Date

Create integration object

1. Goals

In this assignment, we will create integration object. Integration object helps to make secure connection from snowflake to aws s3.

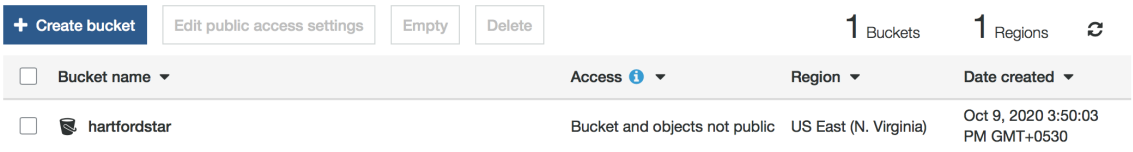
Prerequisites,

AWS Free tier account.

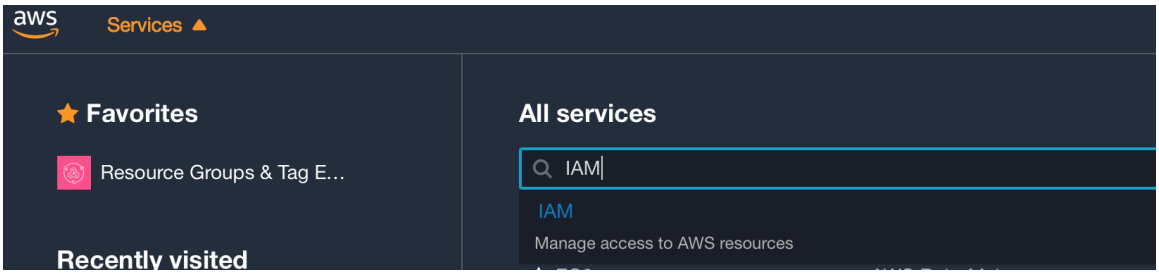
Clink on below clink and create aws free tier account.

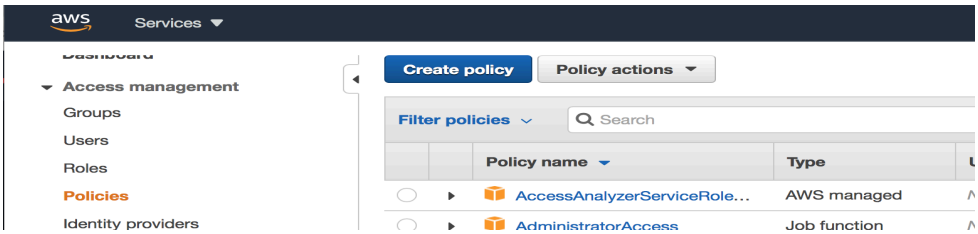
2. Create aws s3 BUCKET

Search for s3 in search panel and create bucket as below,



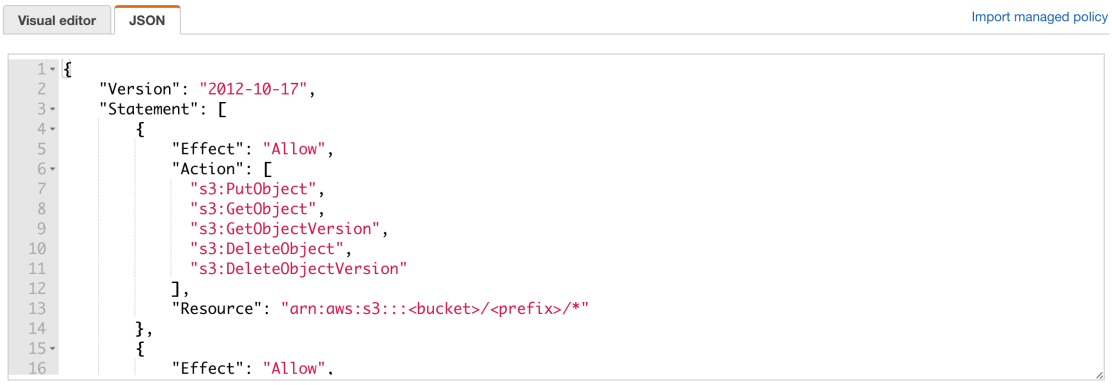
3. Create policy





Add policy in the json tab.

Please find the attached policy below,

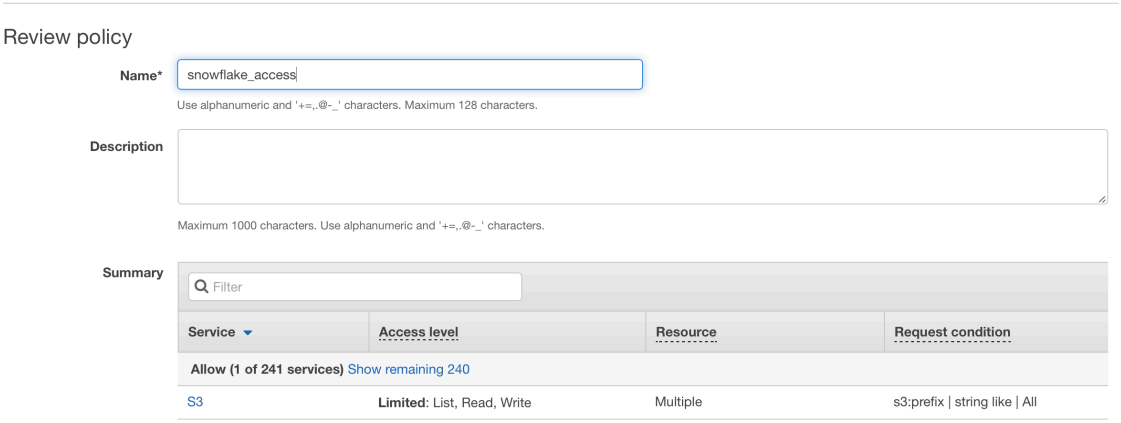



```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "s3:PutObject",
        "s3:GetObject",
        "s3:GetObjectVersion",
        "s3:DeleteObject",
        "s3:DeleteObjectVersion"
      ],
      "Resource": "arn:aws:s3:::<bucket>/<prefix>/*"
    },
    {
      "Effect": "Allow",
      "Action": "s3:ListBucket",
      "Resource": "arn:aws:s3:::<bucket>",
      "Condition": {
        "StringLike": {
```

```
            "s3:prefix": [
                "<prefix>/*"
            ]
        }
    }
  }
]
}
```

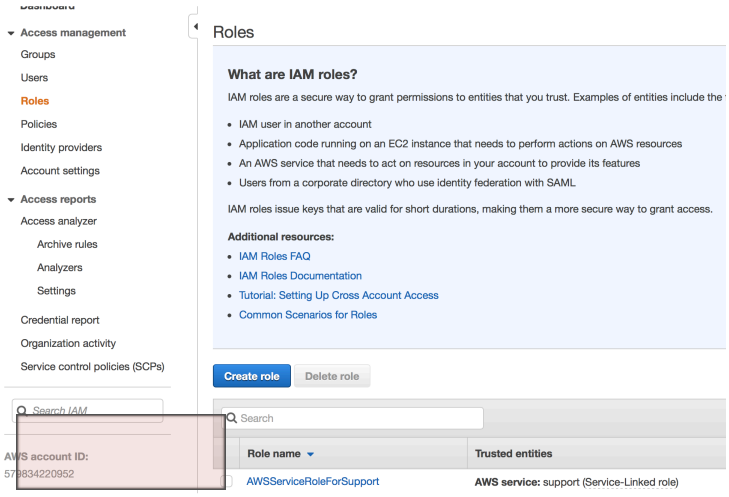
Name the policy and create it,

I am naming policy as, **snowflake_access**

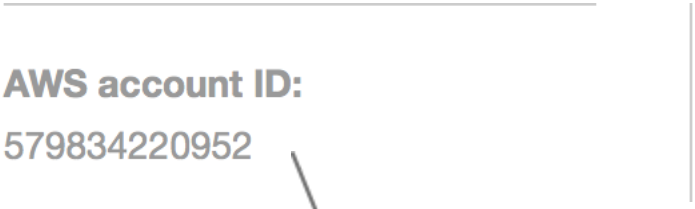


4. CREATE ROLE

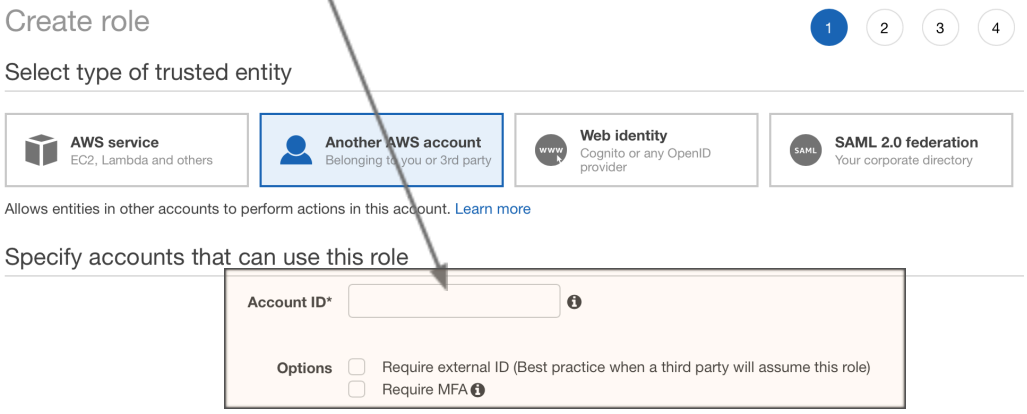
Search for IAM and click on Roles.



Note down your AWS account id,

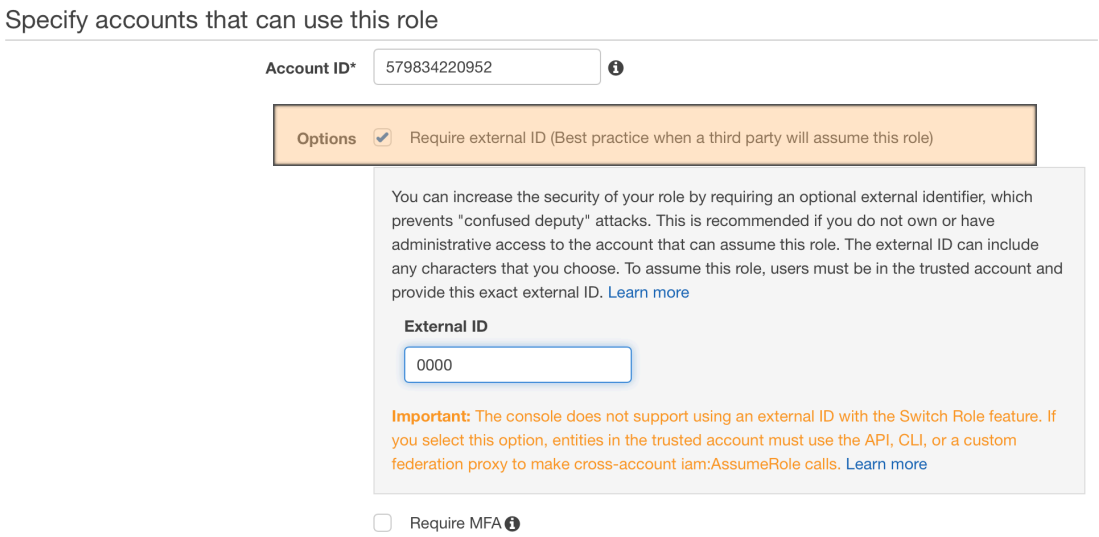


Choose another AWS account,



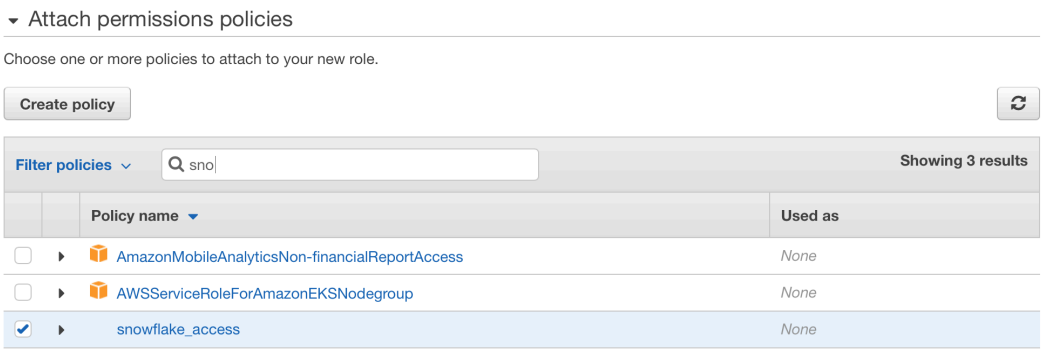
Fill Account ID in the, Account ID test box.

Choose external id check box to add snowflake external id.

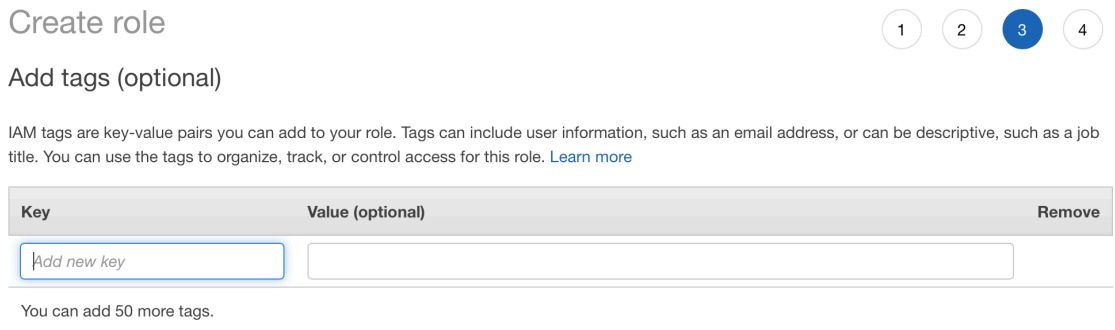


For time being we will fill external Id as 0000.

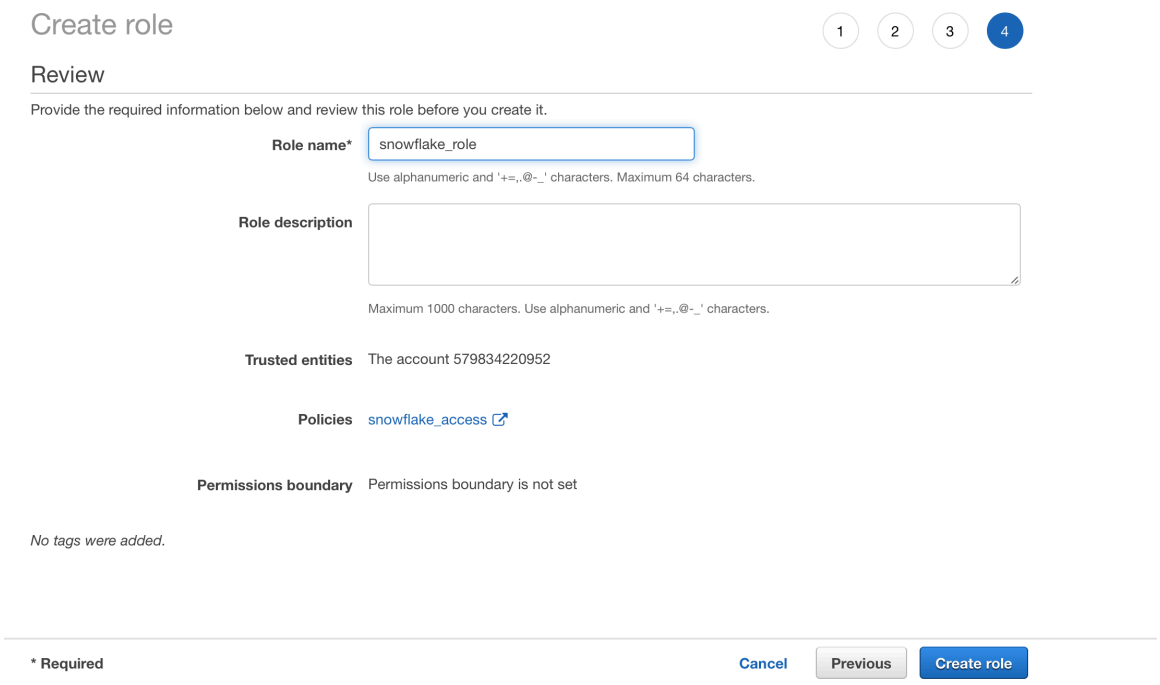
Click on next and choose the policy we created in the previous step,



Leave next page blank,



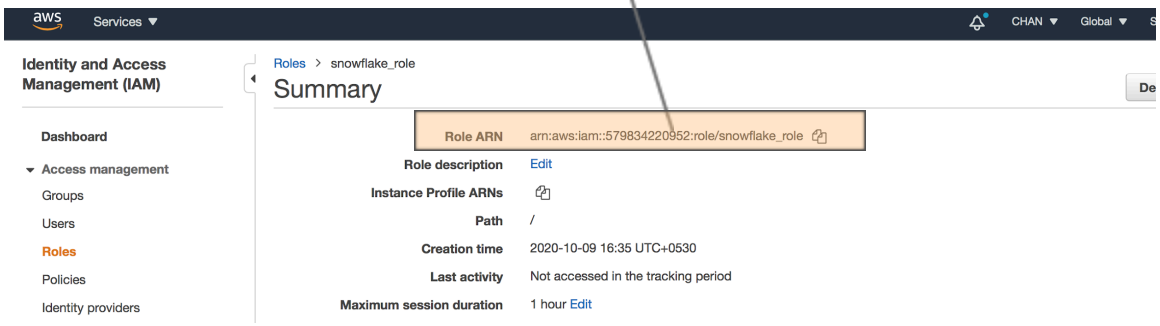
Click on next, to create role. Name the role as , snowflake_role.



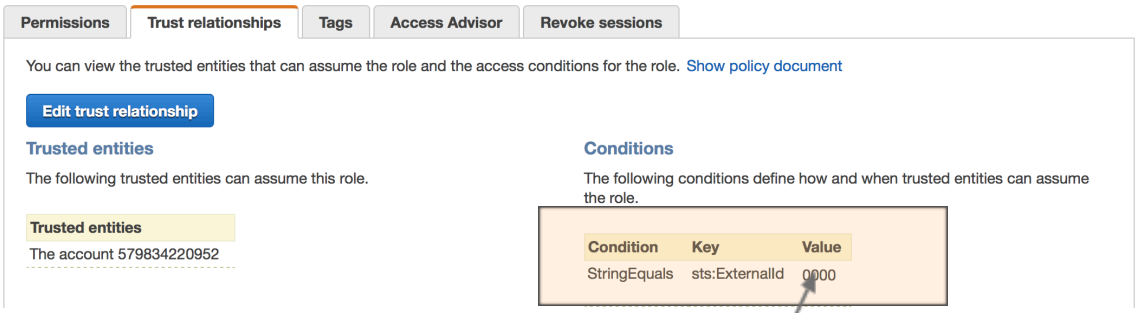
5. Create Integration object

Login to snowflake. Execute below command to create integration object.

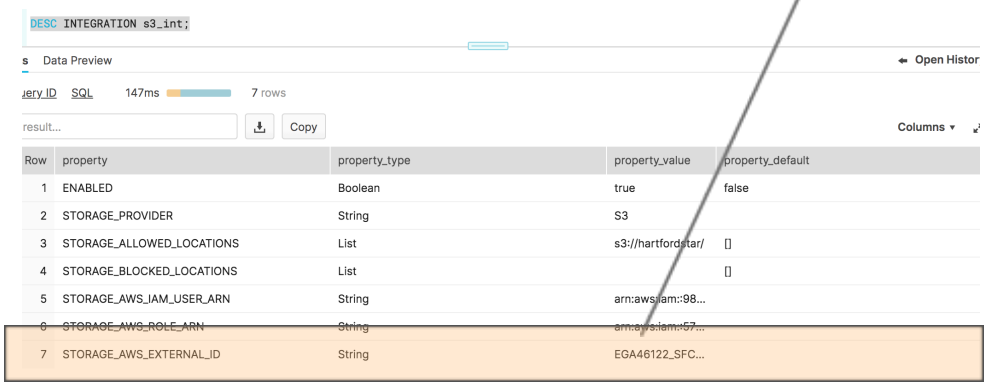
```
create or replace storage integration s3_int
 type = external_stage
 storage_provider = s3
 enabled = true
 storage_aws_role_arn = 'arn:aws:iam::579834220952:role/snowflake_role'
 storage_allowed_locations = ('s3://hartfordstar/');
```



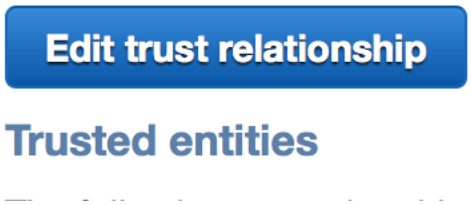
Add snowflake external id to aws s3. In below image external id is not updated,



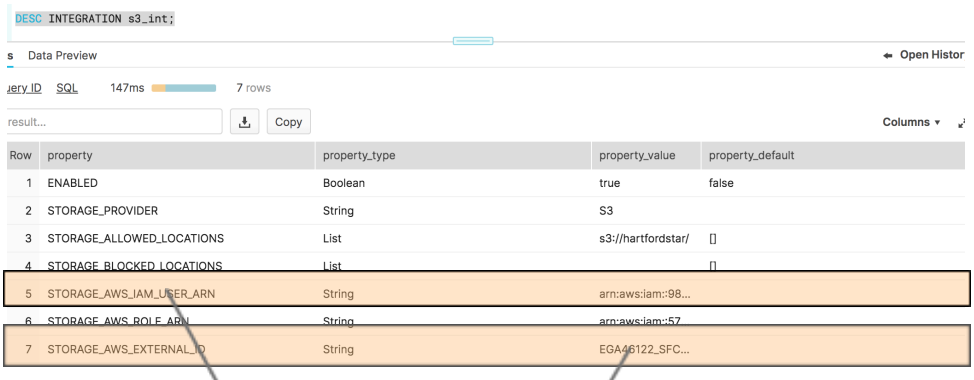
Describe integration object, *DESC INTEGRATION s3_int;*



Click on,



Update trust relationship as below,



Policy Document

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Principal": {
        "AWS": "arn:aws:iam::579834220952:root"
      },
      "Action": "sts:AssumeRole",
      "Condition": {
        "StringEquals": {
          "sts:ExternalId": "0000"
        }
      }
    }
  ]
}
```