

Minor 2 Project Report

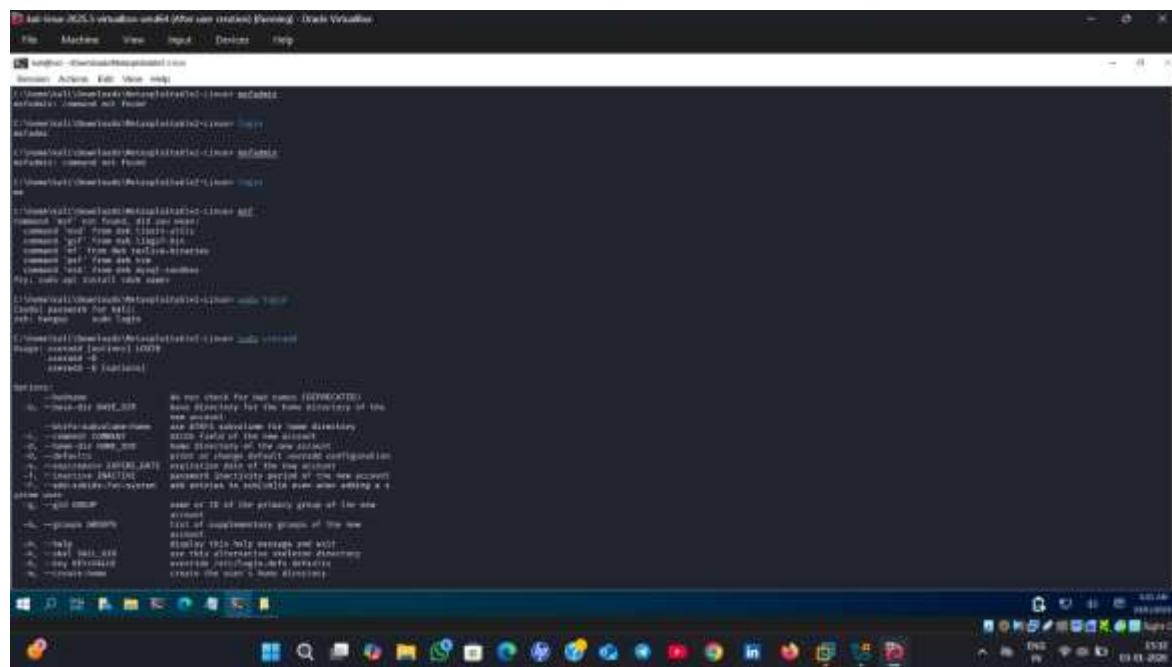
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Project Title: Metasploitable2 Setup and Mutillidae II Fix

ERP :
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1. Introduction

The objective of this project is to install and configure Metasploitable2, create a new user inside the system, take a virtual machine snapshot, and identify and fix the Mutillidae II database error. This project is performed for educational and ethical hacking practice purposes only.



2. Metasploitable2 Setup

Metasploitable2 was installed using a virtual machine environment. VMware Workstation was used on Windows to import and run the Metasploitable2 virtual machine. The default login credentials were used to access the system.

Login Credentials:

Username: kali

Password: kali

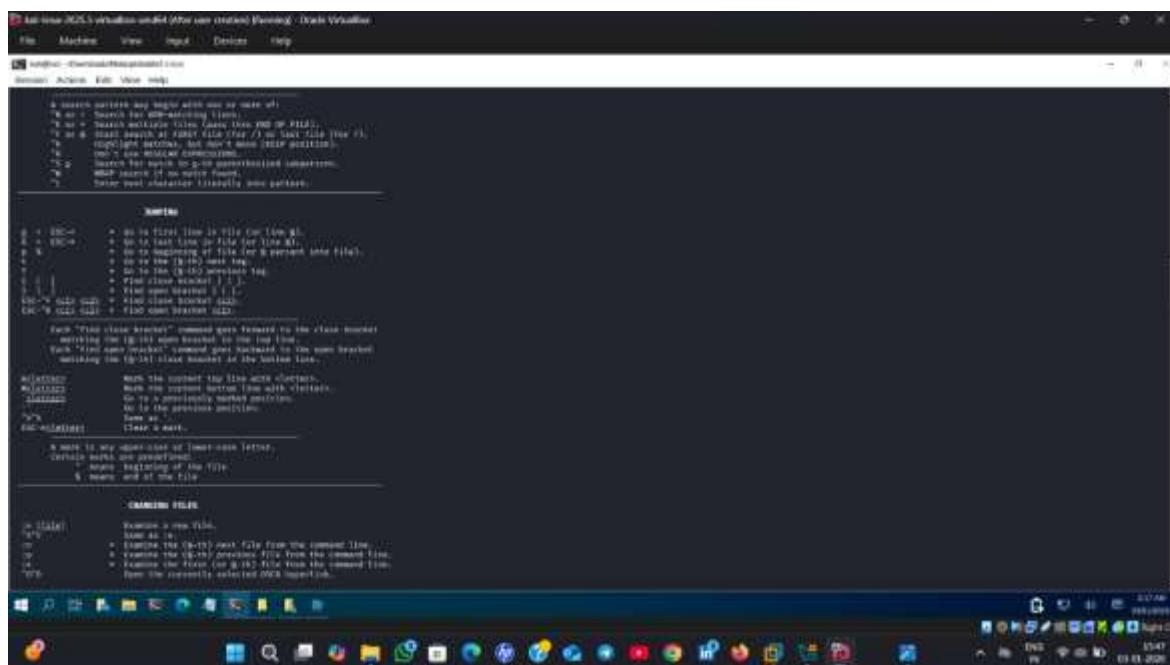
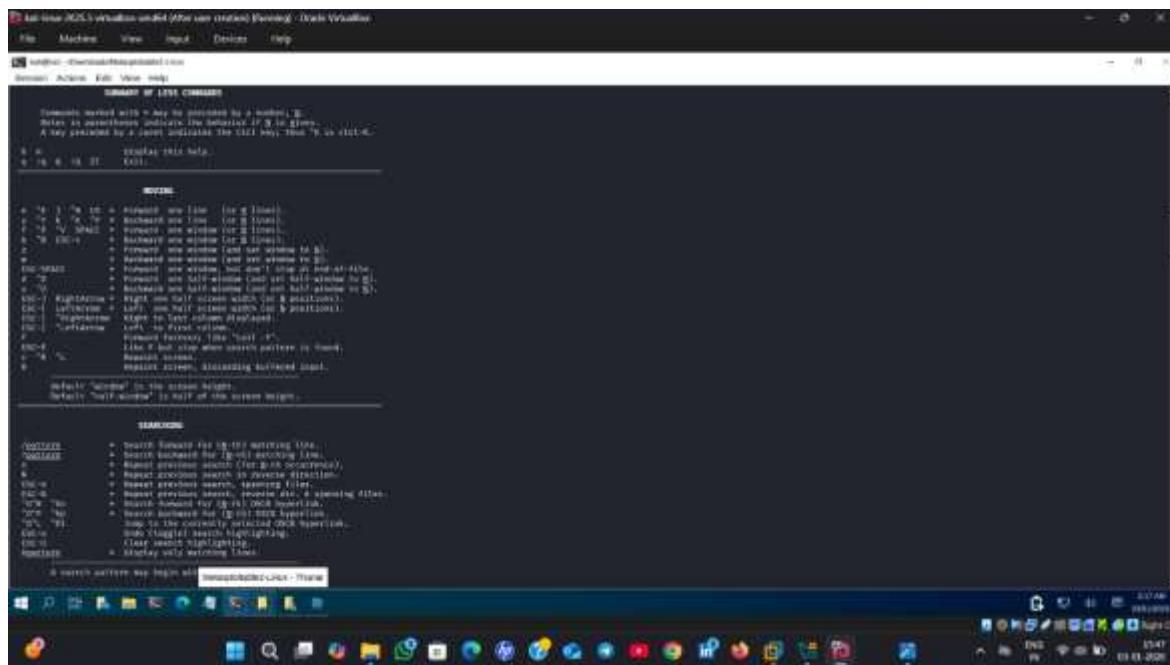
3. User Creation

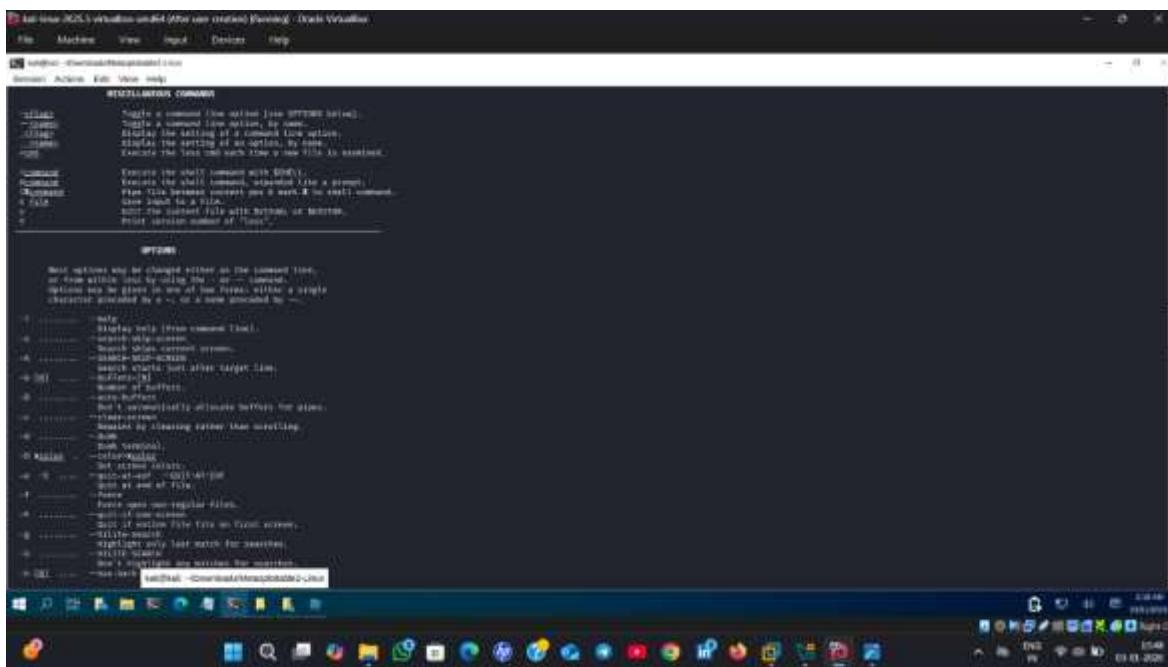
A new user was created inside Metasploitable2 using the student's name. The following commands were used to create and verify the user:

```
sudo useradd ayush sudo  
passwd ayush cat /etc/passwd  
| grep Ayush
```

4. Snapshot Creation

After creating the new user, a snapshot of the virtual machine was taken using the virtualization software. This snapshot was named 'After user creation'.





The screenshot shows a terminal window titled "tar (tar) 2025.5-1ubuntu1 (Ubuntu 20.04 LTS) (Ubuntu 20.04 LTS) - Oracle VM VirtualBox". The window displays the man page for the "tar" command, specifically the "OPTIONS" section. The options listed include:

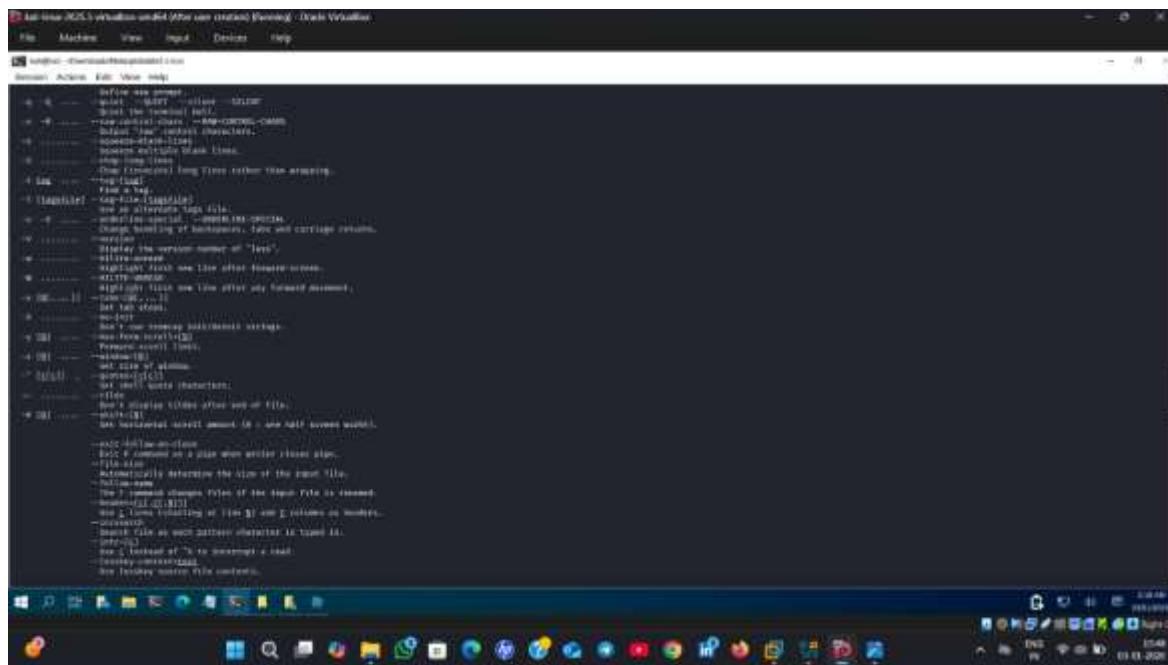
- A: Extract all entries from archive file.
- C: Change current directory to directory.
- D: Display the setting of a command line option.
- E: Display the setting of an option, by name.
- F: Extract the last two characters from each line as needed.
- G: Create the shell command with tar(1).
- H: Extract entries from archive file as presented.
- M: Print file between comment per 8 next # in each line.
- N: Set input to a TTY.
- P: Extract full path names of entries.
- T: Print version number of tar(1).

Below this, the "SYNOPSIS" section is shown, which describes how options and arguments are combined on the command line, and provides examples of valid command lines.

5. Mutillidae II Database Fix

Initially, Mutillidae II showed a database connection error. To resolve this issue, Apache and MySQL services were started manually. The database setup page was accessed to reset and configure the database.

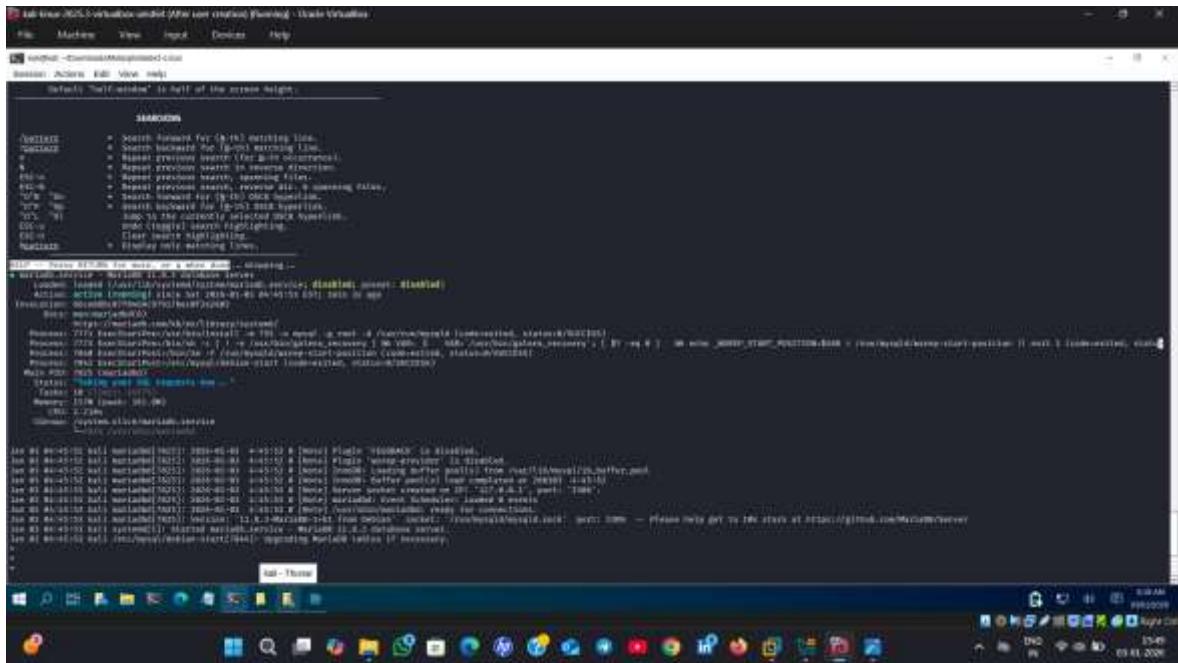
```
sudo service apache start
sudo service mysql start
http://localhost/mutillidae/set-up-database.php
```



The screenshot shows a terminal window titled "tar (tar) 2025.5-1ubuntu1 (Ubuntu 20.04 LTS) (Ubuntu 20.04 LTS) - Oracle VM VirtualBox". The window displays the man page for the "tar" command, specifically the "OPTIONS" section. The options listed include:

- A: Extract all entries from archive file.
- C: Change current directory to directory.
- D: Display the setting of a command line option.
- E: Display the setting of an option, by name.
- F: Extract the last two characters from each line as needed.
- G: Create the shell command with tar(1).
- H: Extract entries from archive file as presented.
- M: Print file between comment per 8 next # in each line.
- N: Set input to a TTY.
- P: Extract full path names of entries.
- T: Print version number of tar(1).

Below this, the "SYNOPSIS" section is shown, which describes how options and arguments are combined on the command line, and provides examples of valid command lines.



The screenshot shows a terminal window titled "Metasploitable2" running on a Windows host. The terminal displays a series of log messages from a MySQL command-line interface. The logs indicate the creation of a new user 'root' with password 'password', the selection of the 'mutillidae' database, and the execution of several SQL commands related to table creation and data insertion. The logs conclude with a message from MySQL stating "Please refer to http://www.mysql.com/for more information about MySQL".

```
[root@Metasploitable2 ~]# mysql -u root -p
Enter password: password
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 12
Server version: 5.5.37-MariaDB-0+deb7u1-log (Ubuntu 14.04.5 LTS)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> CREATE USER 'root'@'%' IDENTIFIED BY 'password';
Query OK, 0 rows affected (0.00 sec)

mysql> GRANT ALL PRIVILEGES ON *.* TO 'root'@'%';
Query OK, 0 rows affected (0.00 sec)

mysql> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.00 sec)

mysql> USE mutillidae;
Database changed
mysql> SHOW TABLES;
+----------------+
| Tables_in_mutillidae |
+----------------+
| comments           |
| users              |
+----------------+
2 rows in set (0.00 sec)

mysql> CREATE TABLE users (
    id INT(11) NOT NULL AUTO_INCREMENT,
    name VARCHAR(255) NOT NULL,
    email VARCHAR(255) NOT NULL,
    password VARCHAR(255) NOT NULL,
    PRIMARY KEY (id)
);
Query OK, 0 rows affected (0.00 sec)

mysql> CREATE TABLE comments (
    id INT(11) NOT NULL AUTO_INCREMENT,
    user_id INT(11) NOT NULL,
    comment_text TEXT NOT NULL,
    PRIMARY KEY (id)
);
Query OK, 0 rows affected (0.00 sec)

mysql> INSERT INTO users (name, email, password) VALUES ('John Doe', 'john.doe@example.com', 'password');
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO users (name, email, password) VALUES ('Jane Doe', 'jane.doe@example.com', 'password');
Query OK, 1 row affected (0.00 sec)

mysql> SELECT * FROM users;
+----+-----+-----+
| id | name | email          |
+----+-----+-----+
| 1  | John | john.doe@example.com |
| 2  | Jane | jane.doe@example.com |
+----+-----+-----+
2 rows in set (0.00 sec)

mysql> SELECT * FROM comments;
+----+-----+-----+
| id | user_id | comment_text |
+----+-----+-----+
+----+-----+-----+
0 rows in set (0.00 sec)

mysql> SHOW TABLES;
+----------------+
| Tables_in_mutillidae |
+----------------+
| comments           |
| users              |
+----------------+
2 rows in set (0.00 sec)

mysql> QUIT;
```

After completing the database setup, Mutillidae II started working successfully without any errors in the browser.

6. Verification Proof

Screenshots were taken as proof of Metasploitable2 running, user creation, snapshot creation, and Mutillidae II working successfully.

7. Conclusion

This project helped in understanding the setup of a vulnerable machine, basic Linux user management, and fixing web application database issues. All tasks were completed successfully as per the project requirements.