AWS EC2 LAB

Self-Paced LAB

Introduction

Overview

- This guide introduces you to Amazon Elastic Compute Cloud (Amazon EC2) using the AWS Management Console.

Amazon API Gateway

Region Name	Region	Endpoint	Protocol
US East (Ohio)	us-east-2	apigateway.us-east-2.amazonaws.com	HTTPS
US East (N. Virginia)	us-east-1	apigateway.us-east-1.amazonaws.com	HTTPS
US West (N. California)	us-west-1	apigateway.us-west-1.amazonaws.com	HTTPS
US West (Oregon)	us-west-2	apigateway.us-west-2.amazonaws.com	HTTPS
Asia Pacific (Mumbai)	ap-south-1	apigateway.ap-south-1.amazonaws.com	HTTPS
Asia Pacific (Seoul)	ap-northeast-2	apigateway.ap-northeast-2.amazonaws.com	HTTPS
Asia Pacific (Singapore)	ap-southeast-1	apigateway.ap-southeast-1.amazonaws.com	HTTPS
Asia Pacific (Sydney)	ap-southeast-2	apigateway.ap-southeast-2.amazonaws.com	HTTPS
Asia Pacific (Tokyo)	ap-northeast-1	apigateway.ap-northeast-1.amazonaws.com	HTTPS
Canada (Central)	ca-central-1	apigateway.ca-central-1.amazonaws.com	HTTPS
EU (Frankfurt)	eu-central-1	apigateway.eu-central-1.amazonaws.com	HTTPS
EU (Ireland)	eu-west-1	apigateway.eu-west-1.amazonaws.com	HTTPS
EU (London)	eu-west-2	apigateway.eu-west-2.amazonaws.com	HTTPS
South America (São Paulo)	sa-east-1	apigateway.sa-east-1.amazonaws.com	HTTPS

Updated region code

- For more Information about regions, see
- http://docs.aws.amazon.com/general/latest/gr/rande.html

Topics covered

By the end of this lab, you will be able to:

1. Log into the Amazon Management Console.
2. Create an Amazon Linux Instance from an Amazon Machine Image (AMI).
3. Find your instance in the Amazon Management Console.
4. Log into your instance.

Pre-requisite

Download Putty or Xshell

- If you do not already have the PuTTY client installed on your machine, you can download and then launch it from here:
- http://the.earth.li/~sgtatham/putty/latest/x86/putty.exe

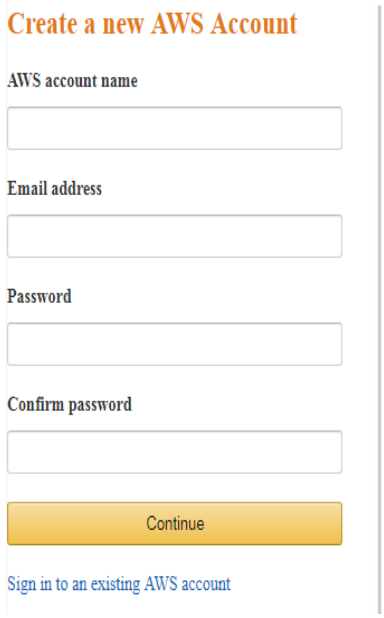
Xshell link – License Type – “Home and School Use”

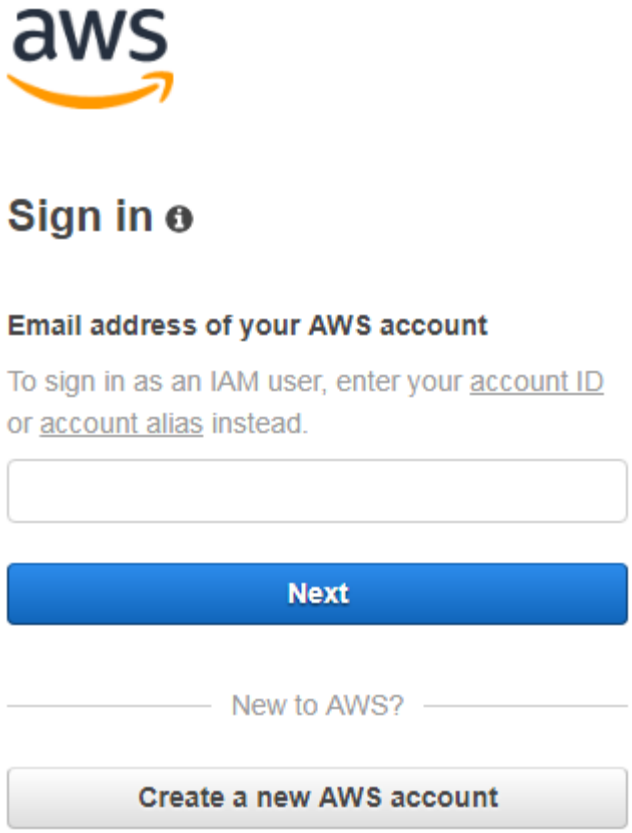
- https://www.netsarang.com/download/down_form.html?code=522&downloadType=0&licenseType=1,
- A link would be sent to your email ID to download the file.

1. Log into the Amazon Management Console.

Log into the Amazon Management Console.

- Click on **"Sign in to the Console"**
- Click on **"Create a new AWS Account"**





Log into the Amazon Management Console.

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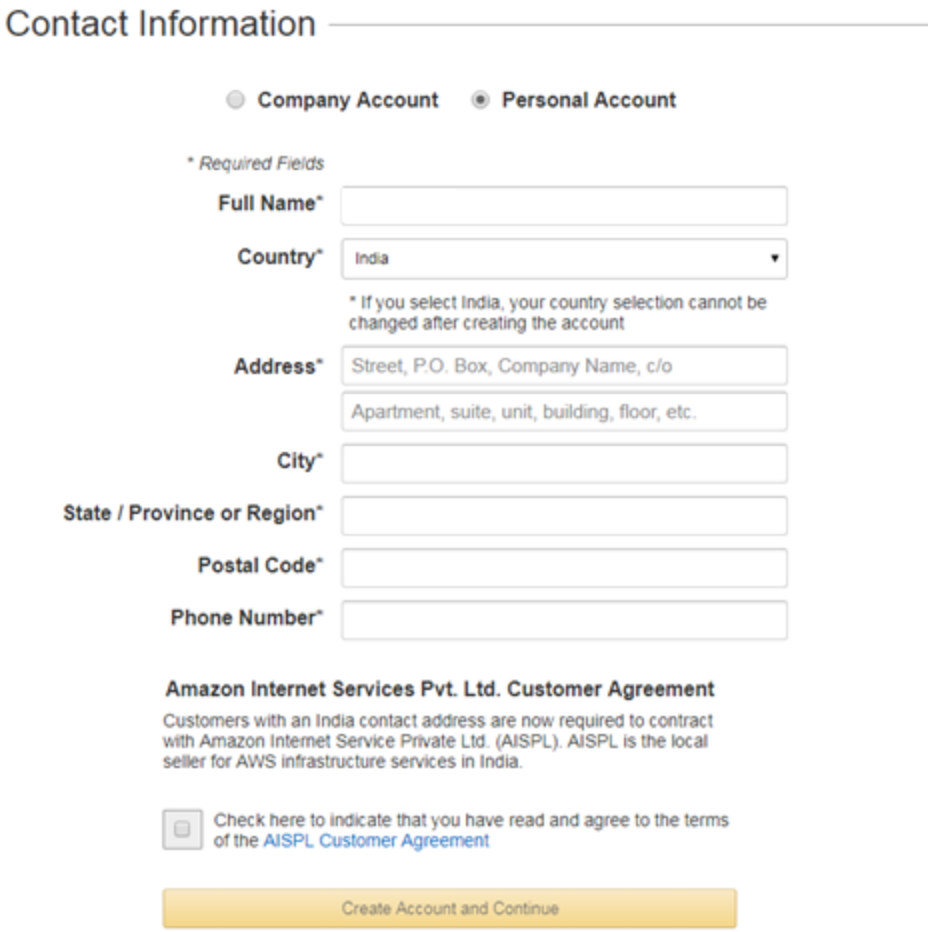
- Please provide the correct Phone number as there will be an verification call to activate the account.



Log into the Amazon Management Console.

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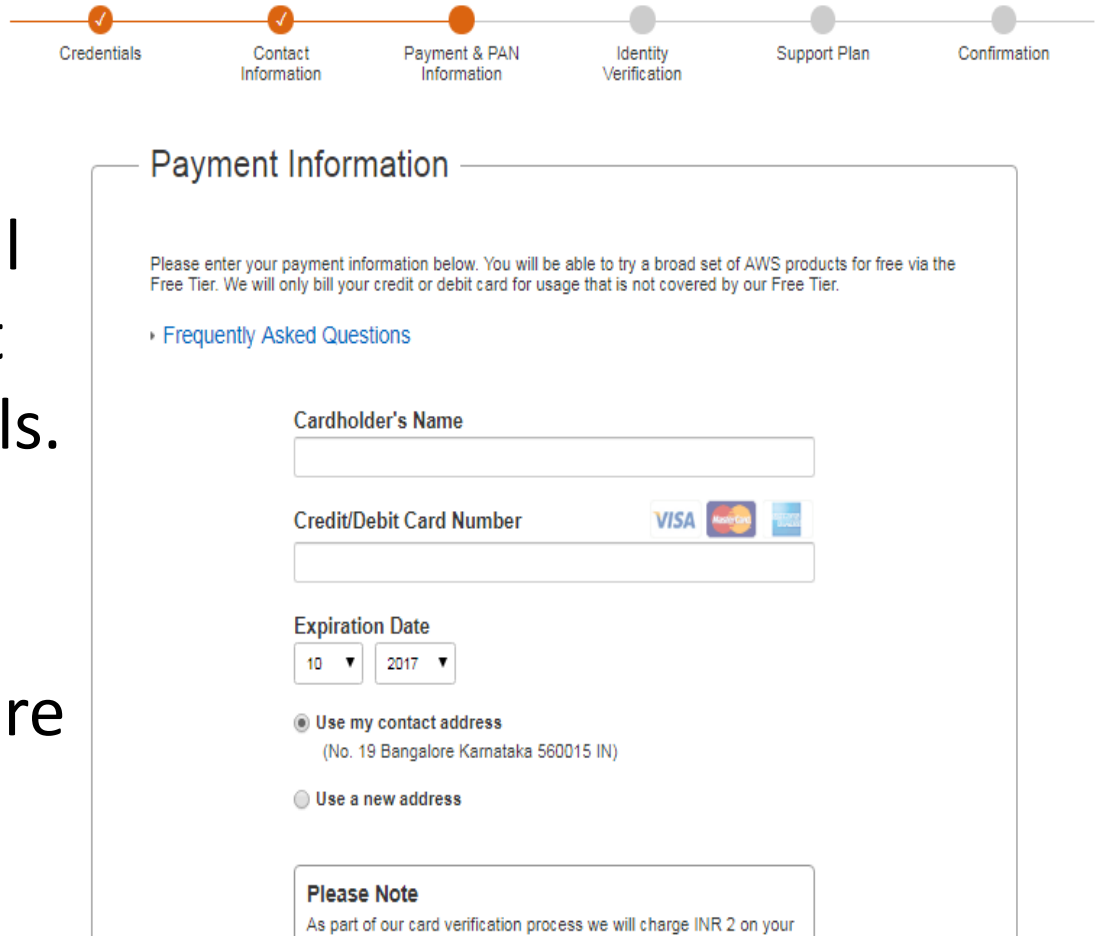
- This is an free account, but for verification you will need to give Credit or Debit card details. They would charge INR 2.
- Please change Expire date later.



Log into the Amazon Management Console.

Continued……

- You would get an call as verification from AWS.
- Enter the “Code” shown on the screen on the phone to verify the same.

- CONGRATS your AWS account is READY to use.

2. Create an Amazon Linux Instance from an Amazon Machine Image (AMI).

Create an Amazon Linux Instance

Continued…..

- In the **AWS Management Console**, on the **Services** menu, click **EC2.**
- Click **Launch Instance.**
- Find the **Amazon Linux AMI** instance (usually the first choice in the list).
- Click **Select** for this **AMI.**
- Select instance type **General purpose – t2.small.**

Create an Amazon Linux Instance

Continued…..

- Click **Next: Configure Instance Details.**
  - **Tip:** It is worth to note the various options here.

  This is the location where you would set access, network settings, monitoring and other options.
- Leave the default options selected and click **Next: Add Storage.**
- Leave the default options and click **Next: Add Tags.**

Create an Amazon Linux Instance

Continued…..

- Click **click to add a Name tag.**
- In the **Value** field of the **Name** attribute, type a name (such as “EC2 LAB”).
  - Tip: When Launching multiple instances, having your instances tagged makes it much easier to keep track of them
- Click **Next: Configure Security Group.**
- Leave the default security group, as it allows port 22 (SSH) from anywhere to this Linux instance.

Create an Amazon Linux Instance

Continued…..

- Click **Review and Launch.**
- Click **Launch.**
  - A Key pair, which has been automatically created for you, should auto-populate in the second drop-down box.
- Select the acknowledgement checkbox.
- Click **Launch Instances.**
  - **Tips:** Key pairs are how you access your instance after it is created.
  - **Tips:** IF YOU DO NOT HAVE A KEY PAIR, YOU WILL **NOT** BE ABLE TO ACCESS THE INSTANCE
  - **Private KEY *.PEM** would be downloadable once only as AMAZON does not store private KEY's.

Create an Amazon Linux Instance

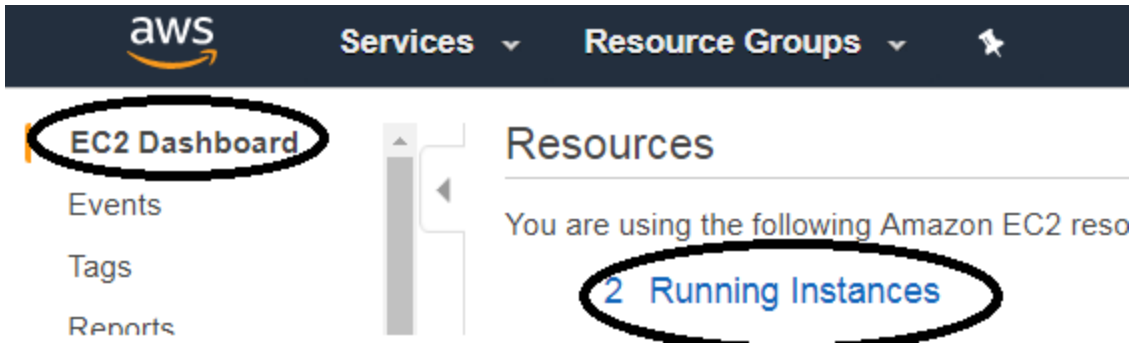
Continued…..

- TIP– Did you know that this can all be done via the command line!!!!

- **COMPELTE!**
- Once the instance state has changed to running and your **Status Checks** column says **“2/2 checks passed..”** your instance will be ready to use.

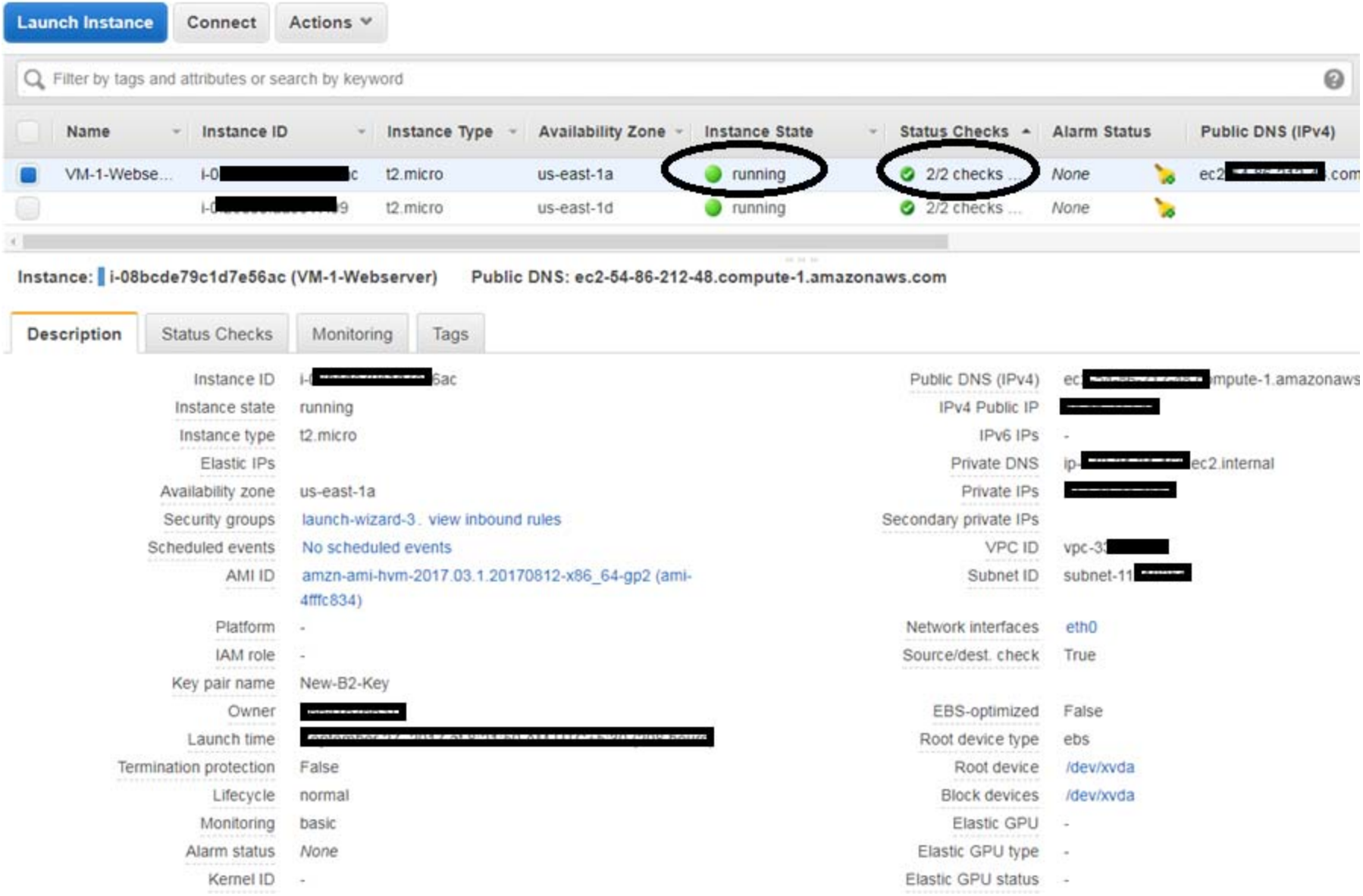
3. Find your instance in the Amazon Management Console.

Find your instance in the Amazon Management Console.



- Observe all the options and parameters under the **“Description”**, for particular Instances.

Find your instance in the Amazon Management Console.



4. Log into the instance.

Windows Users: Connecting to your Amazon EC2 Instance via SSH

- This section is for windows users only. If you are running OSX or linux, skip to Linux users.
- In this section, you will use the PuTTY Secure Shell (SSH) client and your server's public DNS address to connect to your server.
- All Amazon EC2 instances are assigned two IP addresses at launch: ***a private and a public IP*** that are directly mapped to each other through NAT.

Windows Users: Connecting to your Amazon EC2 Instance via SSH

- In your list of running Amazon EC2 instance, select the instance to display the instance details.
- Copy the public DNS value to your Clipboard.
- Eg: ec2-53-83-232-201.compute-1.amazonaws.com
- If login via PuTTY, you need to convert *.PEM file to *.PPK file.
- Save the PPK file to the directory of your choice.

Windows Users: Connecting to your Amazon EC2 Instance via SSH

- Open PuTTY.exe
- In the **Host Name** box, enter **ec2-user**@<public DNS>. Paste the public DNS value from your Clipboard.
- In the **Category** list , expand **SSH.**
- Click **Auth**(don't expand it).
- In the **Private key file for authentication** box, browse to the PPK file that you downloaded and double-click it.
- Click **Open.**
- Click **Yes** when prompted to allow a first connection to this remote SSH server.

OSX and Linux Users: Connecting to your Amazon EC2 Instance via SSH

- Save the *.PEM file on the LINUX OS.
- Connect to the Amazon EC2 instance using the OpenSSH CLI client
- Open the Terminal application
- Enter the following commands.
  - Chmod 600 <path-to-pem>
  - Ssh –I <path-to-pem> ec2-user@<public DNS>
- When you see a terminal screen and linux command line prompt, it means that you are connected to your Amazon EC2 instance!!!!!