

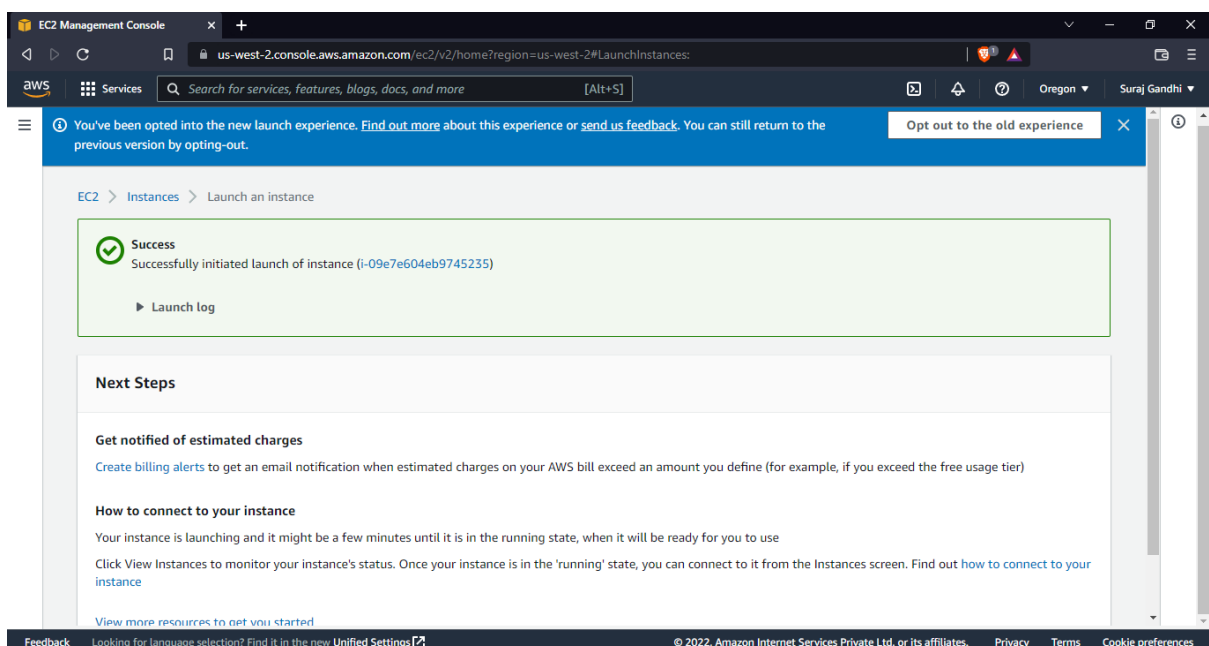
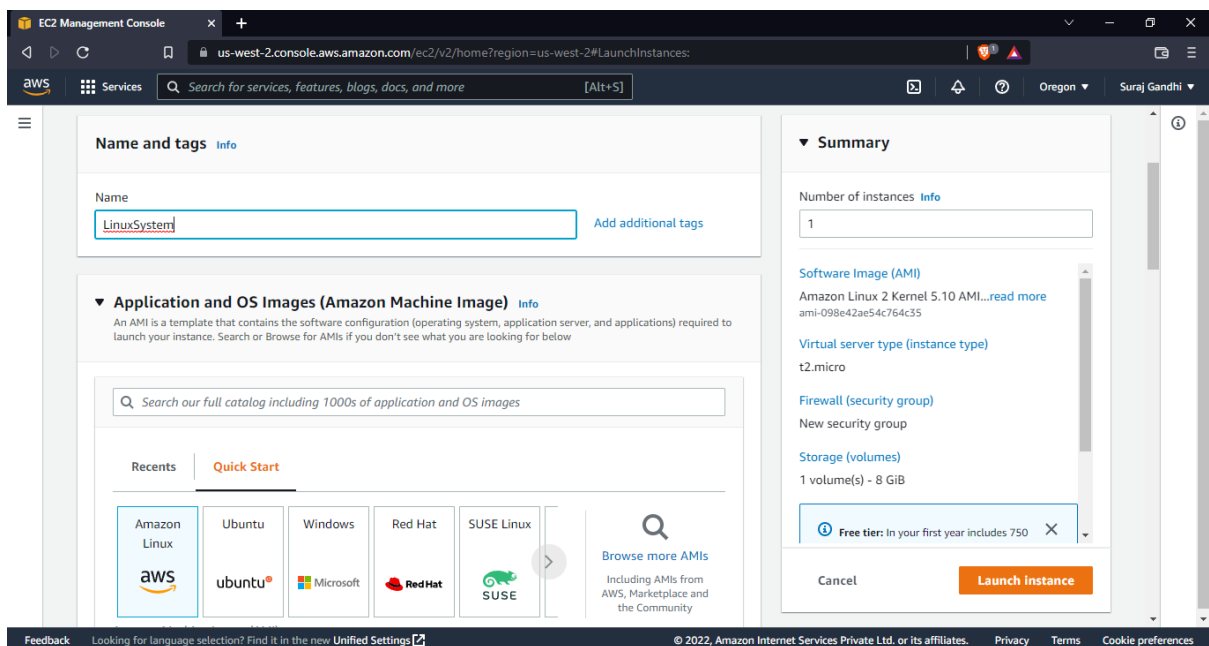
Tutorial 2 a): Create amazon linux ec2 instance | t2 micro & install Apache web server into it and Test it for webpage.

Name – Suraj Gandhi

Roll No – 01

PRN No – 1132210013

Course – MSc (DSBDA)





Key

Public key for pasting into OpenSSH authorized_keys file:

```
ssh-rsa
AAAAB3NzaC1yc2EAAAADAQABAAQDHWR7Shi7Dvdax8eRG13jhhMdiimpzgNZ/B2o2JMAzoAj3Ct6wQU4I
Qwd3lVBI3iHEofdT3/gUlwlidy98aVSuXViyYwJKsrMKxEVWw
+4pzHXp7lUDRLcE65v4TIHHJSdB1DP5KDechlrfUqm290jjiMP2F0jghvbG9/g2SkQL5O5ozKYXoNBzlzE2Gnz
Jb2a2HCHCofgwj/hJRuMRcUP8Dj/gHOSwAaLdDgXrJ
```

Key fingerprint: ssh-rsa 2048 SHA256:/uDNoD8Dsd1UPzZdDAYJ6OnxDm2BtEDocWB2FS5kKak

Key comment: imported-openssh-key

Key passphrase:

Confirm passphrase:

Actions

Generate a public/private key pair

Generate

Load an existing private key file

Load

Save the generated key

Save public key

Save private key


Parameters

Type of key to generate:

☒ RSA☐ DSA☐ ECDSA☐ EdDSA☐ SSH-1 (RSA)

Number of bits in a generated key:

2048

 PuTTY Configuration ? X

Category:

- Session
 - Logging
- Terminal
 - Keyboard
 - Bell
 - Features
- Window
 - Appearance
 - Behaviour
 - Translation
 - Selection
 - Colours
- Connection
 - Data
 - Proxy
 - SSH
 - Serial
 - Telnet
 - Rlogin
 - SUPDUP

Basic options for your PuTTY session

Specify the destination you want to connect to


Host Name (or IP address) Port

Connection type:
☒ SSH ☐ Serial ☐ Other:

Load, save or delete a stored session

Saved Sessions

Close window on exit:
☐ Always ☐ Never ☒ Only on clean exit

 PuTTY Configuration ? X

Category:

- Session
 - Logging
- Terminal
 - Keyboard
 - Bell
 - Features
- Window
 - Appearance
 - Behaviour
 - Translation
 - Selection
 - Colours
- Connection
 - Data
 - Proxy
 - SSH
 - Serial
 - Telnet
 - Rlogin
 - SUPDUP

Data to send to the server

Login details

Auto-login username

When username is not specified:
☒ Prompt ☐ Use system username (SURAJ)

Terminal details

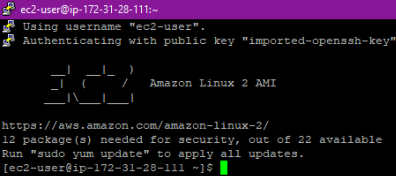
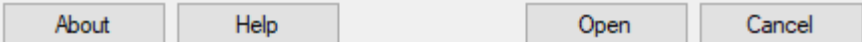
Terminal-type string

Terminal speeds

Environment variables

Variable

Value



```
ec2-user@ip-172-31-28-111:~$ sudo yum update -y
```

```
ec2-user@ip-172-31-28-111:~$ sudo yum update -y
Verifying : 2:vim-enhanced-8.2.5172-1.amzn2.0.1.x86_64 15/43
Verifying : 2:vim-filesystem-8.2.5172-1.amzn2.0.1.noarch 16/43
Verifying : iproute-5.10.0-2.amzn2.0.3.x86_64 17/43
Verifying : glibc-2.26-59.amzn2.x86_64 18/43
Verifying : 2:vim-common-8.2.5172-1.amzn2.0.1.x86_64 19/43
Verifying : systemtap-runtime-4.5-1.amzn2.0.1.x86_64 20/43
Verifying : glibc-locale-source-2.26-59.amzn2.x86_64 21/43
Verifying : libcrypt-2.26-59.amzn2.x86_64 22/43
Verifying : yum-3.4.3-158.amzn2.0.5.noarch 23/43
Verifying : systemtap-runtime-4.4-1.amzn2.0.2.x86_64 24/43
Verifying : 2:vim-enhanced-8.2.4857-1.amzn2.0.1.x86_64 25/43
Verifying : libxml2-python-2.9.1-6.amzn2.5.4.x86_64 26/43
Verifying : libxml2-2.9.1-6.amzn2.5.4.x86_64 27/43
Verifying : expat-2.1.0-12.amzn2.0.4.x86_64 28/43
Verifying : iproute-5.10.0-2.amzn2.0.2.x86_64 29/43
Verifying : 2:vim-data-8.2.4857-1.amzn2.0.1.noarch 30/43
Verifying : glibc-2.26-58.amzn2.x86_64 31/43
Verifying : curl-7.79.1-2.amzn2.0.1.x86_64 32/43
Verifying : libcurl-7.79.1-2.amzn2.0.1.x86_64 33/43
Verifying : glibc-locale-source-2.26-58.amzn2.x86_64 34/43
Verifying : glibc-minimal-langpack-2.26-58.amzn2.x86_64 35/43
Verifying : glibc-common-2.26-58.amzn2.x86_64 36/43
Verifying : 2:vim-filesystem-8.2.4857-1.amzn2.0.1.noarch 37/43
Verifying : 2:vim-minimal-8.2.4857-1.amzn2.0.1.x86_64 38/43
Verifying : 2:vim-common-8.2.4857-1.amzn2.0.1.x86_64 39/43
Verifying : glibc-all-langpacks-2.26-58.amzn2.x86_64 40/43
Verifying : amazon-ssm-agent-3.1.1188.0-1.amzn2.x86_64 41/43
Verifying : libcrypt-2.26-58.amzn2.x86_64 42/43
Verifying : initscripts-9.49.47-1.amzn2.0.1.x86_64 43/43

Installed:
kernel.x86_64 0:5.10.130-118.517.amzn2

Updated:
amazon-ssm-agent.x86_64 0:3.1.1575.0-1.amzn2      curl.x86_64 0:7.79.1-4.amzn2.0.1      expat.x86_64 0:2.1.0-14.amzn2.0.1
glibc.x86_64 0:2.26-59.amzn2                    glibc-all-langpacks.x86_64 0:2.26-59.amzn2  glibc-common.x86_64 0:2.26-59.amzn2
glibc-locale-source.x86_64 0:2.26-59.amzn2      glibc-minimal-langpack.x86_64 0:2.26-59.amzn2  initscripts.x86_64 0:9.49.47-1.amzn2.0.2
iproute.x86_64 0:5.10.0-2.amzn2.0.3             libcrypt.x86_64 0:2.26-59.amzn2      libcurl.x86_64 0:7.79.1-4.amzn2.0.1
libxml2.x86_64 0:2.9.1-6.amzn2.5.5             vim-data.noarch 2:8.2.5172-1.amzn2.0.1  systemtap-runtime.x86_64 0:4.5-1.amzn2.0.1
vim-common.x86_64 2:8.2.5172-1.amzn2.0.1        vim-minimal.x86_64 2:8.2.5172-1.amzn2.0.1  vim-enhanced.x86_64 2:8.2.5172-1.amzn2.0.1
vim-filesystem.noarch 2:8.2.5172-1.amzn2.0.1     vim-minimal.x86_64 2:8.2.5172-1.amzn2.0.1  yum.noarch 0:3.4.3-158.amzn2.0.6

Complete!
[ec2-user@ip-172-31-28-111 ~]$
```

```
ec2-user@ip-172-31-28-111:~$ sudo yum install httpd
```

```
ec2-user@ip-172-31-28-111:~$ sudo yum install httpd
Downloading packages:
(1/9): apr-1.7.0-9.amzn2.x86_64.rpm | 122 kB 00:00:00
(2/9): apr-util-1.6.1-5.amzn2.0.2.x86_64.rpm | 99 kB 00:00:00
(3/9): apr-util-bdb-1.6.1-5.amzn2.0.2.x86_64.rpm | 19 kB 00:00:00
(4/9): generic-logos-httpd-18.0.0-4.amzn2.noarch.rpm | 19 kB 00:00:00
(5/9): httpd-filesystem-2.4.54-1.amzn2.noarch.rpm | 24 kB 00:00:00
(6/9): httpd-2.4.54-1.amzn2.x86_64.rpm | 1.4 MB 00:00:00
(7/9): httpd-tools-2.4.54-1.amzn2.x86_64.rpm | 88 kB 00:00:00
(8/9): mailcap-2.1.41-2.amzn2.noarch.rpm | 31 kB 00:00:00
(9/9): mod_http2-1.15.19-1.amzn2.0.1.x86_64.rpm | 149 kB 00:00:00
-----
Total | 7.0 MB/s | 1.9 MB 00:00:00
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
  Installing : apr-1.7.0-9.amzn2.x86_64 | 1/9
  Installing : apr-util-bdb-1.6.1-5.amzn2.0.2.x86_64 | 2/9
  Installing : apr-util-1.6.1-5.amzn2.0.2.x86_64 | 3/9
  Installing : httpd-tools-2.4.54-1.amzn2.x86_64 | 4/9
  Installing : httpd-filesystem-2.4.54-1.amzn2.noarch | 5/9
  Installing : generic-logos-httpd-18.0.0-4.amzn2.noarch | 6/9
  Installing : mailcap-2.1.41-2.amzn2.noarch | 7/9
  Installing : mod_http2-1.15.19-1.amzn2.0.1.x86_64 | 8/9
  Installing : httpd-2.4.54-1.amzn2.x86_64 | 9/9
  Verifying : apr-util-1.6.1-5.amzn2.0.2.x86_64 | 1/9
  Verifying : apr-util-bdb-1.6.1-5.amzn2.0.2.x86_64 | 2/9
  Verifying : httpd-tools-2.4.54-1.amzn2.x86_64 | 3/9
  Verifying : mod_http2-1.15.19-1.amzn2.0.1.x86_64 | 4/9
  Verifying : httpd-2.4.54-1.amzn2.x86_64 | 5/9
  Verifying : mailcap-2.1.41-2.amzn2.noarch | 6/9
  Verifying : generic-logos-httpd-18.0.0-4.amzn2.noarch | 7/9
  Verifying : httpd-filesystem-2.4.54-1.amzn2.noarch | 8/9
  Verifying : apr-1.7.0-9.amzn2.x86_64 | 9/9

Installed:
  httpd.x86_64 0:2.4.54-1.amzn2

Dependency Installed:
  apr.x86_64 0:1.7.0-9.amzn2 apr-util.x86_64 0:1.6.1-5.amzn2.0.2 apr-util-bdb.x86_64 0:1.6.1-5.amzn2.0.2 generic-logos-httpd.noarch 0:18.0.0-4.amzn2
  httpd-filesystem.noarch 0:2.4.54-1.amzn2 httpd-tools.x86_64 0:2.4.54-1.amzn2 mailcap.noarch 0:2.1.41-2.amzn2 mod_http2.x86_64 0:1.15.19-1.amzn2.0.1

Complete!
ec2-user@ip-172-31-28-111:~$
```

```
ec2-user@ip-172-31-28-111:~  
[ec2-user@ip-172-31-28-111 ~]$ sudo systemctl start httpd.service
```

```
ec2-user@ip-172-31-28-111:~  
[ec2-user@ip-172-31-28-111 ~]$ sudo systemctl start httpd.service  
[ec2-user@ip-172-31-28-111 ~]$
```

```
ec2-user@ip-172-31-28-111:~  
[ec2-user@ip-172-31-28-111 ~]$ sudo systemctl start httpd.service  
[ec2-user@ip-172-31-28-111 ~]$ sudo systemctl enable httpd.service
```

```
ec2-user@ip-172-31-28-111:~  
[ec2-user@ip-172-31-28-111 ~]$ sudo systemctl start httpd.service  
[ec2-user@ip-172-31-28-111 ~]$ sudo systemctl enable httpd.service  
Created symlink from /etc/systemd/system/multi-user.target.wants/httpd.service to /usr/lib/systemd/system/httpd.service.  
[ec2-user@ip-172-31-28-111 ~]$
```


EC2 Management Console

us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#ModifyInboundSecurityGroupRules:securityGroupId=sg-054...

EC2 > Security Groups > sg-054ac5ab241a57e8a - launch-wizard-12 > Edit inbound rules

Edit inbound rules

Inbound rules control the incoming traffic that's allowed to reach the instance.

Inbound rules

Security group rule ID	Type	Protocol	Port range	Source	Description - optional	
sg-r0ed424d085c5ef7d3	SSH	TCP	22	Custom 0.0.0.0/0		Delete
-	HTTP	TCP	80	Anywh... 0.0.0.0/0		Delete
-	HTTPS	TCP	443	Anywh... 0.0.0.0/0		Delete

Add rule

Feedback Looking for language selection? Find it in the new Unified Settings

© 2022, Amazon Internet Services Private Ltd. or its affiliates. Privacy Terms Cookie preferences

EC2 Management Console

us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#SecurityGroup:group-id=sg-054ac5ab241a57e8a

New EC2 Experience

- EC2 Dashboard
- EC2 Global View
- Events
- Tags
- Limits
- Instances
 - Instances
 - Instance Types
 - Launch Templates
 - Spot Requests
 - Savings Plans
 - Reserved Instances
 - Dedicated Hosts
 - Scheduled Instances
 - Capacity Reservations
- Images
 - AMIs

Inbound security group rules successfully modified on security group (sg-054ac5ab241a57e8a | launch-wizard-12)

Details

EC2 > Security Groups > sg-054ac5ab241a57e8a - launch-wizard-12

sg-054ac5ab241a57e8a - launch-wizard-12

Actions

Details

Security group name	Security group ID	Description	VPC ID
launch-wizard-12	sg-054ac5ab241a57e8a	launch-wizard-12 created 2022-08-01T04:02:11.264Z	vpc-08b1182b4625b7957
Owner	Inbound rules count	Outbound rules count	
070714338482	3 Permission entries	3 Permission entries	

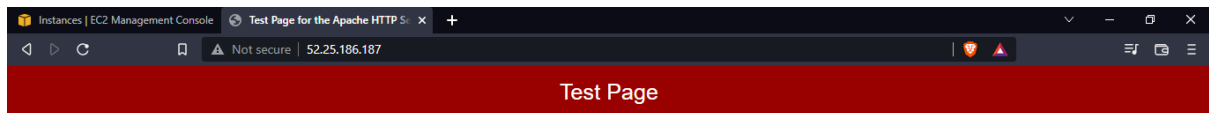
Inbound rules Outbound rules Tags

You can now check network connectivity with Reachability Analyzer

Run Reachability Analyzer

Feedback Looking for language selection? Find it in the new Unified Settings

© 2022, Amazon Internet Services Private Ltd. or its affiliates. Privacy Terms Cookie preferences



This page is used to test the proper operation of the Apache HTTP server after it has been installed. If you can read this page, it means that the Apache HTTP server installed at this site is working properly.

If you are a member of the general public:

The fact that you are seeing this page indicates that the website you just visited is either experiencing problems, or is undergoing routine maintenance.

If you would like to let the administrators of this website know that you've seen this page instead of the page you expected, you should send them e-mail. In general, mail sent to the name "webmaster" and directed to the website's domain should reach the appropriate person.

For example, if you experienced problems while visiting www.example.com, you should send e-mail to "webmaster@example.com".

If you are the website administrator:

You may now add content to the directory `/var/www/html/`. Note that until you do so, people visiting your website will see this page, and not your content. To prevent this page from ever being used, follow the instructions in the file `/etc/httpd/conf/welcome.conf`.

You are free to use the image below on web sites powered by the Apache HTTP Server.



```
ec2-user@ip-172-31-28-111:/var/www/html
[ec2-user@ip-172-31-28-111 ~]$ cd /var/www/html/
[ec2-user@ip-172-31-28-111 html]$ sudo touch index.html
[ec2-user@ip-172-31-28-111 html]$ ls
index.html
[ec2-user@ip-172-31-28-111 html]$ nano index.html
[ec2-user@ip-172-31-28-111 html]$
```

```
ec2-user@ip-172-31-28-111:/var/www/html
GNU nano 2.9.8 index.html

[ File 'index.html' is unwritable ]

Get Help Write Out Where Is Cut Text Justify Cur Pos Undo Mark Text To Bracket Previous
Exit Read File Replace Uncut Text To Spell Go To Line Redo Copy Text WhereIs Next Next
```

```
ec2-user@ip-172-31-28-111:/var/www/html
[ec2-user@ip-172-31-28-111 html]$ sudo chmod 777 index.html
[ec2-user@ip-172-31-28-111 html]$ ls -al
total 0
drwxr-xr-x 2 root root 24 Aug 1 04:27 .
drwxr-xr-x 4 root root 33 Aug 1 04:08 ..
-rwxrwxrwx 1 root root 0 Aug 1 04:27 index.html
[ec2-user@ip-172-31-28-111 html]$
```



WELCOME