

```
$ cd /.ssh
$ ssh-keygen -t rsa
```

```
fierro98@ubuntu:~/.ssh$ ssh-keygen -t rsa
Generating public/private rsa key pair.
Enter file in which to save the key (/home/fierro98/.ssh/id_rsa):
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/fierro98/.ssh/id_rsa
Your public key has been saved in /home/fierro98/.ssh/id_rsa.pub
The key fingerprint is:
SHA256:cuYYP2iskXUedgVVQdY7IFvehDVX6FqlEnNI2QZdjto fierro98@ubuntu
The key's randomart image is:
+---[RSA 3072]---+
|      .o+OBB= |
|      O==*+= |
|      **=OO |
|      O.+++ |
|      + S . .+E . |
|      + & O . |
|      o = = |
|      + . |
|      . |
+---[SHA256]-----+
fierro98@ubuntu:~/.ssh$ ls
id_rsa id_rsa.pub known_hosts
```

```
$ cd Desktop
$ gedit lab2bash.sh &
```

```
1 #!/bin/bash
2 #### Author: Mahmoud Mohamed Kamal
3 #### Date: 12-04-2022
4 #### Exit Code:
5 ##      0: Done
6
7 PASSWORD="07031998"
8 sshpass -p "$PASSWORD" ssh-copy-id -i ~/.ssh/id_rsa.pub fierro98@192.168.187.134
9 echo $PASSWORD | ssh -t fierro98@192.168.187.134 "sudo -S apt install apache2 -y"
10 exit 0
```

```
$ bash ./lab2bash.sh
```

```
fierro98@ubuntu:~/Desktop$ bash ./lab2bash.sh
/usr/bin/ssh-copy-id: INFO: Source of key(s) to be installed: "/home/fierro98/.ssh/id_rsa.pub"
/usr/bin/ssh-copy-id: INFO: attempting to log in with the new key(s), to filter out any that are already installed
/usr/bin/ssh-copy-id: WARNING: All keys were skipped because they already exist on the remote system.
(if you think this is a mistake, you may want to use -f option)

Pseudo-terminal will not be allocated because stdin is not a terminal.
[sudo] password for fierro98:
WARNING: apt does not have a stable CLI interface. Use with caution in scripts.

Reading package lists...
Building dependency tree...
The following additional packages will be installed:
  apache2-bin apache2-data apache2-utils libapr1 libaprutil1
  libaprutil1-dbd-sqlite3 libaprutil1-ldap liblua5.2-0
Suggested packages:
  apache2-doc apache2-suexec-pristine | apache2-suexec-custom
The following NEW packages will be installed:
  apache2 apache2-bin apache2-data apache2-utils libapr1 libaprutil1
  libaprutil1-dbd-sqlite3 libaprutil1-ldap liblua5.2-0
0 upgraded, 9 newly installed, 0 to remove and 78 not upgraded.
Need to get 1,820 kB of archives.
After this operation, 7,945 kB of additional disk space will be used.
Get:1 http://us.archive.ubuntu.com/ubuntu focal/main amd64 libapr1 amd64 1.6.5-1ubuntu1 [91.4 kB]
Get:2 http://us.archive.ubuntu.com/ubuntu focal/main amd64 libaprutil1 amd64 1.6.1-4ubuntu2 [84.7 kB]
Get:3 http://us.archive.ubuntu.com/ubuntu focal/main amd64 libaprutil1-dbd-sqlite3 amd64 1.6.1-4ubuntu2 [10.5 kB]
Get:4 http://us.archive.ubuntu.com/ubuntu focal/main amd64 libaprutil1-ldap amd64 1.6.1-4ubuntu2 [8,736 B]
Get:5 http://us.archive.ubuntu.com/ubuntu focal/main amd64 liblua5.2-0 amd64 5.2.4-1.1build3 [106 kB]
Get:6 http://us.archive.ubuntu.com/ubuntu focal-updates/main amd64 apache2-bin amd64 2.4.41-4ubuntu3.10 [1,181 kB]
Get:7 http://us.archive.ubuntu.com/ubuntu focal-updates/main amd64 apache2-data all 2.4.41-4ubuntu3.10 [158 kB]
Get:8 http://us.archive.ubuntu.com/ubuntu focal-updates/main amd64 apache2-utils amd64 2.4.41-4ubuntu3.10 [84.5 kB]
Get:9 http://us.archive.ubuntu.com/ubuntu focal-updates/main amd64 apache2 amd64 2.4.41-4ubuntu3.10 [95.5 kB]
debconf: unable to initialize frontend: Dialog
debconf: (Dialog frontend will not work on a dumb terminal, an emacs shell buffer, or without a controlling terminal.)
debconf: falling back to frontend: Readline
debconf: unable to initialize frontend: Readline
debconf: (This frontend requires a controlling tty.)
debconf: falling back to frontend: Teletype
dpkg-preconfigure: unable to re-open stdin:
Fetched 1,820 kB in 12s (148 kB/s)
Selecting previously unselected package libapr1:amd64.
(Reading database ... 162494 files and directories currently installed.)
Preparing to unpack .../libapr1_1.6.5-1ubuntu1_amd64.deb ...
Unpacking libapr1:amd64 (1.6.5-1ubuntu1) ...
Preparing to unpack .../libaprutil1_1.6.1-4ubuntu2_amd64.deb ...
Unpacking libaprutil1:amd64 (1.6.1-4ubuntu2) ...
Preparing to unpack .../libaprutil1-dbd-sqlite3_1.6.1-4ubuntu2_amd64.deb ...
Unpacking libaprutil1-dbd-sqlite3:amd64 (1.6.1-4ubuntu2) ...
Preparing to unpack .../libaprutil1-ldap_1.6.1-4ubuntu2_amd64.deb ...
Unpacking libaprutil1-ldap:amd64 (1.6.1-4ubuntu2) ...
Preparing to unpack .../liblua5.2-0_5.2.4-1.1build3_amd64.deb ...
Unpacking liblua5.2-0:amd64 (5.2.4-1.1build3) ...
Selecting previously unselected package apache2.
Preparing to unpack .../apache2_2.4.41-4ubuntu3.10_amd64.deb ...
Unpacking apache2 (2.4.41-4ubuntu3.10) ...
Setting up libapr1:amd64 (1.6.5-1ubuntu1) ...
Setting up libaprutil1:amd64 (1.6.1-4ubuntu2) ...
Setting up libaprutil1-dbd-sqlite3:amd64 (1.6.1-4ubuntu2) ...
Setting up libaprutil1-ldap:amd64 (1.6.1-4ubuntu2) ...
Setting up liblua5.2-0:amd64 (5.2.4-1.1build3) ...
Setting up apache2 (2.4.41-4ubuntu3.10) ...
Enabling module authn_core.
Enabling module authz_core.
Enabling module alias.
Enabling module dir.
Enabling module autoindex.
Enabling module env.
Enabling module mime.
Enabling module negotiation.
Enabling module setenvif.
Enabling module filter.
Enabling module deflate.
Enabling module status.
Enabling module reqtimeout.
Enabling conf charset.
Enabling conf localized-error-pages.
Enabling conf other-vhosts-access-log.
Enabling conf security.
Enabling conf serve-cgi-bin.
Enabling site 000-default.
Created symlink /etc/systemd/system/multi-user.target.wants/apache2.service → /lib/systemd/system/apache2.service.
Created symlink /etc/systemd/system/multi-user.target.wants/apache-htcacheclean.service → /lib/systemd/system/apache-htcacheclean.service.
Processing triggers for ufw (0.36-6) ...
Processing triggers for systemd (245.4-4ubuntu3.15) ...
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for libc-bin (2.31-0ubuntu9.7) ...
```