Image and Facial Analysis Using AWS Management Console

### Step 1: Create an EC2 instance and an IAM role

1. Go to [https://aws.amazon.com/console/](https://www.google.com/url?q=https://aws.amazon.com/console/&sa=D&source=editors&ust=1673950141268729&usg=AOvVaw28RdruvEv3nVO9bYC2VYwS)
2. After logging in, navigate to the Console and select **“EC2”** from the services dropdown.
3. Click on **“Launch Instance”.**
4. Select **Amazon Linux 2 AMI.**
5. Select **t2.micro** type of instance and click on “Next: Configure Instance Details”.
6. Create an IAM role that gives **permissions**to the EC2 to access the AWS Rekognition service on your behalf. Click on **“Create a new IAM role”**
7. A new tab would be opened. Navigate to the new tab and click on on **“Create Role”**
8. Under “Choose a use case”, click on EC2 which would be under “Common use cases”
9. Now, we should attach the relevant permissions to our role. Search for **AmazonRekognitionFullAccess** and tick the box so that it will be attached to our role.
10. Click next and here you can optionally add tags.
11. Click next and assign a name to the role. I am going to assign the name as “aws-rekog-1”. Give a description and click “Create Role”.
12. Navigate to the previous tab, and click on the refresh button near “Create new IAM role”
13. Select the role that you just created. In my case it is aws-rekog-1. Now the IAM role field should look like this.
14. Click on “Next: Add Storage” and after that “Next: Add Tags” and then “Next: Configure Security Groups”. We will leave Storage and Tags as **defaults**.
15. In the security groups, Click on add a new rule and let the type of the new rule be “Custom TCP Rule”. Fill in the rule and finally, the rules should look as follows.
16. The new rule is going to allow us to access the EC2 instance from anywhere. We would be using the port number 3000 to host our application, but you can use any port number greater than 1024.
17. Click **“Review and Launch”**. Review your configuration and click on **Launch**.
18. A pop-up window will appear. Fill the form as below:
19. You can give any name to your key pair. Download the key pair and keep it safe. After that click on**Launch Instances**.

NOTE: You can also proceed without creating a key pair for this demo.

### Step 2: Connect to the EC2 Instance

1. After the EC2 instance is created, connect to the EC2 instance by clicking on the **“Connect”** button. This will open an SSH connection to the EC2 instance.

### Step 3: Install Node.js and Setup the Application

1. **Install Node.js** by executing the following commands in the terminal

* curl -fsSL https://rpm.nodesource.com/setup\_14.x | sudo bash
* sudo yum install -y nodejs

1. Execute the following commands:

* mkdir app
* cd app
* mkdir public && mkdir server
* cd public
* wget <https://awsmc-dd.s3.ap-south-1.amazonaws.com/index.html>
* wget <https://awsmc-dd.s3.ap-south-1.amazonaws.com/index.js>
* cd ..
* cd server
* wget <https://awsmc-dd.s3.ap-south-1.amazonaws.com/package.json>
* wget <https://awsmc-dd.s3.ap-south-1.amazonaws.com/server.js>
* npm install

1. In point 4, steps **a-c** create the **directories**. Steps **d-f** involve **navigating to the folder** “public” and **downloading** index.html and index.js. Steps**g-h** involve navigating to the folder server and downloading **package.json and server.js.** Package.json contains the dependencies required by server.js. On doing **npm install**, those dependencies will be installed
2. Execute the following command in the terminal

* node server.js

### Step 4: Finish

1. You can find out the Public IP address of your EC2 Instance on the bottom left of the terminal window. OR you can find the Public IP address of the EC2 instance in the EC2 Management Console. On selecting the newly created instance, the public IP address will be shown in the properties of the selected EC2 instance.
2. Navigate to the browser and type the following:-

* http://<IP\_ADDDRESS>:3000

NOTE: The <IP\_ADDDRESS> will be the IP address that you found in the previous step. Example: http://13.107.178.22:3000

1. You would be able to see the webpage now. Congratulations! You have a working Image recognizer and the power of deep learning at your disposal.