

# U18ISI5006 - Cloud Computing Architecture

## Linux Instance creation using AWS

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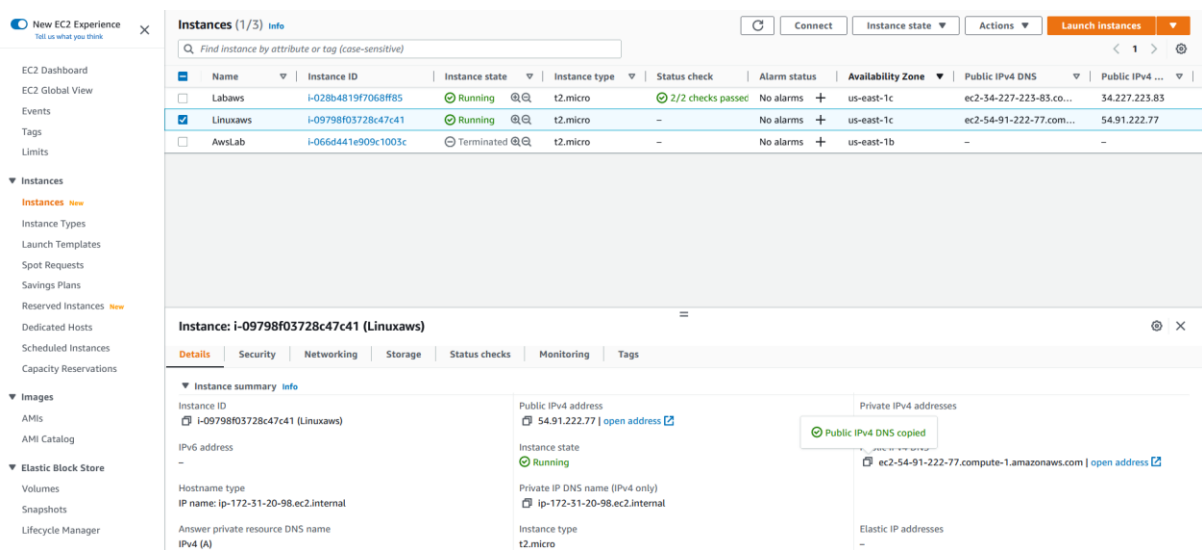
Topic : Linux Instance creation using AWS

Linux instance creation:

1.Connecting the Linux instance through **pem key** using **ssh commands** :

**ssh command :**

`ssh -i [location of pem key] instance_username@instance_dns_address`



The screenshot displays the AWS Management Console interface for the 'Instances' section. On the left, a navigation menu includes options like 'EC2 Dashboard', 'Instances', 'Images', and 'Elastic Block Store'. The main area shows a table of instances with columns for Name, Instance ID, Instance state, Instance type, Status check, Alarm status, Availability Zone, Public IPv4 DNS, and Public IPv4 address. Three instances are listed: 'Labaws', 'Linuxaws', and 'AwsLab'. The 'Linuxaws' instance is highlighted with a blue row and a checkmark in the selection column. Below the table, the details for the selected 'Linuxaws' instance (ID: i-09798f03728c47c41) are shown. The 'Instance summary' tab is active, displaying fields such as Instance ID, Instance type (t2.micro), Instance state (Running), Hostname type, Private IP DNS name, and Private IP address. A tooltip indicates that the public IPv4 address '54.91.222.77' has been copied.

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4 address
Labaws	i-028b4819f7068ff85	Running	t2.micro	2/2 checks passed	No alarms	us-east-1c	ec2-34-227-223-83.co...	34.227.223.83
Linuxaws	i-09798f03728c47c41	Running	t2.micro	-	No alarms	us-east-1c	ec2-54-91-222-77.com...	54.91.222.77
AwsLab	i-0666441e909c1003c	Terminated	t2.micro	-	No alarms	us-east-1b	-	-

**Instance: i-09798f03728c47c41 (Linuxaws)**

**Instance summary**

Instance ID: i-09798f03728c47c41 (Linuxaws)

Instance type: t2.micro

Instance state: Running

Hostname type: ip-172-31-20-98.ec2.internal

Private IP DNS name (IPv4 only): ip-172-31-20-98.ec2.internal

Private IP address: ip-172-31-20-98.ec2.internal

Public IPv4 address: 54.91.222.77 | open address

Private IPv4 addresses: ec2-54-91-222-77.compute-1.amazonaws.com | open address

## Linux instance :

```

Microsoft Windows [Version 10.0.22621.819]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Asus>ssh -i C:\Users\Asus\Downloads\labaws.pem ec2-user@ec2-54-91-222-77.compute-1.amazonaws.com
The authenticity of host 'ec2-54-91-222-77.compute-1.amazonaws.com (54.91.222.77)' can't be established.
ED25519 key fingerprint is SHA256:SP2qn/ktLjj7r8w3ihtFptWSyXtXj3Gt95XRIGV+7bg.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-54-91-222-77.compute-1.amazonaws.com' (ED25519) to the list of known hosts.

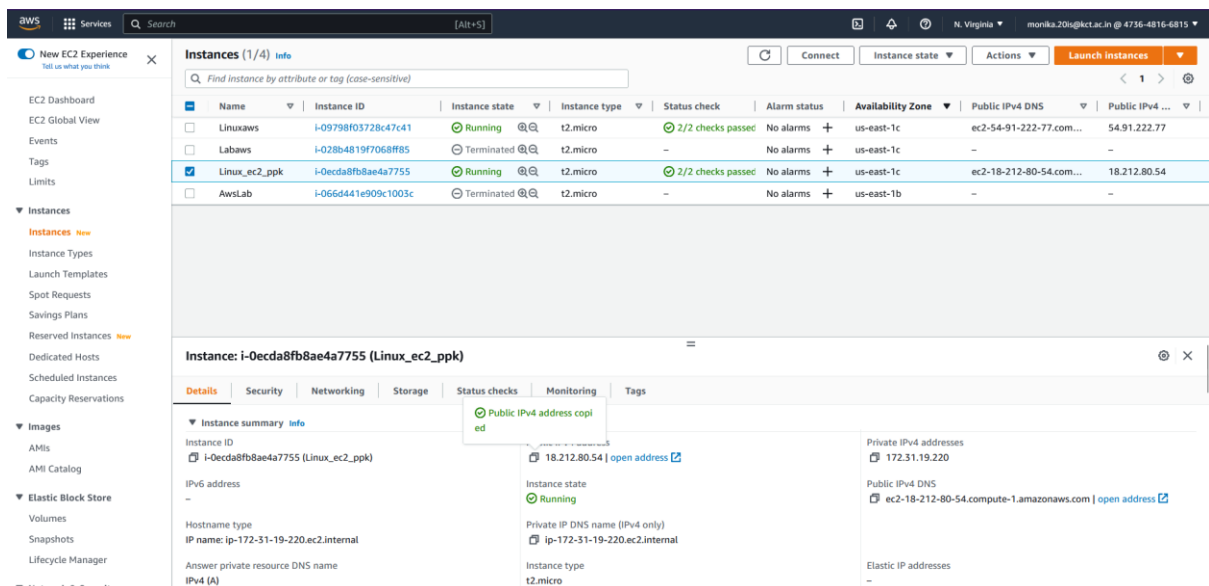
    __|  __|_  )
    _| (  _/   Amazon Linux 2 AMI
    ---|\\---|---|

https://aws.amazon.com/amazon-linux-2/
19 package(s) needed for security, out of 31 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-20-98 ~]$ ls
[ec2-user@ip-172-31-20-98 ~]$ mkdir moni
[ec2-user@ip-172-31-20-98 ~]$ ls
moni
[ec2-user@ip-172-31-20-98 ~]$ |

```

## 2.Connecting Linux instance through ppk key using putty:

[ no conversion needed, just use ppk format while creating key]

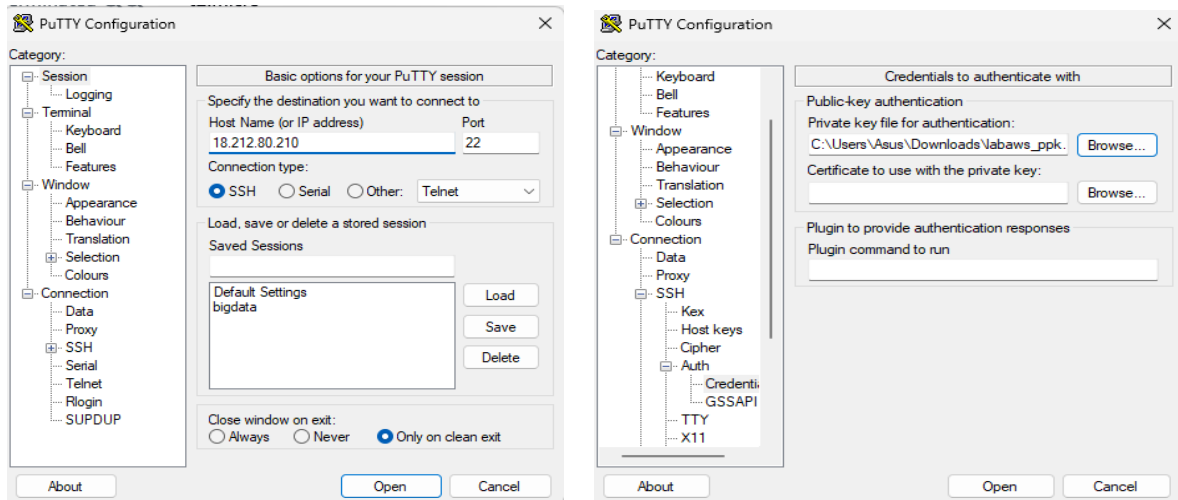


Putty :

Host name = public ip address of ec2

Ssh->auth->import ppk key

Press open



Linux instance :

```
login as: ec2-user
Authenticating with public key "linux_ppk"

 _ _ | _ _ | _ )
 _ | ( _ /   Amazon Linux 2 AMI
 _ | \ _ | _ |

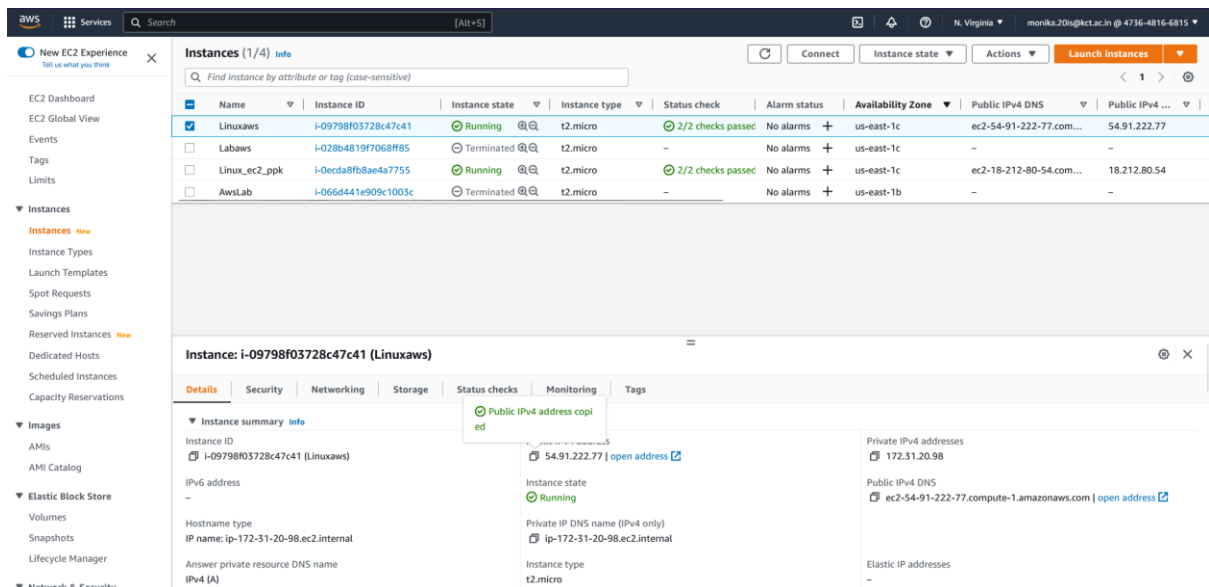
https://aws.amazon.com/amazon-linux-2/
19 package(s) needed for security, out of 31 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-19-220 ~]$ ipconfig
-bash: ipconfig: command not found
[ec2-user@ip-172-31-19-220 ~]$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 9001
    inet 172.31.19.220  netmask 255.255.240.0  broadcast 172.31.31.255
    inet6 fe80::853:cff:fe5c:c203  prefixlen 64  scopeid 0x20<link>
    ether 0a:53:0c:5c:c2:03  txqueuelen 1000  (Ethernet)
    RX packets 69968  bytes 110347409 (105.2 MiB)
    RX errors 0  dropped 0  overruns 0  frame 0
    TX packets 7471  bytes 473205 (462.1 KiB)
    TX errors 0  dropped 0  overruns 0  carrier 0  collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
    inet 127.0.0.1  netmask 255.0.0.0
    inet6 ::1  prefixlen 128  scopeid 0x10<host>
    loop txqueuelen 1000  (Local Loopback)
    RX packets 48  bytes 3888 (3.7 KiB)
    RX errors 0  dropped 0  overruns 0  frame 0
    TX packets 48  bytes 3888 (3.7 KiB)
    TX errors 0  dropped 0  overruns 0  carrier 0  collisions 0

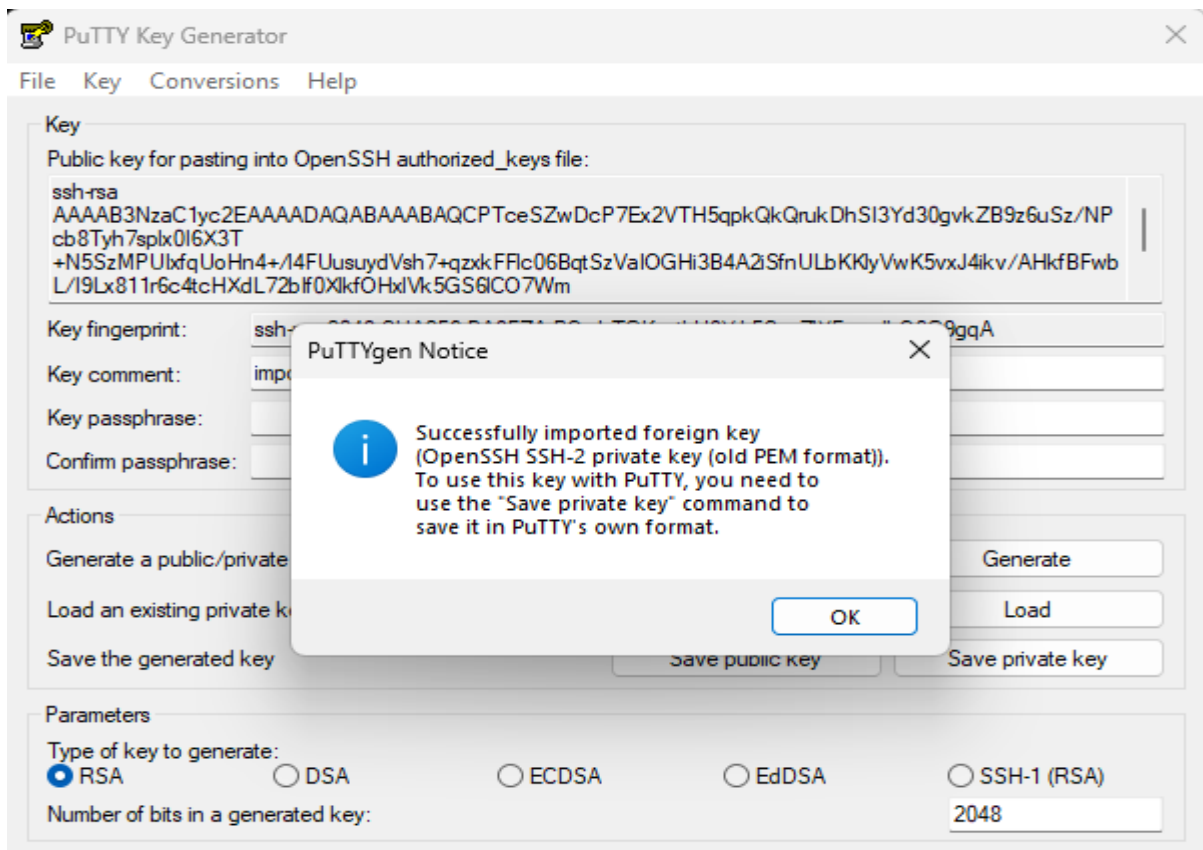
[ec2-user@ip-172-31-19-220 ~]$
```

### 3.Connection through pem key using puttygen and putty:

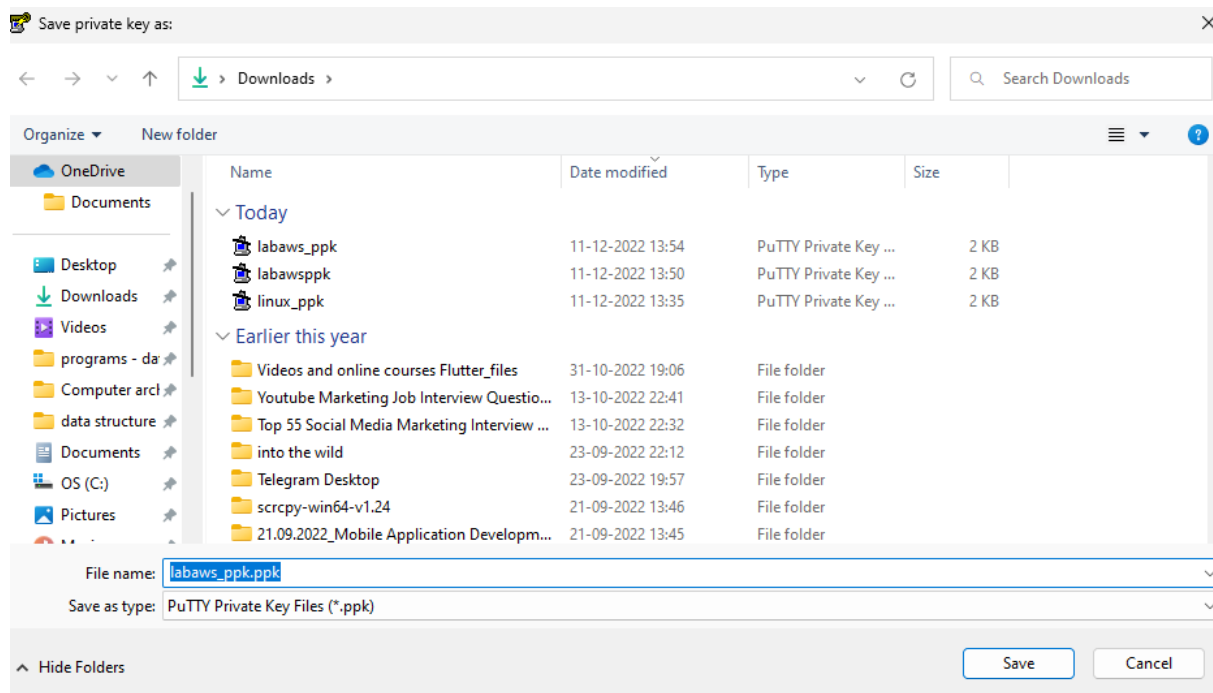
[conversion of pem into ppk using puttygen, then import host name , ppk key in putty (followed in 2<sup>nd</sup> connection process)]



Pem conversion to ppk using puttygen :



*Saving ppk key format:*



*Linux instance connected :*

```
login as: ec2-user
Authenticating with public key "imported-openssh-key"
Last login: Sun Dec 11 08:02:02 2022 from 157.51.112.16

 _ _ | _ _ | _ )
 _ | ( _ _ /   Amazon Linux 2 AMI
 _ _ | \ _ _ | _ _ |

https://aws.amazon.com/amazon-linux-2/
19 package(s) needed for security, out of 31 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-20-98 ~]$ ls
monit
[ec2-user@ip-172-31-20-98 ~]$ mkdir awslab
[ec2-user@ip-172-31-20-98 ~]$ ls
awslab  monit
[ec2-user@ip-172-31-20-98 ~]$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 9001
    inet 172.31.20.98  netmask 255.255.240.0  broadcast 172.31.31.255
    inet6 fe80::8ad:4fff:fede:8c2b  prefixlen 64  scopeid 0x20<link>
    ether 0a:ad:4f:de:8c:2b  txqueuelen 1000  (Ethernet)
    RX packets 28502  bytes 108958583 (103.9 MiB)
    RX errors 0  dropped 0  overruns 0  frame 0
    TX packets 4470  bytes 341503 (333.4 KiB)
    TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

lo:  flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
    inet 127.0.0.1  netmask 255.0.0.0
    inet6 ::1  prefixlen 128  scopeid 0x10<host>
    loop txqueuelen 1000  (Local Loopback)
    RX packets 48  bytes 3888 (3.7 KiB)
    RX errors 0  dropped 0  overruns 0  frame 0
    TX packets 48  bytes 3888 (3.7 KiB)
    TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

[ec2-user@ip-172-31-20-98 ~]$
```