A firewall is a system that provides network security by filtering incoming and outgoing network traffic based on a set of user-defined rules. In general, the purpose of a firewall is to reduce or eliminate the occurrence of unwanted network communications while allowing all legitimate communication to flow freely. In most server infrastructures, firewalls provide an essential layer of security that, combined with other measures, prevent attackers from accessing your servers in malicious ways.

UFW (Uncomplicated Firewall) act as an interface to IP tables and is designed to simplify the process of configuring a firewall.

Sudo apt-get install ufw

sudo ufw status

sudo ufw status verbose (give the status of rules that are currently active)

sudo ufw status numbered (give the number and rules that are set)

sudo ufw enable

sudo ufw disable

sudo ufw reset (donot use it if you want to delete particular rule)

ufw by default deny all incoming connection and allow all outgoing connections

sudo ufw default deny incoming

sudo ufw default allow outgoing

sudo ufw allow ssh

sudo ufw allow 22

sudo ufw deny ssh

sudo ufw allow http

sudo ufw allow 80

sudo ufw allow https

sudo ufw allow 443

sudo ufw allow proto tcp from any to any port 80,443 (to enable http and https together)

sudo ufw deny proto tcp from any to any port 80,443 (to disable http and https together)

sudo ufw allow ftp

sudo ufw allow 21/tcp

you can deny accesses to your mysql databases

ufw allow from 192.168.1.1

sudo ufw allow from 192.168.1.103 to any port 22 (if you want ip address 192.168.1.103 to access only ssh)

 $sudo\ ufw\ allow\ from\ 192.168.1.103/24\ to\ any\ port\ 22\ (if\ you\ want\ subnet\ addresses\ 192.168.1.103/24)$

to access only ssh)

sudo ufw enable

sudo ufw status

sudo ufw status verbose

sudo ufw status numbered

sudo ufw delete 1

sudo ufw reset