# TRAINING DAY 7 REPORT:

- ## VirtualBox Network Modes

  Today, I learned about the **different types of network modes in VirtualBox**, which help in controlling how the virtual machine (VM) connects to the outside world.

1. ### NAT (Network Address Translation)

   **- Default network mode** in VirtualBox.

   - VM **shares the host's internet connection**, but **cannot be accessed** from other devices or your host directly (unless ports are forwarded).

   **- Simple and safe for basic browsing or updates.**
   *Best for*: **Internet access with minimal setup.**
   *Drawback*: **VM is isolated from host and LAN.**

2. **Bridged Adapter**

   - VM **acts like a separate computer** on the same network as your host.

   - It gets its **own IP address from the router**.

   **- Can communicate with host and other devices on the network.**
   *Best for*: **Pentesting, scanning, or VM behaving like a real device.**
   *Drawback*: **Slightly more complex, may not work on public Wi-Fi.**

3. **Host-Only Adapter**

   - Creates a **private network between host and VM** only.

   - VM can **communicate with host**, but **not with the internet or other LAN devices**.

   *Best for*: **Testing services locally or transferring files.**
   *Drawback*: **No internet access unless combined with NAT.**

4. **Internal Network (LAN Segments in VirtualBox)**

   - Creates a **completely isolated local network** between two or more VMs.

   **- No access to the host or internet.**

- Used to simulate private LANs or test firewall setups.
  *Best for*: Lab setups, practicing network attacks or defenses.
  *Drawback*: Only works between VMs connected to the same segment.

- # Installing & Configuring DVWA

## DVWA (Damn Vulnerable Web Application)

DVWA is a **deliberately insecure web application** created to help students, developers, and cybersecurity enthusiasts practice and learn about web vulnerabilities in a safe and legal environment.

D**ownload and install DVWA manually** from Google using **XAMPP**, a tool that provides Apache server, MySQL, and PHP support in one package.

## Step-by-Step Guide to Install DVWA Manually Using XAMPP

1. **Download XAMPP**

   - Download the **XAMPP installer** for your operating system (Windows/Linux).

   - Install XAMPP and open the **XAMPP Control Panel**.

   **- Start Apache and MySQL services.**

2. **Download DVWA Manually**

   - Go to Google → Search:
   `DVWA GITHUB`

   - Open the link from: https://github.com/digininja/DVWA

   - Click on **Code → Download ZIP**.

   - Extract the ZIP file to:

     **Windows**: C:\xampp\htdocs\dvwa

     **Linux:** /opt/lampp/htdocs/dvwa

3. **Configure DVWA Files**

   - Open the folder: dvwa/config

   - Rename the file config.inc.php.dist to config.inc.php

   - Open config.inc.php and edit the following line:

```
$_DVWA[ 'db_password' ] = ' ';
```

(Set it to blank if your MySQL root user has no password, or enter your password accordingly)

4. **Create DVWA Database**

   - Open your browser → Go to
     http://localhost/phpmyadmin

   **- Click on New → Create Database**
   **Name it:** dvwa **→ Click Create**

5. **Access DVWA**

   - In browser, visit:
     http://localhost/dvwa/setup.php

   - Click **"Create / Reset Database"**

   - Once done, go to:
     http://localhost/dvwa/login.php

Use the default login:

- **Username**: admin
- **Password**: password

## DVWA Installed Successfully!

Now you're ready to explore **vulnerabilities** and **practice ethical hacking** in a safe offline environment.