Task 4 – Firewall Setup and Testing (Linux UFW)

Q1.Open firewall configuration tool (Windows Firewa l or terminal for UFW)

Enabled UFW and checked status - Firewall was inactive initially, now active with no rules.

```
  ┌──(kali㉿kali)-[~]
  └─$ sudo ufw status
Status: inactive

  ┌──(kali㉿kali)-[~]
  └─$ sudo ufw enable
Firewall is active and enabled on system startup

  ┌──(kali㉿kali)-[~]
  └─$ sudo ufw status numbered
Status: active

  ┌──(kali㉿kali)-[~]
  └─$ sudo ufw deny 23/tcp
Rule added
Rule added (v6)
```
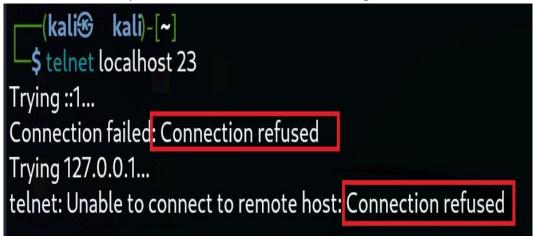
Q2.List current firewall rules.

Q3.Add a rule to block inbound traffic on a specific port (e.g., 23 for Telnet)

Blocked Telnet (port 23) using `ufw deny 23/tcp` and verified with status.

```
  ┌──(kali㉿kali)-[~]
  └─$ sudo ufw allow 22/tcp
Rule added
Rule added (v6)

  ┌──(kali㉿kali)-[~]
  └─$ sudo ufw status numbered
Status: active

    To              Action     From
    --              ------     ----
[ 1] 23/tcp          DENY IN    Anywhere
[ 2] 22/tcp          ALLOW IN   Anywhere
[ 3] 23/tcp (v6)     DENY IN    Anywhere (v6)
[ 4] 22/tcp (v6)     ALLOW IN   Anywhere (v6)
```

Q4.Test the rule by attempting to connect to that port locally or remotely

Attempted Telnet connection after blocking - Connection refused, confirming the block.

Allowed SSH - Verified.

Q5.Add rule to alow SSH (port 22) if on Linux.
Q6.Remove the test block rule to restore original state.

Deleted and added new rules by allowing port 23 and blocked the port 22

```
   ┌──(kali㉿  kali)-[~]
   └─$ sudo ufw delete deny 23/tcp
sudo ufw delete allow 22/tcp

[sudo] password for kali:
Rule deleted
Rule deleted (v6)
Rule deleted
Rule deleted (v6)

   ┌──(kali㉿  kali)-[~]
   └─$ sudo ufw allow 23/tcp
sudo ufw deny 22/tcp

Rule added
Rule added (v6)
Rule added
Rule added (v6)

   ┌──(kali㉿  kali)-[~]
   └─$ sudo ufw status numbered

Status: active

    To                   Action    From
    --                   -------   ----
[1] 23/tcp               ALLOW IN   Anywhere
[2] 22/tcp               DENY IN    Anywhere
[3] 23/tcp (v6)          ALLOW IN   Anywhere (v6)
[4] 22/tcp (v6)          DENY IN    Anywhere (v6)
```

Telnet connection allowed - Successfully connected and prompted for login.

```
┌──(kali㉿kali)-[~]
└─$ telnet localhost 23

Trying ::1...
Connection failed: Connection refused
Trying 127.0.0.1...
Connected to localhost.
Escape character is '^]'.

Linux 6.11.2-amd64 (kali) (pts/3)

kali login: kavish5
Password:
Login incorrect

kali login: kali
Password:
```