AWS project 1

Creating the game application

Overview of the project

In this project you will learn how to create the tic tac game application.

Iam

AWS Identity and Access Management (IAM) is a web service that helps you securely control access to AWS resources. With IAM, you can manage permissions that control which AWS resources users can access. You use IAM to control who is authenticated (signed in) and authorized (has permissions) to use resources. IAM provides the infrastructure necessary to control authentication and authorization for your AWS accounts.

EC2 instance

Amazon Elastic Compute Cloud (Amazon EC2) provides on-demand, scalable computing capacity in the Amazon Web Services (AWS) Cloud. Using Amazon EC2 reduces hardware costs so you can develop and deploy applications faster.

DynamoDB

Amazon DynamoDB is a serverless, NoSQL, fully managed database with single-digit millisecond performance at any scale.

Step by Step lab

Create an Iam role

1. Click the create role
2. Select the AWS service
3. Service select - Ec2
4. Click - next
5. Add permission
6. Search for dynamoDB
7. Select the dynamodb full access (permission)
8. Click next
9. Role name - gamerole

Launching linux instance and connecting to it

1. Login to aws cloud account via the aws management console
2. Select region (you can choose any region of your choice)
3. Search for EC2 and in EC2 management console, launch instance
   - 3.1. Name and tag – linux-webserver
   - 3.2. Application and OS Images – Amazon Linux 2
   - 3.3. Instance type - t2.micro
   - 3.4. Key pair – select the existing keypair
   - 3.5. Edit Network settings
     a. Subnet – subnet in us-east-1a (even no preference is fine)
     b. Firewall – select existing security group (it must contain the port no 5000)
     c. Click advance details
        i. In Iam instance profile - select your role
        ii. Meta data accessible - Enabled
        iii. Meta data version - select v1 and v2
4. Number of instances - 1

   (Leave all other settings as default and launch instance)
5. Once the instance is launched
   - 5.1 Wait for instance state – running

After connecting the linux server copy paste the below commands

sudo yum groupinstall -y "Development Tools"

sudo yum install -y openssl-devel bzip2-devel libffi-devel

cd /usr/src

sudo wget
https://www.python.org/ftp/python/2.7.18/Python-2.7.18.tgz

sudo tar xzf Python-2.7.18.tgz

cd Python-2.7.18

sudo ./configure --enable-optimizations

sudo make altinstall

python2.7 -V

wget https://bootstrap.pypa.io/pip/2.7/get-pip.py

python get-pip.py

pip install Flask

pip install boto

pip install configparser

yum install git -y

cd /home/ec2-user/

git clone https://github.com/avizway1/tictactoe-with-DynamoDB.git

python application.py --config config.ini --mode service --endpoint dynamodb.ap-south-1.amazonaws.com --serverPort 5000.