

CH00 Environment Setup

Welcom to Join HashiCorp Terraform Workshop ^^

Outline

- **AWS Registration**
- **AWS Cloud9 Setup**
- **Tools Installation**
- **IAM Role Setup**

AWS Registration

What is the First Thing Before Starting to Explore Terraform?

A: Of course, A Cloud Provider Account!! And This Workshop Choose AWS Platform

Registration Flow

Visit [Here](#) Through Browser, Filling in...

- Email Address
- Password (Confirm Password)
- AWS Account Name
- Phone Number (Don't to add +886)
- Address
- Credit Card Information
- ...etc

Congratulations !!

- The AWS Account Has been Created.**
- There Are Several Region Within AWS**
- This Workshop will Use Region Oregon (Change from Upper Right corner, Beside Account)**

AWS Cloud9

- In order to Save Time, Let Everyone's Workshop Environment is The Same
- Visit [Here](#) Through Browser to Open Cloud9 Console

What is Cloud9?

- Cloud9 is a Cloud IDE for Writing, Running, and Debugging Code**
- In Fact, It will Boot A EC2 VM for Development**

Creating Environment (1/3)

- Click The Creating Environment Button
- Input Name, Description
- Click **Next Step** Button

Creating Environment (2/3)

- Environment Type: Create a New Instance Environment
- Instance Type: t2.micro
- Cost-Saving Setting: After 30 minutes (default)
- Click **Next Step** Button

Creating Environment (3/3)

- Review Environment Name and Settings
- Click **Create Environment** Button
- Then Just Waiting Few Minutes

- **Seeing the IDE Show Up !**
- Left Side is file Panel
- There are two Items in Right Side
- Above is File Panel
- Below is Terminal Panel

Tools Installation

- There are Several Tools Need to be installed
- HashiCorp Terraform
- kubectl
- heptio-authenticator-aws

HashiCorp Terraform

Follow Below Command to Install Terraform

```
name:~/environment $ curl -o terraform_0.11.8_linux_amd64
name:~/environment $ unzip terraform_0.11.8_linux_amd64.z
name:~/environment $ sudo mv terraform /usr/local/bin/
name:~/environment $ rm terraform_0.11.8_linux_amd64.zip
name:~/environment $ terraform version

Terraform v0.11.8
```

kubectl

Follow Below Command to Install kubectl

```
name:~/environment $ curl -o kubectl https://amazon-eks.s3.us-west-2.amazonaws.com/1.10.1/bin/linux/amd64/kubectl
```

```
name:~/environment $ chmod +x ./kubectl
```

```
name:~/environment $ sudo mv kubectl /usr/local/bin/
```

```
name:~/environment $ kubectl version
```

```
Client Version: version.Info{Major:"1", Minor:"10", GitVersion:"v1.10.1", GitCommit:"3112183", GitTreeState:"clean", BuildDate:"2018-07-17T06:51:33Z", GoVersion:"go1.10.3", Compiler:"gc", Platform:"linux/amd64"}
The connection to the server localhost:8080 was refused -
```

heptio-authenticator-aws

Follow Below Command to Install heptio-authenticator-aws

```
name:~/environment $ curl -o aws-iam-authenticator https://github.com/kubernetes-sigs/aws-iam-authenticator/releases/download/v0.0.0/aws-iam-authenticator_0.0.0_linux_amd64
name:~/environment $ chmod +x ./aws-iam-authenticator
name:~/environment $ sudo mv aws-iam-authenticator /usr/local/bin/
name:~/environment $ heptio-authenticator-aws help

A tool to authenticate to Kubernetes using AWS IAM credentials

Usage:
  heptio-authenticator-aws [command]

...
```

IAM Role Setup

- Cloud9 Default Permission is Not Allow to Create Other AWS Resource**
- Hence, Need to Create a Role then attach to the EC2 Instance Which Links to Cloud9 Environment**

Create Policy (1/2)

- Visit [Here](#) and Click "Create policy" Button and Choose "JSON", Paste Below Content

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "VisualEditor0",
      "Effect": "Allow",
      "Action": [
        "iam:*",
        "s3:*",
        "ec2:*",
        "autoscaling:*",
        "eks:*"
      ],
      "Resource": "*"
    }
  ]
}
```

Create Policy (2/2)

- Click "Preview Policy" Button, Name the Policy and Click "Create policy" Button Finally

Create Role (1/2)

- Visit [Here](#) and Click "Create Role" Button
- type of trusted entity: "AWS Service"
- the service that will use this role: "EC2"
- Click "Next: Permission" Button
- Choose the Policy Created Just Now, then Click "Next: Preview" Button

Create Role (2/2)

- Name the Role, Click "Create role" Button
- Visit The EC2 Panel, Attach the Role Created Just Now to The Cloud9 EC2 Instance (Name: aws-cloud9-*)

Congratulations !!

**You Have Completed the Workshop Environment
Setup**

Looking Forward to Seeing You at 9/15