

Documentation of installing OS (Operating System)

Week 1 Day 1

Different OS used in Cyber security:

- **Kali Linux:** This is a OS which is used in fields of penetration testing, digital forensics, and other security-related activities.
- **Parrot OS:** This is a OS which is light-weight design and high performance.
- **BlackArchLinux:** It is a OS which is lightweight and customisation Linux distribution that includes over 2700 pre-installed tools and applications, making it one of the most comprehensive security-focused operating systems available.
- **Fedora Security Lab:** Fedora Security Lab is available as a standalone operating system or as a security spin of Fedora. It includes a comprehensive set of security tools and applications, such as Wireshark, Nmap, Metasploit, and many others.

Installing Kali Linux Operating System.

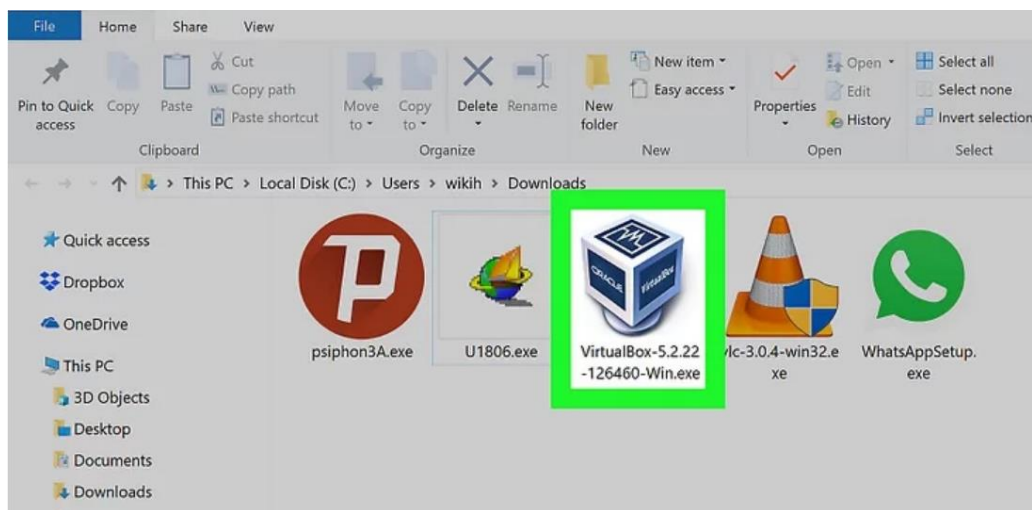
- **Step 1:** First download the Virtual Box in order to work with the Kali Linux OS.



- **Step 2:** Click download virtual box it's a blue button in the middle of the page. Doing so will open the downloads page.



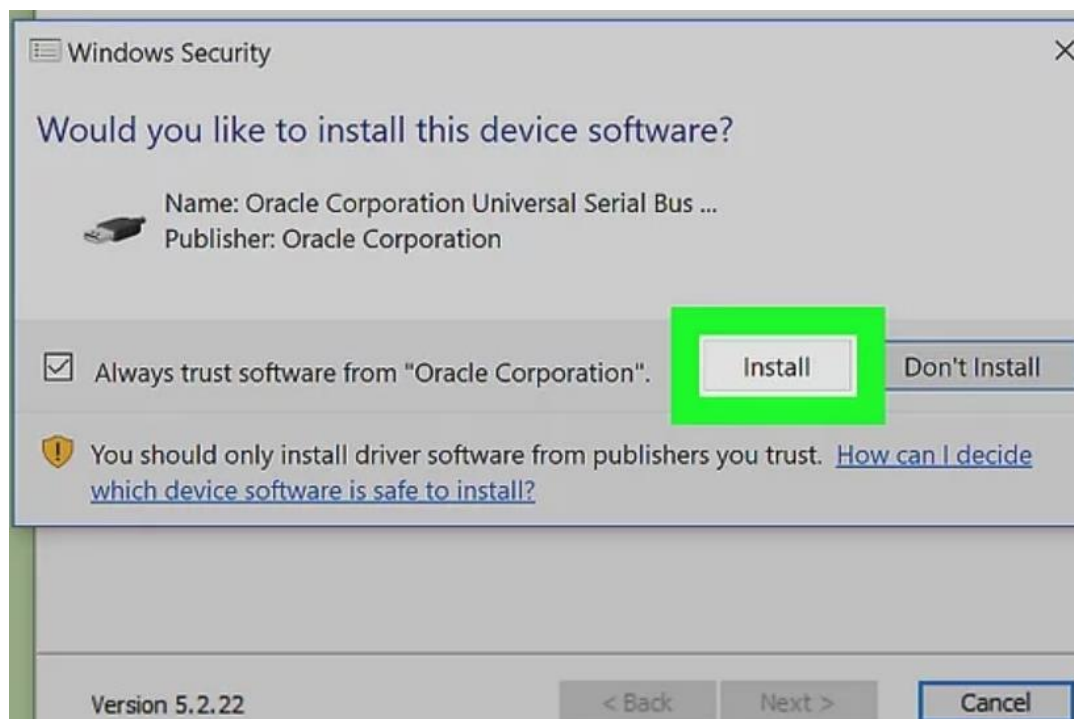
- **Step 3:** Click on windows hosts, You'll see this link below the Virtual Box platform packages" heading. The Virtual Box EXE file will begin downloading onto your computer.



- **Step 4:** Open the Virtual Box EXE file. Go to the location to which the EXE file downloaded and double-click the file. Doing so will open the Virtual Box installation window.



- **Step 5: Navigate through the installation prompts.** Do the following:
- Click Next on the first three pages.
- Click Yes when prompted.
- Click Install
- Click Yes when prompted.



- **Step 6:** Click install when prompted, doing so will allow virtual Box to begin installing on your computer.



Steps for downloading the kali Linux OS software.

Download Kali Linux installer ISO image

```
### With wget ###
```

```
wget https://cdimage.kali.org/kali-2024.2/kali-linux-2024.2-installer-amd
```

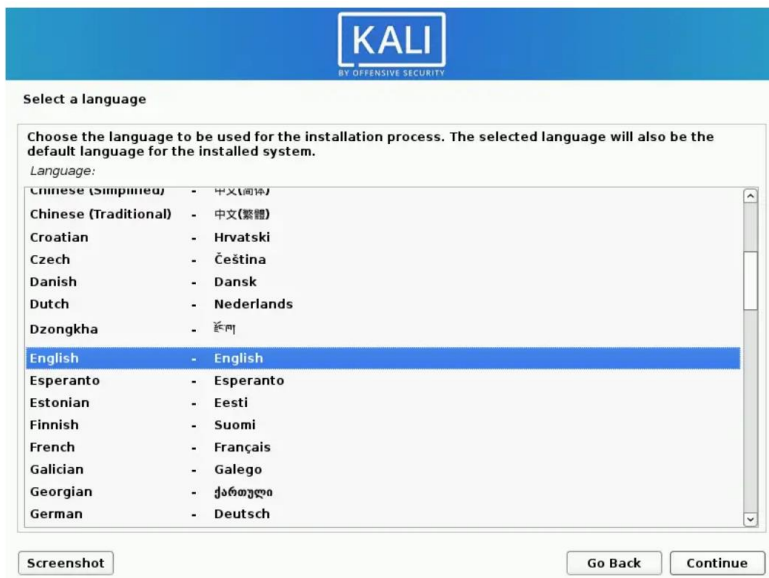
Create bootable USB drive.

```
sudo dd if=kali-linux-2024.2-installer-amd64.iso of=/dev/sdX bs=512k
```

Boot Kali Linux installer image.



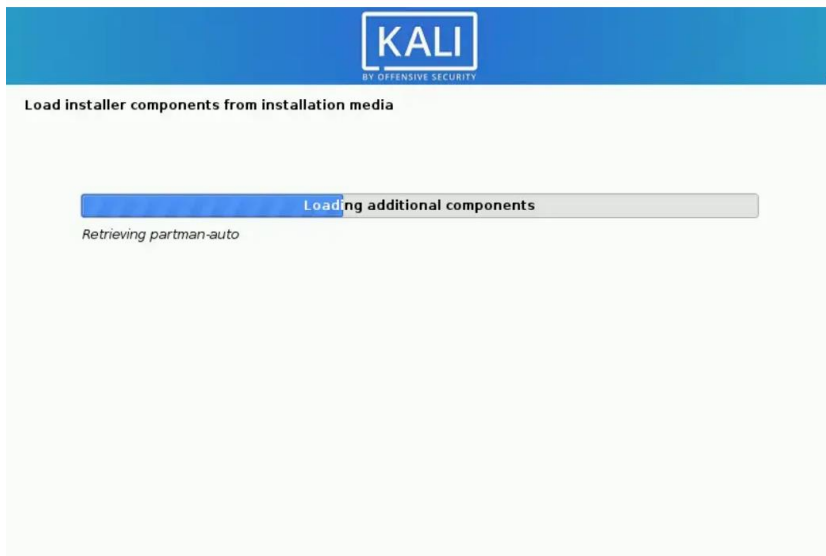
Choose the language to use during installation process – English for me.



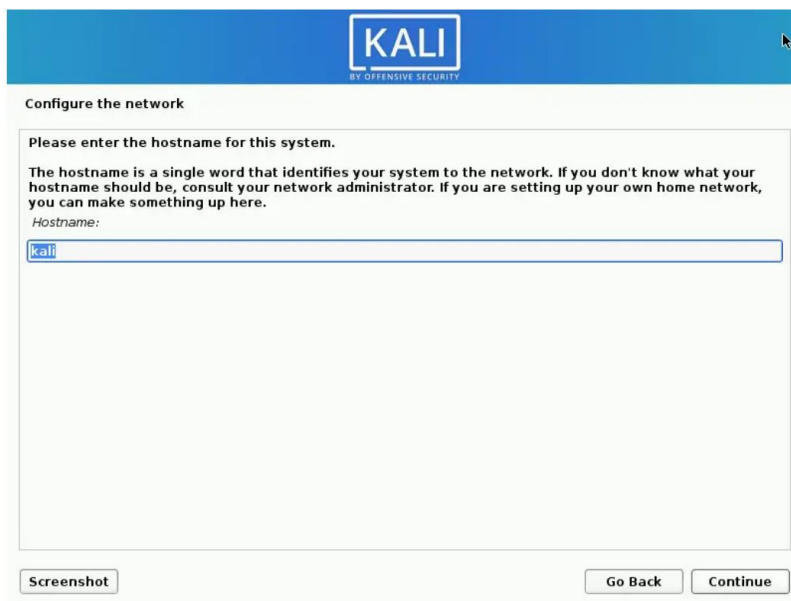
Configure *Keyboard* keymap.



Wait for the installation to start – it should take few minutes.



Set your machine *hostname*.



Set domain name, this will be part of FQDN – <hostname>. <domain name>



Create a user for non-administrative activities – set *full name* and *username*.



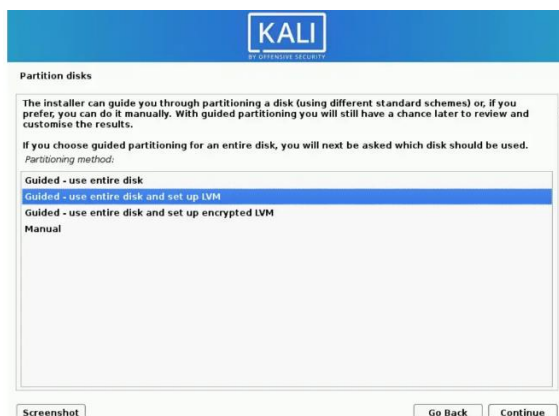
The image shows a Kali Linux installer window titled "Set up users and passwords". At the top is the Kali logo with the text "BY OFFENSIVE SECURITY". Below the title, there is a text box containing instructions: "Select a username for the new account. Your first name is a reasonable choice. The username should start with a lower-case letter, which can be followed by any combination of numbers and more lower-case letters." Below this, it says "Username for your account:" followed by a text input field containing the text "jmutai". At the bottom of the window, there are three buttons: "Screenshot", "Go Back", and "Continue".

Set password for the user.



This image is identical to the one above, showing the "Set up users and passwords" screen in the Kali Linux installer. The username "jmutai" is entered in the text field, and the "Go Back" and "Continue" buttons are visible at the bottom.

Choose disk partitioning method – If you're not sure, go with “Guided – use entire disk “



The image shows a Kali Linux installer window titled "Partition disks". At the top is the Kali logo with the text "BY OFFENSIVE SECURITY". Below the title, there is a text box containing instructions: "The installer can guide you through partitioning a disk (using different standard schemes) or, if you prefer, you can do it manually. With guided partitioning you will still have a chance later to review and customise the results." Below this, it says "If you choose guided partitioning for an entire disk, you will next be asked which disk should be used." Below this, it says "Partitioning method:" followed by a list of options: "Guided - use entire disk", "Guided - use entire disk and set up LVM", "Guided - use entire disk and set up encrypted LVM", and "Manual". The "Guided - use entire disk" option is highlighted with a blue background. At the bottom of the window, there are three buttons: "Screenshot", "Go Back", and "Continue".

Select how partitioning should be done. For new users, all files in one partition should work fine. If you have enough installation disk size, you can go with separate /home, /var, /tmp partitions. This may require doing custom partitioning in the previous steps for accurate disk allocation.

Write changes to disk.

If you chose LVM, set size of volume group to be created.

Commit changes to disk.

Wait for the installation to start – it should take few minutes.

If you have a network proxy for external access, then configure it in the next screen.

Package manager apt configuration will start.

Choose *software applications* and *Kali desktop environment* to install.

You can choose tools based on your Kali Linux use case – Purpose for installation.

Install the GRUB boot loader to the master boot record so you can boot your Kali Linux image.

Select target disk for GRUB installation – Mostly the first disk.

Your installation completed successful if you don't see any error messages.

You can continue and reboot your system to start using Kali Linux.

Conclusion:

The kali Linux installed successfully.

