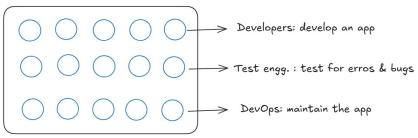
Roles

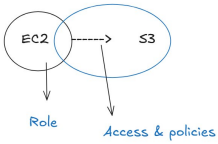
-> It is a temporary set of permissions that can be used by a service/user, to access another service.
-> It defines a particular service which is going to access a specific service.



R&D on Trusted entity type in Roles

Steps to create an Roles:

1. Go to IAM and click on 'Roles' & then click on 'Create Roles'.
2. In 'Trusted entity type', select 'AWS Service'.
3. In 'Use case' (selecting the service for which we are creating the role), select 'EC2'.



4. Click on Next and then do not give any permission right now & click on Next again.

EC2 -----> Bucket
Objects
Delete an Object
Put an Object in the bucket

5. Give a name to the role and click on 'Create Role'.

Steps to create Permission Policies for the role:

1. Find the role which you created and click on.
2. In 'Permissions' section, click on 'Add Permissions' & select 'Create Inline Policy'.
3. In 'Select the service', select 'S3'.
4. In 'Action Allowed', select the permissions(these are the permissions that EC2 can perform on S3 service):

- List : ListAllMyBuckets (List the buckets)
  List Bucket (List the content inside a bucket)

- Read : GetObject

- Write : CreateBucket
  DeleteBucket
  PutObject
  DeleteObject

5. In 'Resources', select 'All' & click on Next.
6. Give a policy name & click on 'Create Policy'.

-> Now we create the instance, through which we will access S3 buckets.

Attaching IAM Role to the instance:

1. Select the instance.
2. Actions --> Security
3. Modify IAM Role -> Select the role you created -> Update IAM role.

-> For communicating w S3 -> AWS CLI

- sudo apt update
- sudo snap install aws-cli --classic

Commands:

1. aws s3 ls -> to list all the buckets
2. aws s3 ls s3://bucket-name -> to list all the objects within a bucket.
3. aws s3 cp s3://bucket-name/file-name destination-path -> to download the object from the bucket to the instance.

   s3://bucket-name/file-name: source path of file in the bucket
   destination-path: destination path where you want to paste the file (eg: pwd - /home/ubuntu [path]

4. aws s3 cp filename s3://bucket-name -> to upload any object from the instance to the bucket.
5. aws s3 rm s3://bucket-name/ filename-> to delete the object from the bucket using EC2
6. To create/make a new bucket using EC2-> aws s3 mb s3://bucket-name
7. To delete/remove the bucket using EC2 itself -> aws s3 rb s3://bucket-name