

Practice Linux using a cloud compute instance

Note that most of the infrastructure as a service with cloud platform provides Linux Compute Instances (free eligible – primary level). Students can practice basic Linux commands and also learn more about cloud platforms and other services.

The primary protocol for establishing remote connection is SSH.

1. Create a free-tier account
2. Login and create a compute instance
 - 2.1 Download ssh public and private keys.
3. Know the public ip of compute instance.
4. Connect to compute instance (on a cloud) using ssh client like putty, xshell, terminal, etc.
 - 4.1 The file permissions of public key need to be modified as part of safety requirement.
5. Terminate the instance.

```
myMac - opc@instance-20210108-1324:~ - Xshell 7 (Free for Home/School)
File Edit View Tools Tab Window Help
ssh://192.168.0.146:22
To add the current session, click on the left arrow button.
1 myMac x 2 Local Shell x +
Jigar-Pandyas-MacBook:~$ ls -l *
-rw-r--r-- 1 JigarPandya staff 1675 Jan 8 13:45 ssh-key-2021-01-08.key
-rw-r--r-- 1 JigarPandya staff 399 Jan 8 13:45 ssh-key-2021-01-08.key.pub
Jigar-Pandyas-MacBook:~$ ssh opc@140.238.226.40 -i ssh-key-2021-01-08.key
The authenticity of host '140.238.226.40 (140.238.226.40)' can't be established.
ECDSA key fingerprint is SHA256:IWHdFumA3FslbQFrgfesK70q6RIqcf0HmMYLJzDIhzQ.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '140.238.226.40' (ECDSA) to the list of known hosts.
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@ WARNING: UNPROTECTED PRIVATE KEY FILE! @
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
Permissions 0644 for 'ssh-key-2021-01-08.key' are too open.
It is required that your private key files are NOT accessible by others.
This private key will be ignored.
Load key "ssh-key-2021-01-08.key": bad permissions
opc@140.238.226.40: Permission denied (publickey,gssapi-keyex,gssapi-with-mic).
Jigar-Pandyas-MacBook:~$ chmod 444 ssh-key-2021-01-08.key
Jigar-Pandyas-MacBook:~$ ls -l *
-r--r--r-- 1 JigarPandya staff 1675 Jan 8 13:45 ssh-key-2021-01-08.key
-rw-r--r-- 1 JigarPandya staff 399 Jan 8 13:45 ssh-key-2021-01-08.key.pub
Jigar-Pandyas-MacBook:~$ ssh opc@140.238.226.40 -i ssh-key-2021-01-08.key
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@ WARNING: UNPROTECTED PRIVATE KEY FILE! @
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
Permissions 0444 for 'ssh-key-2021-01-08.key' are too open.
It is required that your private key files are NOT accessible by others.
This private key will be ignored.
Load key "ssh-key-2021-01-08.key": bad permissions
opc@140.238.226.40: Permission denied (publickey,gssapi-keyex,gssapi-with-mic).
Jigar-Pandyas-MacBook:~$ chmod 400 ssh-key-2021-01-08.key
Jigar-Pandyas-MacBook:~$ ssh opc@140.238.226.40 -i ssh-key-2021-01-08.key
[opc@instance-20210108-1324 ~]$ whoami
opc
[opc@instance-20210108-1324 ~]$ exit
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