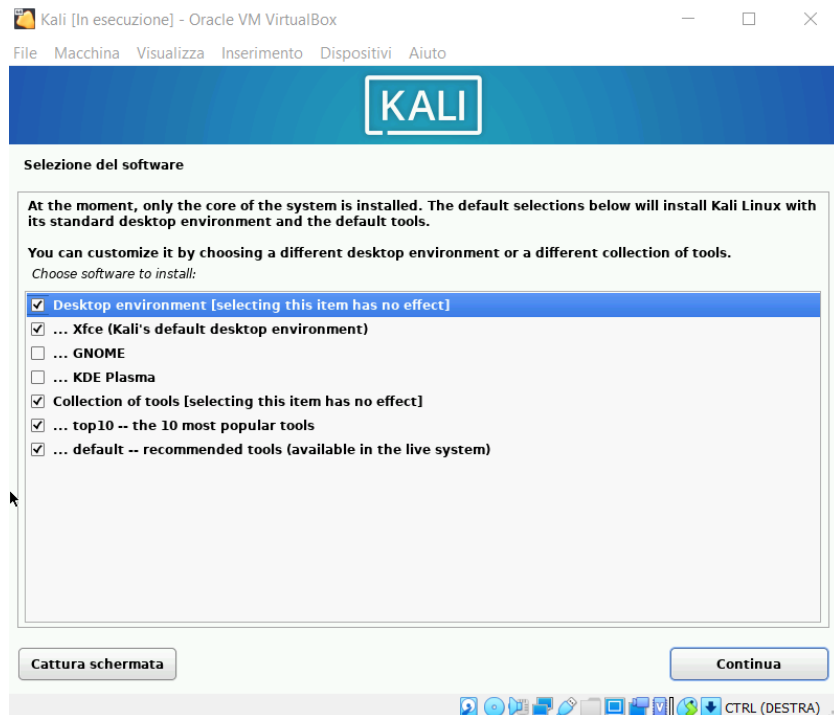
Just click *"Continue"*, now the partitions created will be formatted.



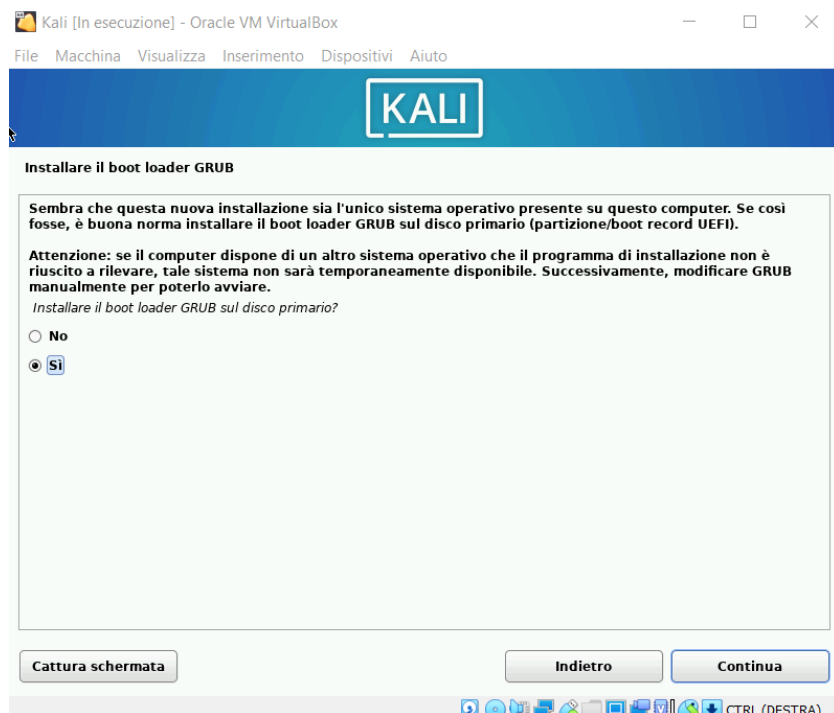
Select "Yes" and continue.



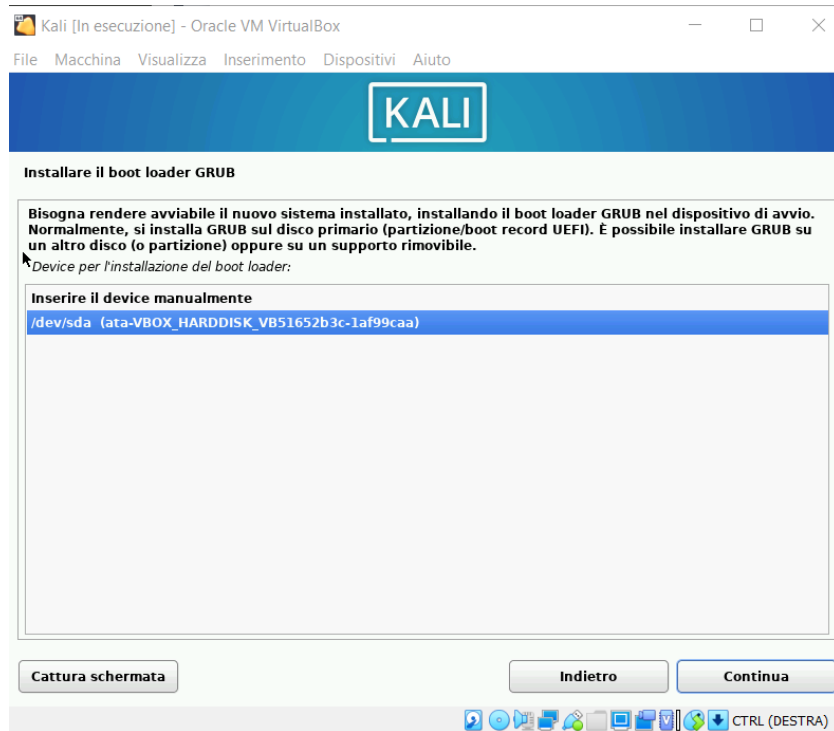
Now you have to select all the software you want to install, in this case we left the default ones. It will take a few minutes to install all the components.



Select "Yes" in order to install the GRUB boot loader.



Choose the device on which to install the boot loader and click on "Continue".



After this last step you should see the end of installation window, restart the system by clicking on "*Continue*". At the first start, create your username and password and enjoy the Kali Linux virtual machine and at this point the procedure will be finished.

