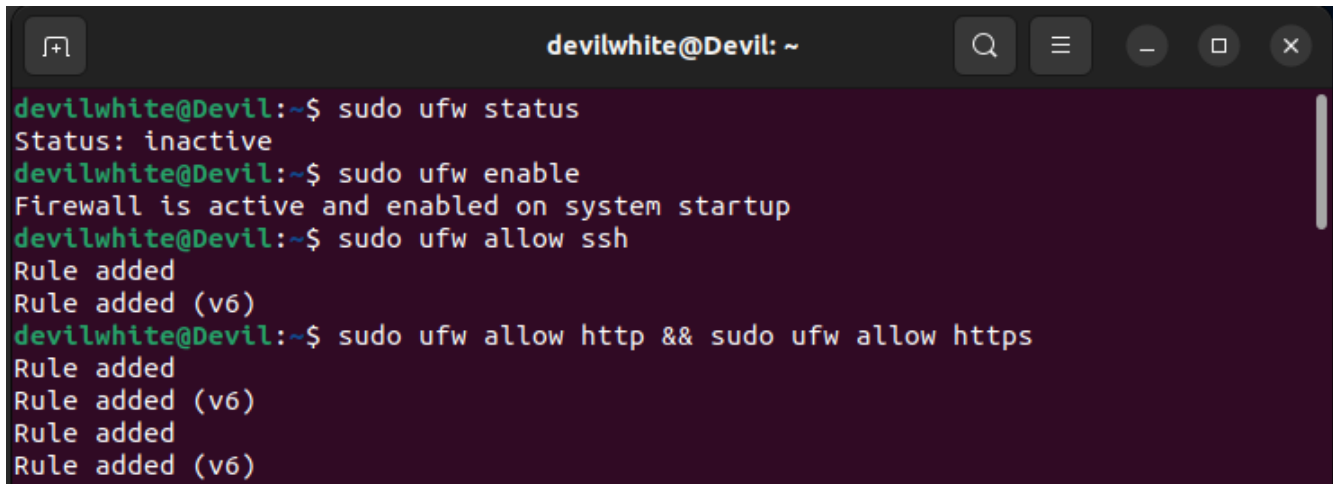


# Cyber Security Basic Tasks

## Task 1: Set Up Basic Firewall Rules

- **Ubuntu Firewall (UFW) Configuration (Enable UFW)**

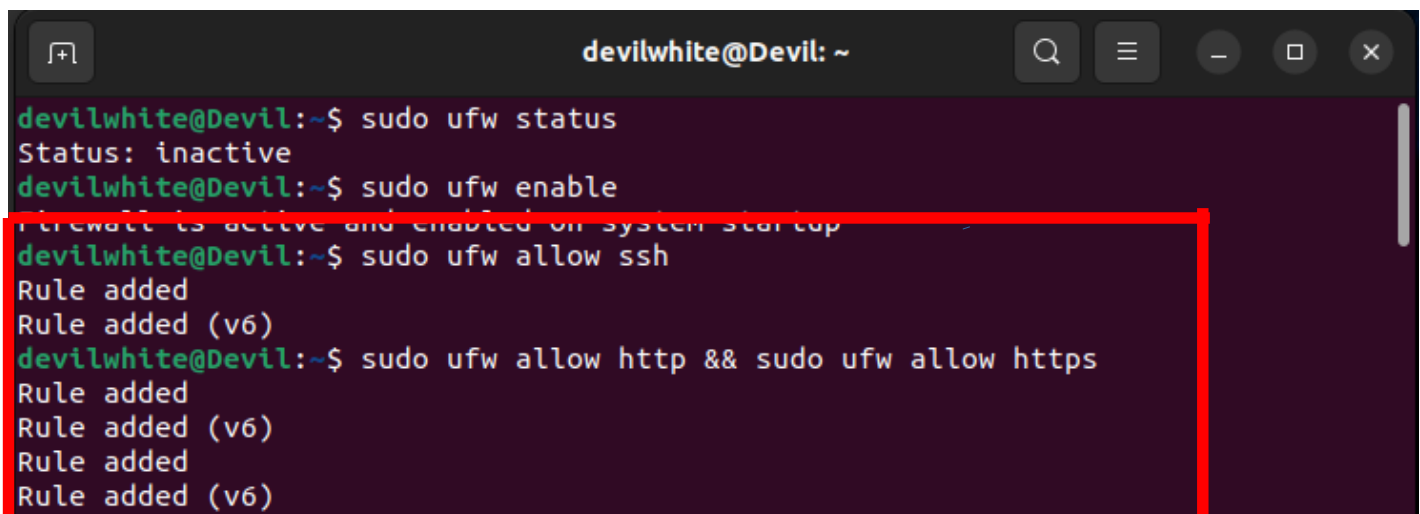
To enable Firewall in Ubuntu run the command: `sudo ufw enable`

A terminal window titled 'devilwhite@Devil: ~' showing the following commands and output:

```
devilwhite@Devil:~$ sudo ufw status
Status: inactive
devilwhite@Devil:~$ sudo ufw enable
Firewall is active and enabled on system startup
devilwhite@Devil:~$ sudo ufw allow ssh
Rule added
Rule added (v6)
devilwhite@Devil:~$ sudo ufw allow http && sudo ufw allow https
Rule added
Rule added (v6)
Rule added
Rule added (v6)
```

- **Allow Specific Applications or Ports:**

To Allow port 22 which is used for ssh: `sudo ufw allow ssh`

A terminal window titled 'devilwhite@Devil: ~' showing the same commands and output as the previous screenshot. The last three lines of the output are highlighted with a red rectangular box:

```
devilwhite@Devil:~$ sudo ufw status
Status: inactive
devilwhite@Devil:~$ sudo ufw enable
Firewall is active and enabled on system startup
devilwhite@Devil:~$ sudo ufw allow ssh
Rule added
Rule added (v6)
devilwhite@Devil:~$ sudo ufw allow http && sudo ufw allow https
Rule added
Rule added (v6)
Rule added
Rule added (v6)
```

To allow Application: `sudo ufw allow app_name`

```
devilwhite@Devil:~$ sudo ufw allow apache
Rule added
Rule added (v6)
devilwhite@Devil:~$
```

- Block Specific Ports or Applications: `sudo ufw deny port_number` && `sudo ufw deny app_name`

```
devilwhite@Devil:~$ sudo ufw deny 8080
Rule added
Rule added (v6)
devilwhite@Devil:~$ sudo ufw deny 8080
Skipping adding existing rule
Skipping adding existing rule (v6)
devilwhite@Devil:~$ sudo ufw deny apache
Rule updated
Rule updated (v6)
devilwhite@Devil:~$
```

- **Advanced Rules:**

Allow traffic from a specific IP: `sudo ufw allow from IP_Address`

```
devilwhite@Devil:~$ sudo ufw allow from 192.168.1.100
Rule added
devilwhite@Devil:~$
```

Deny all incoming connections except those explicitly allowed: `sudo ufw default deny incoming` && `sudo ufw default allow outgoing`

```
devilwhite@Devil:~$ sudo ufw default deny incoming && sudo ufw default allow outgoing
Default incoming policy changed to 'deny'
(be sure to update your rules accordingly)
Default outgoing policy changed to 'allow'
(be sure to update your rules accordingly)
devilwhite@Devil:~$
```

- Check and Apply Changes: `sudo ufw verbose`

```
devilwhite@Devil:~$ sudo ufw status verbose
Status: active
Logging: on (low)
Default: deny (incoming), allow (outgoing), disabled (routed)
New profiles: skip

To Action From
--
22/tcp ALLOW IN Anywhere
80/tcp ALLOW IN Anywhere
443 ALLOW IN Anywhere
80/tcp (Apache) DENY IN Anywhere
8080 DENY IN Anywhere
Anywhere ALLOW IN 192.168.1.100
22/tcp (v6) ALLOW IN Anywhere (v6)
80/tcp (v6) ALLOW IN Anywhere (v6)
443 (v6) ALLOW IN Anywhere (v6)
80/tcp (Apache (v6)) DENY IN Anywhere (v6)
8080 (v6) DENY IN Anywhere (v6)

devilwhite@Devil:~$
```

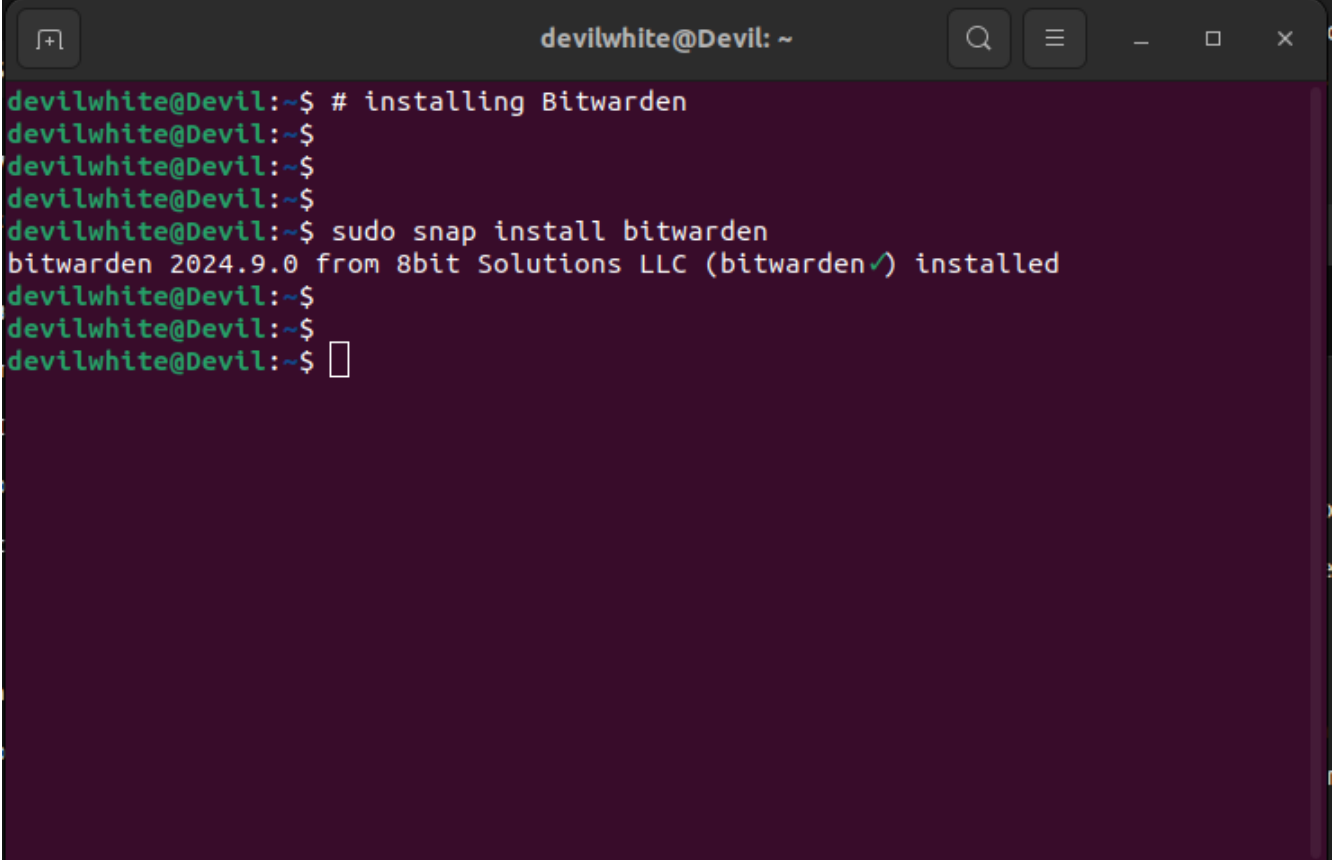
- Disable UFW (if necessary): `sudo ufw disable`

```
devilwhite@Devil:~$ sudo ufw disable
Firewall stopped and disabled on system startup
devilwhite@Devil:~$
```

## Task 2: Use a Password Manager

- Install a Password Manager:

### Bitwarden Installation:

A terminal window with a dark purple background and light green text. The window title bar shows 'devilwhite@Devil: ~' and standard window controls. The terminal output shows the installation of Bitwarden using snap. The user enters '# installing Bitwarden' as a comment, followed by 'sudo snap install bitwarden'. The system responds with 'bitwarden 2024.9.0 from 8bit Solutions LLC (bitwarden✓) installed'. The user then enters three empty lines, each followed by a prompt character.

```
devilwhite@Devil:~$ # installing Bitwarden
devilwhite@Devil:~$
devilwhite@Devil:~$
devilwhite@Devil:~$
devilwhite@Devil:~$ sudo snap install bitwarden
bitwarden 2024.9.0 from 8bit Solutions LLC (bitwarden✓) installed
devilwhite@Devil:~$
devilwhite@Devil:~$
devilwhite@Devil:~$
```

- **Setting Up Bitwarden:**  
**Creating an account**

Bitwarden

File Edit View Account Window Help

### Create account

Email address  
mudasirrasheed18@gmail.com

Master password **Strong**  
.....

**Important:** Your master password cannot be recovered if you forget it! 12 character minimum

Re-type master password  
.....

Master password hint (optional)  
\*\*\*\*

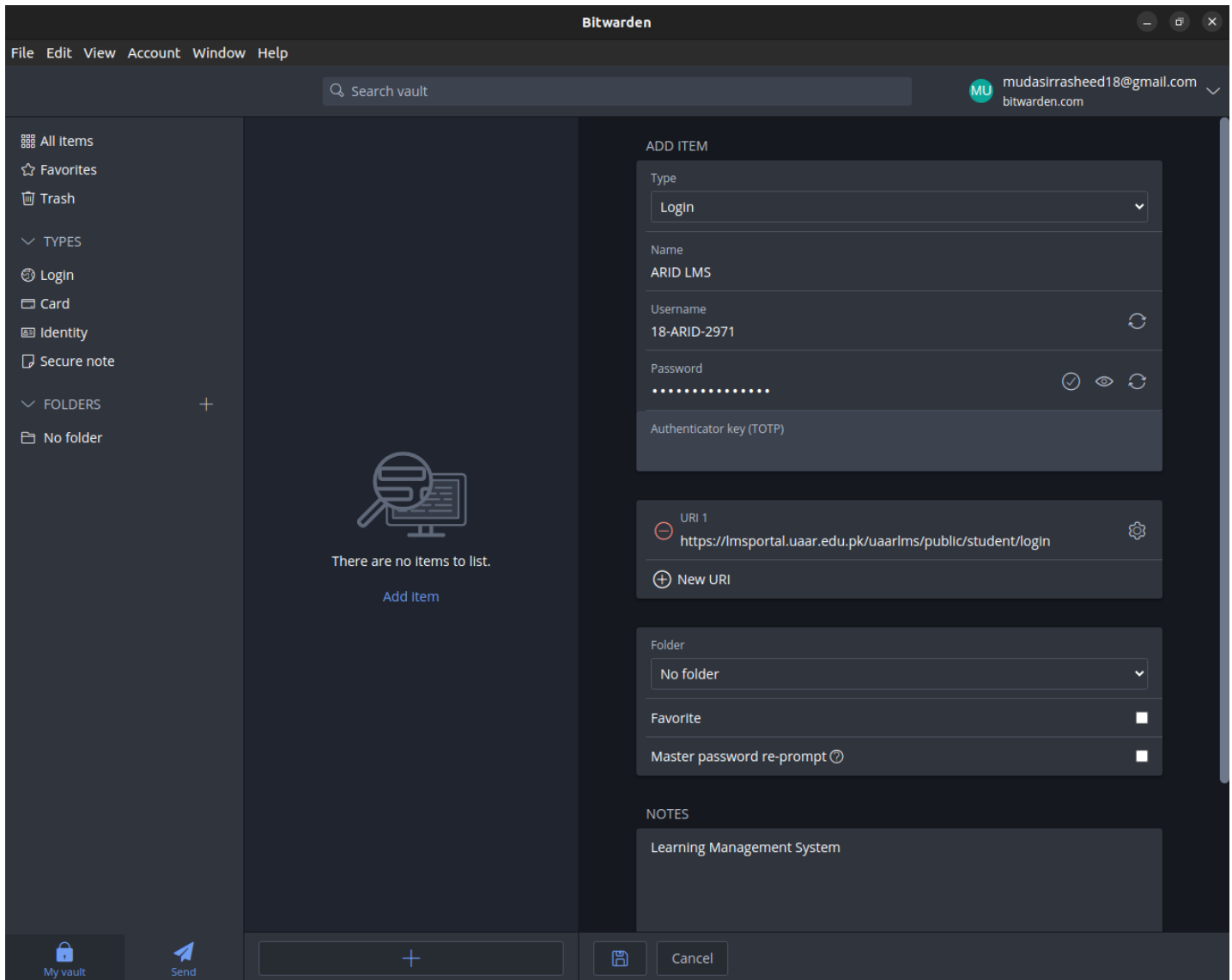
A master password hint can help you remember your password if you forget it.

☒ Check known data breaches for this password

☒ By checking this box you agree to the following:  
[Terms of Service](#), [Privacy Policy](#)

**Submit** Cancel

## Adding Password



## Generating Strong Password Using Bitwarden:

