**CREATING RSA KEYS**

**Vedantsahai18@Vedantsahai18 ~ % ssh-keygen**

Generating public/private rsa key pair.

Enter file in which to save the key (/Users/ Vedantsahai18 /.ssh/id\_rsa):

/Users/ Vedantsahai18 /.ssh/id\_rsa already exists.

Overwrite (y/n)? y

Enter passphrase (empty for no passphrase):

Enter same passphrase again:

Your identification has been saved in /Users/ Vedantsahai18 /.ssh/id\_rsa.

Your public key has been saved in /Users/ Vedantsahai18 /.ssh/id\_rsa.pub.

The key fingerprint is:

SHA256:MvQ/KMjuNwNy4vRCBpDwvSchO0yTKHVkrBipm32yHlg

Vedantsahai18@ Vedantsahai18.local

The key's randomart image is:

+---[RSA 2048]----+

|oo.o+ |

|=+ =. |

|=o\*.o . |

|=o.+ + . |

| =E o + S |

|ooOo++ o o |

|.=.Oo.. . o |

| +o. +. . |

| ..oo. o |

+----[SHA256]-----+

**Vedantsahai18@ Vedantsahai18 ~ % cat ~/.ssh/id\_rsa.pub**

ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAABAQC2ualK4/wpTdmEh6tsfTFaCIGBr/H9CWgTEZ4dwHQ1kjtjabr3FMJ+WZNN4688t3JjUPPu0mpEpfQQiLPgC+8vxRG/Z5eLpKG8vHpdKjjJhV1WirsPiaw70vGcsj5e5QCjCYxE8oW8Dr30SbQ1ZGWMA68o1RqxHDTpm2/edPh7Ls8BPJPHVURvKOlYrRLwhJD7vQkp6MCaDqOOfvtc7BIxzXyyhmDfzL51cbgpXZIgJN2fCrJZkrTk+wpdxghX2C9UOPz4rV65mpTYnJa3lG86aw1byGRykYNK5mpoqfFRLSjmD/jBIJ1wJCQf/f7umep61TvW83lMEod7XeSNWGzt kad99kev@kad99kev.local

**Vedantsahai18@ Vedantsahai18~ % ssh-copy-id -i ~/.ssh/id\_rsa.pub stan@192.168.1.5**

/usr/bin/ssh-copy-id: INFO: Source of key(s) to be installed: "/Users/Vedantsahai18 /.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: INFO: 1 key(s) remain to be installed -- if you are prompted now it is to install the new keys

Password:

Password:

Password:

stan@192.168.1.5's password:

Number of key(s) added: 1

Now try logging into the machine, with: "ssh 'stan@192.168.1.5'"

and check to make sure that only the key(s) you wanted were added.

**Vedantsahai18@ Vedantsahai18~ % ssh stan@192.168.1.5**

Last login: Tue Mar 24 16:40:14 2020 from 192.168.1.46

The default interactive shell is now zsh.

To update your account to use zsh, please run `chsh -s /bin/zsh`.

For more details, please visit https://support.apple.com/kb/HT208050.

**Vedantsahai18:~ stan$ cat .ssh/authorized\_keys**

ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAABAQD45fottxKkRD8Eeli+wYOLgGRlNzh6H7Y/ddlFBATHuRQ75AGZQB5wnO+RIeWdHX+k+GtSP36Xdcm0BpTank8SEhlqHHAC0AMVPEdGzxleCs1PrB3E2/6pqHPi7tvM5NpFrO/9pD1IbJnv3zpvXvShdn28n7LbEEGlrilC5YrE9WMUVl5WXzPeQM84MazBglGMLSrv3LCwfS1CGSg33p8RbbYn6qPs/eVJEFm25yjpU/Pn755VG44oKEvbk0lLwXHe77xQcCFTsCLlBnPybuqcIT4fwqTydfRSKyBdKSdRtFDwYzoPEm1y2Isz5H0mr2fkqTivtLRCrW12rWT0f3AJ kad99kev@kad99kev.local

**Vedantsahai18:~ stan$ exit**

logout

Connection to 192.168.1.5 closed.

**Vedantsahai18@ Vedantsahai18 ~ % ssh stan@192.168.1.5**

Last login: Tue Mar 24 18:19:12 2020 from 192.168.1.46

The default interactive shell is now zsh.

To update your account to use zsh, please run `chsh -s /bin/zsh`.

For more details, please visit https://support.apple.com/kb/HT208050.

**Vedantsahai18:~ stan$**

**ADDING AND RESTRICTING USERS**

There are three users on the server: stan, andy and vedantsahai

IP address of server is 192.168.1.5

Navigate to /etc/ssh/sshd\_config on the server and at the bottom enter the following line.

**Allowing access to vedantsahai**

AllowUsers vedantsahai @192.168.1.5

We are trying to ssh from 192.168.1.46

**When logging in from vedantsahai**

**Vedantsahai18@Vedantsahai18 ssh % ssh vedantsahai @192.168.1.5**

Password:

vedantsahai @Vedantsahai18 ~ % whoami

vedantsahai

vedantsahai @Vedantsahai18 ~ %

**When logging in from stan**

**Vedantsahai18@Vedantsahai18 ssh % ssh stan@192.168.1.5**

Password:

Password:

Password:

stan@192.168.1.5's password:

bPermission denied, please try again.

stan@192.168.1.5's password:

Received disconnect from 192.168.1.5 port 22:2: Too many authentication failures

Disconnected from 192.168.1.5 port 22

**When logging in from andy**

**Vedantsahai18@Vedatsahai18 ~ % ssh andy@192.168.1.5**

Password:

Password:

Password:

andy@192.168.1.5's password:

Permission denied, please try again.

andy@192.168.1.5's password:

Received disconnect from 192.168.1.5 port 22:2: Too many authentication failures

Disconnected from 192.168.1.5 port 22

Similar process for Denying Users

**Denying access to vedantsahai**

DenyUsers vedantsahai@192.168.1.5

**When logging in from vedantsahai**

**Vedantsahai18@Vedantsahai18 ssh % ssh vedantsahai@192.168.1.5**

Password:

Password:

Password:

vedantsahai@192.168.1.5's password:

Permission denied, please try again.

dantsahai

Received disconnect from 192.168.1.5 port 22:2: Too many authentication failures

Disconnected from 192.168.1.5 port 22

**When logging in from stan (Direct login due to RSA keys)**

**Vedantsahai18@Vedantsahai18~ % ssh stan@192.168.1.5**

Last login: Thu Mar 26 18:29:51 2020 from 192.168.1.46

The default interactive shell is now zsh.

To update your account to use zsh, please run `chsh -s /bin/zsh`.

For more details, please visit https://support.apple.com/kb/HT208050.

Vedantsahai18:~ stan$ whoami

stan

Vedatsahai18:~ stan$

**When logging in from andy**

**Vedatsahai18@ Vedatsahai18 ~ % ssh andy@192.168.1.5**

Password:

The default interactive shell is now zsh.

To update your account to use zsh, please run `chsh -s /bin/zsh`.

For more details, please visit https://support.apple.com/kb/HT208050.

Vedantsahai18:~ andy$ whoami

andy

Vedantsahai18:~ andy$

**CHANGING PASSWORDS**

Vedantsahai18:~ stan$ passwd

Changing password for stan.

Old Password:

New Password:

Retype New Password:

Vedantsahai18:~ stan$