

## Setting up the environment for the project.

### Steps for setting up attacking environment – **Kali Linux**.

1. First thing first, install Virtual Box or VMware.  
*I used Virtual Box Version 7.0.4 r154605 (Qt5.15.2)*
2. I chose Kali Linux as an attacking OS and used this link for downloading the Virtual Box image for it.

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

#### *My Kali OS Build Information is:*

```
NAME="Kali GNU/Linux"
VERSION="2022.4"
VERSION_ID="2022.4"
VERSION_CODENAME="kali-rolling"
ID=kali
ID_LIKE=Debian
HOME_URL=https://www.kali.org/
SUPPORT_URL=https://forums.kali.org/
BUG_REPORT_URL=https://bugs.kali.org/
ANSI_COLOR="1;31"
```

*I opened the Kali Linux OS image in Virtual Box and set the necessary parameters, like how many CPUs, RAM, Storage, etc.*

#### *My Hardware specs are:*

```
BASE MEMORY: 8 GB
CPU: 6
STORAGE: 80 GB
NETWORK: BRIDGED
```

*I booted the Kali Image and went through the boot setup, and once Kali was up and running, updated, and upgraded it.*

### Steps for setting up victim environment – **Linux Mint**.

1. I chose linux mint OS (cinnamon) for our docker environment. I used this link for downloading the iso image.

<https://muug.ca/mirror/linuxmint/iso/stable/21.1/linuxmint-21.1-cinnamon-64bit.iso>

#### *My OS Build Info*

```
VERSION="20.10.12"
API_VERSION_ID="1.41"
GO_VERSION="go1.17.3"
GIT_COMMIT="20.10.12-0ubuntu4"
BUILT="Mon Mar  7 17:10:06 2022"
OS/ARCH="linux/amd64"
```

2. I again setup a virtual machine on virtual box and used the linux mint image and set up the hardware parameters.

#### *My Hardware specs are:*

```
BASE MEMORY: 6 GB
CPU: 5
STORAGE: 100 GB
NETWORK: BRIDGED
```

3. Followed the same step as step 6 in last section.

## Docker inside linux mint

1. I used this link to install docker on linux mint.  
<https://www.kali.org/docs/containers/installing-docker-on-kali/>  
*I used it because kali and mint both are Debian based Linux.*
2. Go in the terminal and type this to install docker.  
`sudo apt install -y docker.io`
3. Type this to enable docker.  
`sudo systemctl enable docker --now`
4. Type `docker --help` for usage of docker on linux.
5. To test the docker type this to run container of dvwa image.  
`sudo docker run --rm -it -p 80:80 vulnerables/web-dvwa`
6. Navigate to web browser and write the loopback address it will be hosting a dvwa.
7. We can choose any other image to start with as in the end it is the attack on the container which matters, and it will be helpful if someone could suggest any image to start attacking with.