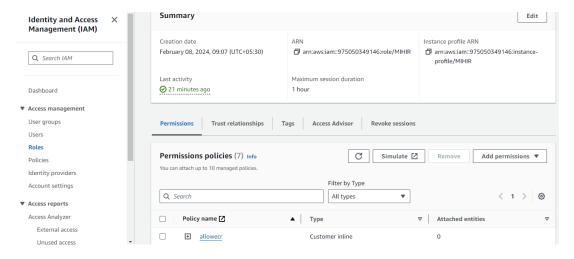
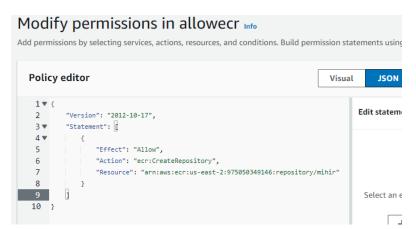
Create an ECR repository. Connect it using AWS CLI and push sample docker images to it: -

1: - Created A IAM Role For ECR: -



- Created a IAM ROLE for the ECR
- Created custom inline policy for Role

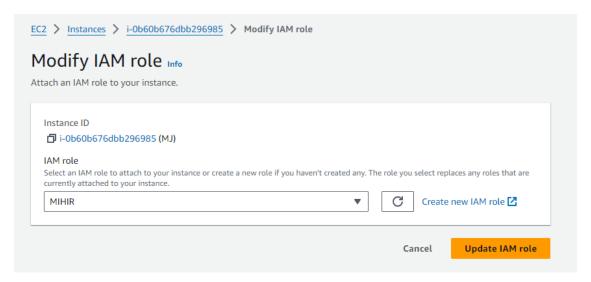


2:- Created a EC2 Instance and attach the IAM Role:-



Modify the IAM role and attach the role to EC2 instance.

3:- Modify a IAM Role to EC2 Instance: -



4:- SSH Into the EC2 instance :-

C:\Users\mihir.jain\Downloads>ssh -i "Key-pair.pem" ubuntu@ec2-18-216-77-212.us-east-2.compute.amazonaws.com

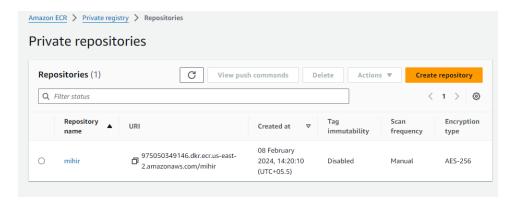
5:- Install the aws cli into the linux of Ec2 Instance :-

```
ubuntu@ip-172-31-38-31:~$ curl "https://awscli.amazonaws.com/awscli-exe-linux-x86_64.zip" -o "awscliv2.zip"
% Total % Received % Xferd Average Speed Time Time Time Current
Dload Upload Total Spent Left Speed
100 57.2M 100 57.2M 0 0 109M 0 --:-:-- --:-- 109M
ubuntu@ip-172-31-38-31:~$ sudo apt install unzip
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Suggested packages:
zip
The following NEW packages will be installed:
unzip
```

```
ubuntu@ip-172-31-38-31:~$ unzip awscliv2.zip
Archive: awscliv2.zip
```

6: - Created a repo with the aws cli:-

```
ubuntu@ip-172-31-38-31:~$ aws ecr create-repository --repository-name mihir
{
    "repository": {
        "repositoryArn": "arn:aws:ecr:us-east-2:975050349146:repository/mihir",
        "registryId": "975050349146",
        "repositoryName": "mihir",
        "repositoryUri": "975050349146.dkr.ecr.us-east-2.amazonaws.com/mihir",
        "createdAt": "2024-02-08T08:50:10.589000+00:00",
        "imageTagMutability": "MUTABLE",
        "imageScanningConfiguration": {
              "scanOnPush": false
        },
        "encryptionConfiguration": {
              "encryptionType": "AES256"
        }
    }
}
```



7: - I install the docker in the Linux machine: -

Command: - Sudo apt install docker.io

```
ubuntu@ip-172-31-38-31:~$ sudo apt install docker.io
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
    bridge-utils containerd dns-root-data dnsmasq-base pigz runc ubuntu-fan
Suggested packages:
    ifupdown aufs-tools cgroupfs-mount | cgroup-lite debootstrap docker-doc rinse zfs-fu
The following NEW packages will be installed:
    bridge-utils containerd dns-root-data dnsmasq-base docker.io pigz runc ubuntu-fan
0 upgraded, 8 newly installed, 0 to remove and 59 not upgraded.
Need to get 69.8 MB of archives.
```

Setup The docker: -

To enable the docker:-

Command:- sudo systemctl enable docker

• To check the status of the docker: -

Command:- sudo systemctl status docker

To start the docker:-

Command: - sudo systemctl start docker

I create a folder for docker and files:-

```
ubuntu@ip-172-31-38-31:~$ mkdir myapp
ubuntu@ip-172-31-38-31:~$ cb myapp
cb: command not found
ubuntu@ip-172-31-38-31:~$ cd myapp
ubuntu@ip-172-31-38-31:~/myapp$ echo "hello,world!" > index.html
ubuntu@ip-172-31-38-31:~/myapp$ ls
index.html
ubuntu@ip-172-31-38-31:~/myapp$ cat index.html
hello,world!
ubuntu@ip-172-31-38-31:~/myapp$ touch DockerFile
ubuntu@ip-172-31-38-31:~/myapp$ ls -l
total 4
-rw-rw-r-- 1 ubuntu ubuntu 0 Feb 8 12:04 DockerFile
-rw-rw-r-- 1 ubuntu ubuntu 13 Feb 8 12:03 index.html
ubuntu@ip-172-31-38-31:~/myapp$ vi DockerFile
ubuntu@ip-172-31-38-31:~/myapp$ 3L, 50B written
ubuntu@ip-172-31-38-31:~/myapp$ cat DockerFile
FROM nginx
COPY index.html /usr/share/nginx/html
```

For checking the docker info

```
ubuntu@ip-172-31-38-31:~/myapp$ sudo docker info
```

We build docker file

```
pp$ sudo docker build -f DockerFile -t myapp
DEPRECATED: The legacy builder is deprecated and will be removed in a future release.
            Install the buildx component to build images with BuildKit:
            https://docs.docker.com/go/buildx/
Sending build context to Docker daemon 3.072kB
Step 1/2 : FROM nginx
latest: Pulling from library/nginx
c57ee5000d61: Pull complete
9b0163235c08: Pull complete
f24a6f652778: Pull complete
9f3589a5fc50: Pull complete
f0bd99a47d4a: Pull complete
398157bc5c51: Pull complete
1ef1c1a36ec2: Pull complete
Digest: sha256:84c52dfd55c467e12ef85cad6a252c0990564f03c4850799bf41dd738738691f
Status: Downloaded newer image for nginx:latest
 ---> b690f5f0a2d5
Step 2/2 : COPY index.html /usr/share/nginx/html
 ---> 36fa428f7482
Successfully built 36fa428f7482
```

To find the images of the docker

```
ubuntu@ip-172-31-38-31:<mark>~/myapp$ sudo docker images</mark>
                        IMAGE ID
REPOSITORY
              TAG
                                       CREATED
                                                        SIZE
                        36fa428f7482
myapp
              latest
                                        2 minutes ago
                                                        187MB
nginx
              latest
                        b690f5f0a2d5
                                      3 months ago
hello-world latest
                        d2c94e258dcb 9 months ago
                                                        13.3kB
ubuntu@ip-172-31-38-31:~/myapp$ sudo docker run -d -p 8080:80 myapp
bec4ab09b161bfde1ffbd290aebde61545a23a31da7282715fae373e0927d30a
```

We build that image and push the docker image into the ECR.

```
pp$ sudo docker build -f DockerFile -t mihir
DEPRECATED: The legacy builder is deprecated and will be removed in a future release.
               Install the buildx component to build images with BuildKit: https://docs.docker.com/go/buildx/
Sending build context to Docker daemon 3.072kB
Step 1/2 : FROM nginx ---> b690f5f0a2d5
Step 2/2 : COPY index.html /usr/share/nginx/html
---> Using cache
  ---> 36fa428f7482
Successfully built 36fa428f7482
Successfully tagged mihir:latest
ubuntu@ip-172-31-38-31:~/myapp$ docker tag mihir:latest 975050349146.dkr.ecr.us-east-2.amazonaws.com/mihir:latest ubuntu@ip-172-31-38-31:~/myapp$ docker push 975050349146.dkr.ecr.us-east-2.amazonaws.com/mihir:latest The push refers to repository [975050349146.dkr.ecr.us-east-2.amazonaws.com/mihir]
e47f59e22a22: Pushed
f205d290cd76: Pushed
2b28485849ea: Pushed
9f21a390e3f6: Pushed
06536efc503a: Pushed
84e0c9ef07d7: Pushed
83bdf27d9eaa: Pushed
fb1bd2fc5282: Pushed
latest: digest: sha256:0722d6c21d0caeff6578741a9e44c727ffcacdf13bf08fdcfec34ad84573068e size: 1985
      tu@ip-172-31-38-31:~/myapp$
```

• We pushed the docker image in the ECR:-

