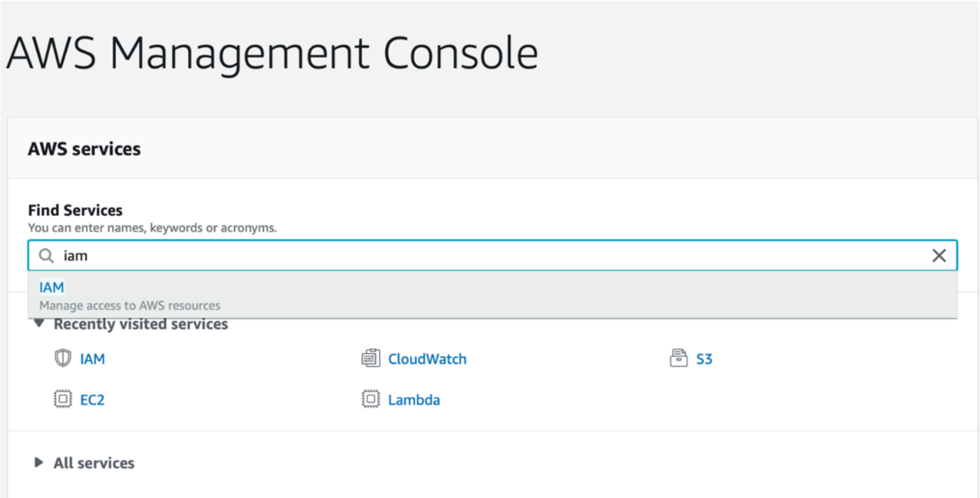
# EXPERIMENT-5: Introduction to IAM in AWS

## Steps:

1. To Create User First, log in to your AWS Console and select IAM from the list of services.
2. Select Users.
3. Select Add User.
4. Enter a User name and check Programmatic access, then select Next: Permissions. This account will be used by our AWS CLI and Serverless Framework. They'll be connecting to the AWS API directly and will not be using the Management Console.
5. Select Attach existing policies directly.
6. Search for Administrator Access and select the policy, then select Next: Tags. We can provide a more fine-grained policy here and we cover this later in the Customize the Serverless IAM Policy chapter. But for now, let's continue with this. We can optionally add some info to our IAM user. But we'll skip this for now. Click Next: Review.
7. Select Create user.
8. Select Show to reveal Secret access key.
9. Take a note of the Access key ID and Secret access key. We will be needing this later.

## Screenshots:



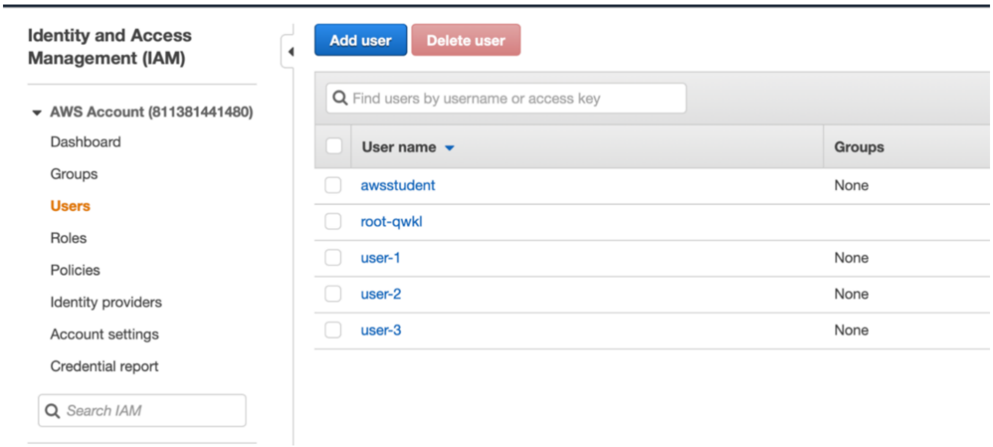
AWS Management Console

AWS services

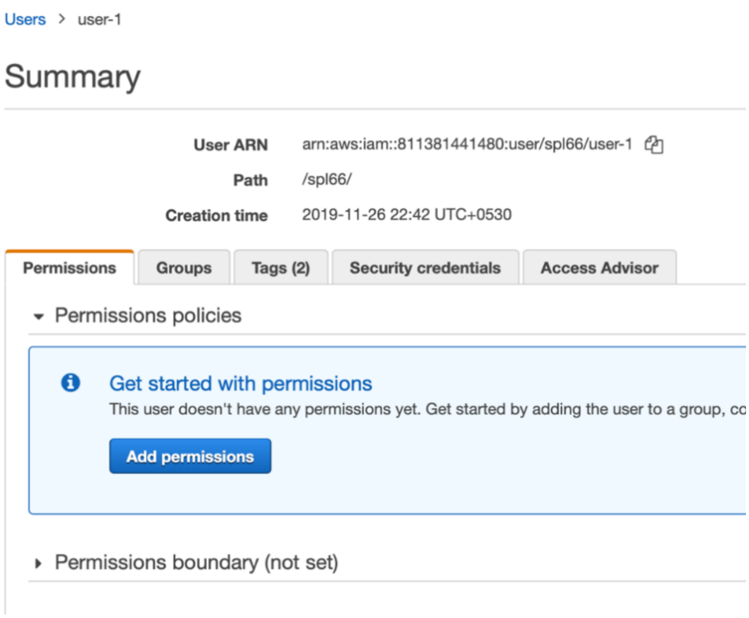
Find Services
You can enter names, keywords or acronyms.

iam

IAM
Manage access to AWS resources



| User name ▾ | Groups |
|---|---|
| awsstudent | None |
| root-qwkl | |
| user-1 | None |
| user-2 | None |
| user-3 | None |



## Summary

User ARN arn:aws:iam::811381441480:user/spl66/user-1

Path /spl66/

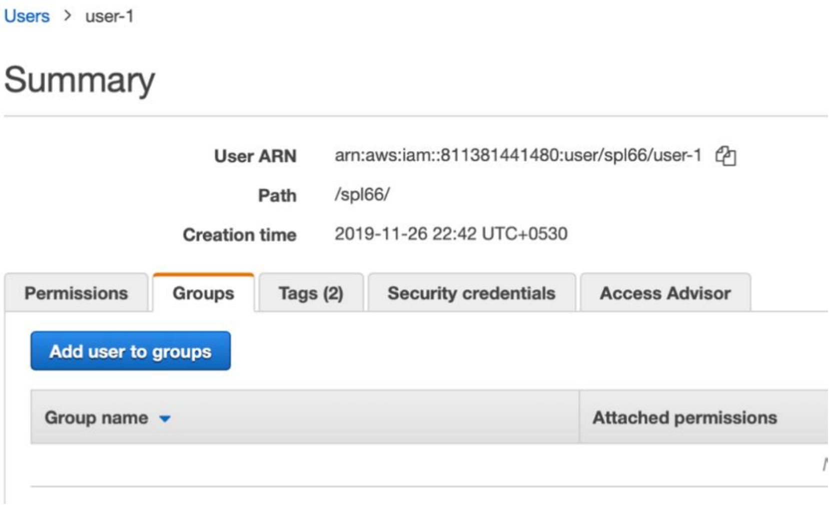
Creation time 2019-11-26 22:42 UTC+0530

Permissions policies

Get started with permissions

This user doesn't have any permissions yet. Get started by adding the user to a group, co

Permissions boundary (not set)



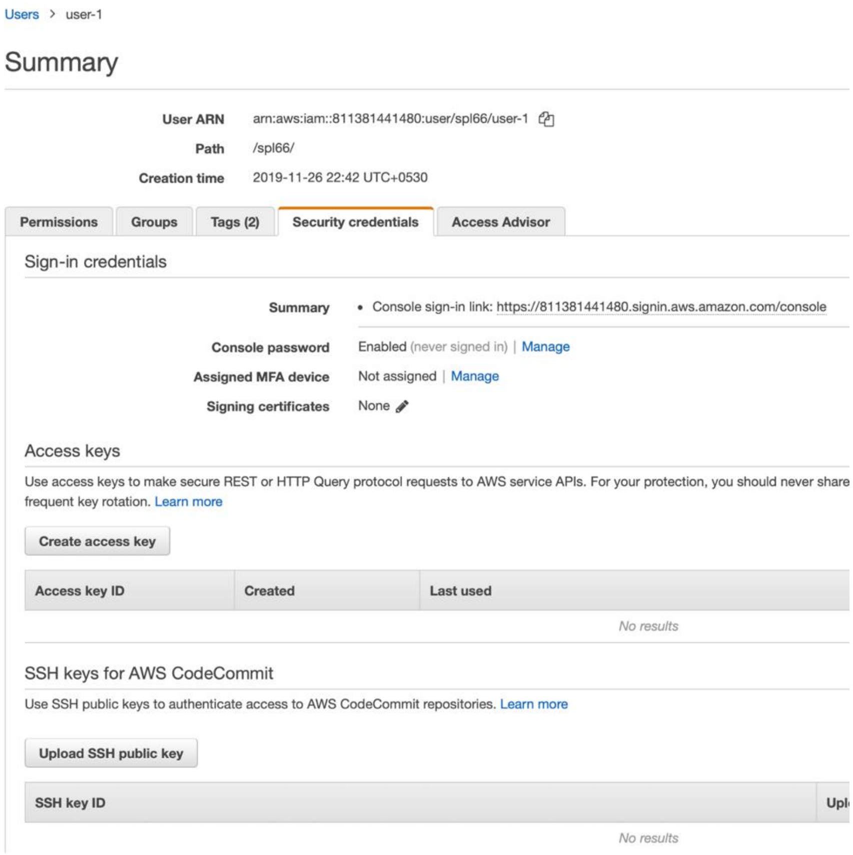
## Summary

User ARN arn:aws:iam::811381441480:user/spl66/user-1

Path /spl66/

Creation time 2019-11-26 22:42 UTC+0530

| Group name | Attached permissions |
|---|---|



## Summary

User ARN arn:aws:iam::811381441480:user/spl66/user-1

Path /spl66/

Creation time 2019-11-26 22:42 UTC+0530

Sign-in credentials

Summary • Console sign-in link: https://811381441480.signin.aws.amazon.com/console

Console password Enabled (never signed in) | Manage

Assigned MFA device Not assigned | Manage

Signing certificates None

Access keys

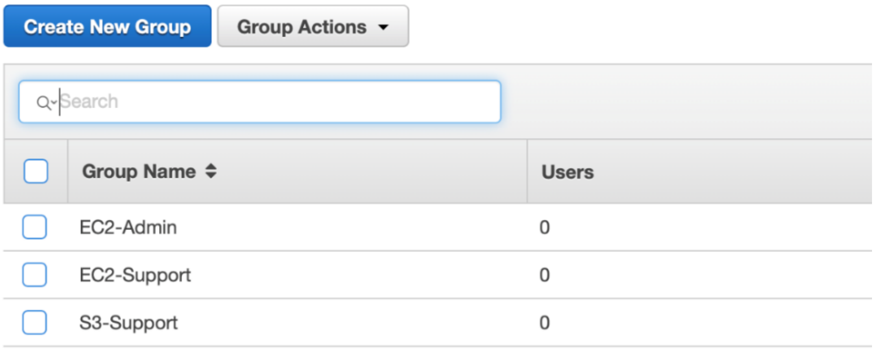
Use access keys to make secure REST or HTTP Query protocol requests to AWS service APIs. For your protection, you should never share frequent key rotation. Learn more

| Access key ID | Created | Last used |
|---|---|---|
| | | No results |

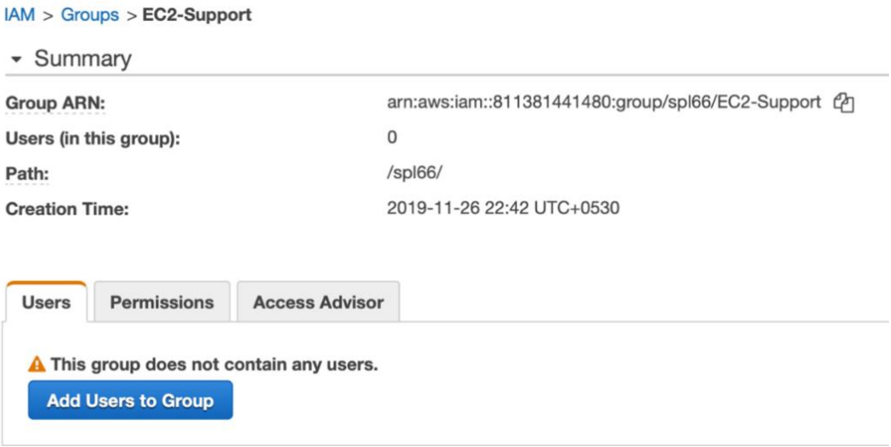
SSH keys for AWS CodeCommit

Use SSH public keys to authenticate access to AWS CodeCommit repositories. Learn more

| SSH key ID | Upl |
|---|---|
| No results | |



| □ | Group Name ⬍ | Users |
|---|---|---|
| □ | EC2-Admin | 0 |
| □ | EC2-Support | 0 |
| □ | S3-Support | 0 |

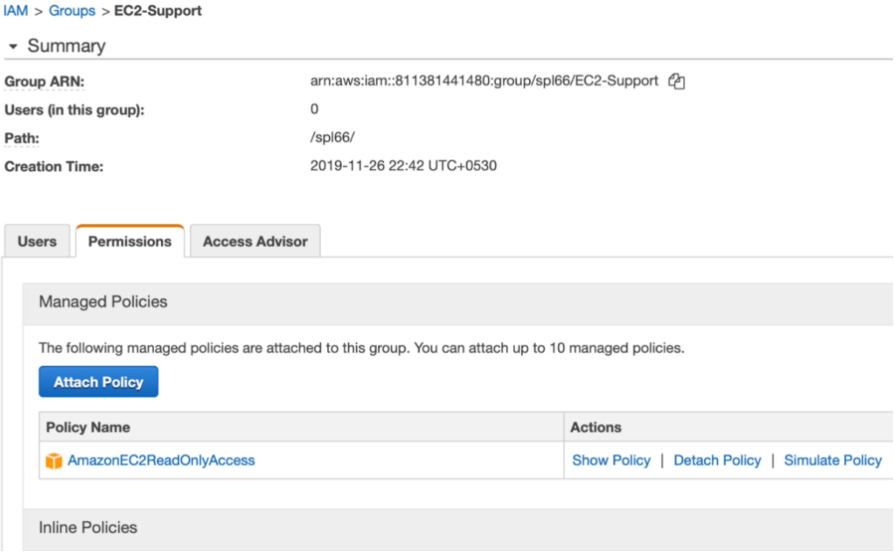


IAM > Groups > EC2-Support

▾ Summary

| | |
|---|---|
| Group ARN: | arn:aws:iam::811381441480:group/spl66/EC2-Support |
| Users (in this group): | 0 |
| Path: | /spl66/ |
| Creation Time: | 2019-11-26 22:42 UTC+0530 |

⚠ This group does not contain any users.



IAM > Groups > EC2-Support

▾ Summary

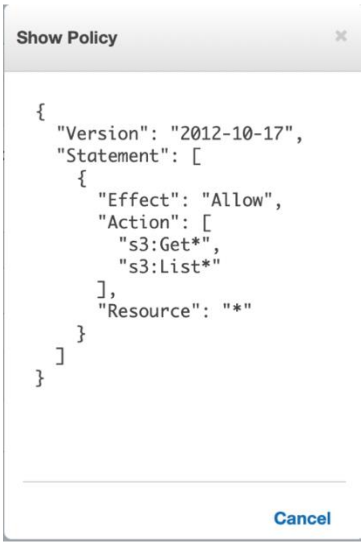
| | |
|---|---|
| Group ARN: | arn:aws:iam::811381441480:group/spl66/EC2-Support |
| Users (in this group): | 0 |
| Path: | /spl66/ |
| Creation Time: | 2019-11-26 22:42 UTC+0530 |

Managed Policies

The following managed policies are attached to this group. You can attach up to 10 managed policies.

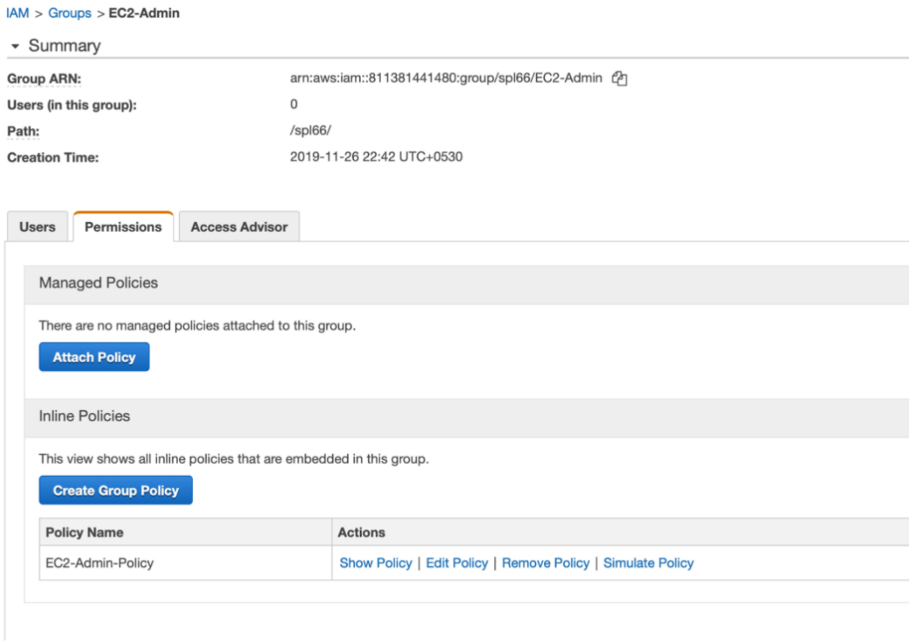
| Policy Name | Actions |
|---|---|
| AmazonEC2ReadOnlyAccess | Show Policy \| Detach Policy \| Simulate Policy |

Inline Policies



Show Policy

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "s3:Get*",
        "s3:List*"
      ],
      "Resource": "*"
    }
  ]
}
```



IAM > Groups > **EC2-Admin**

▾ Summary

| | |
|---|---|
| **Group ARN:** | arn:aws:iam::811381441480:group/spl66/EC2-Admin |
| **Users (in this group):** | 0 |
| **Path:** | /spl66/ |
| **Creation Time:** | 2019-11-26 22:42 UTC+0530 |

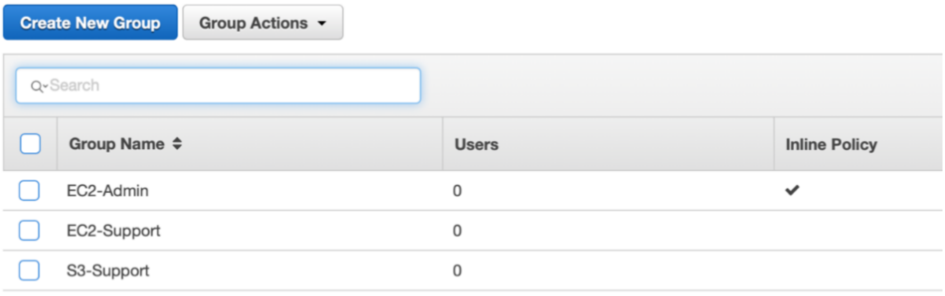
Managed Policies

There are no managed policies attached to this group.

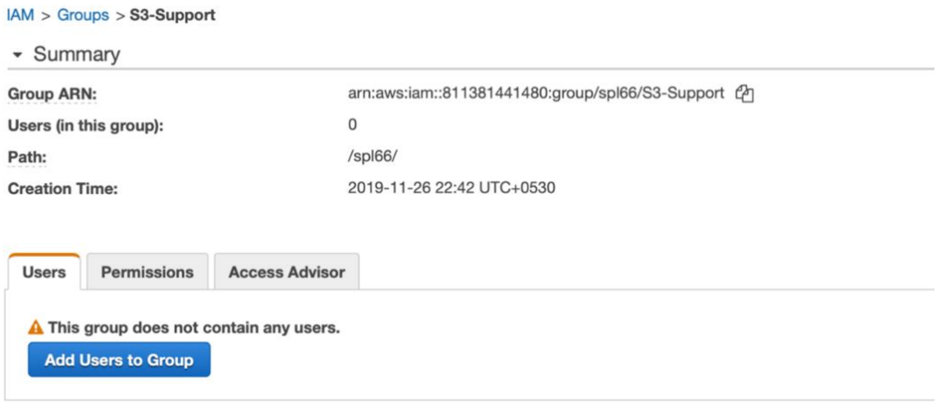
Inline Policies

This view shows all inline policies that are embedded in this group.

| Policy Name | Actions |
|---|---|
| EC2-Admin-Policy | Show Policy \| Edit Policy \| Remove Policy \| Simulate Policy |



| □ | Group Name ⇕ | Users | Inline Policy |
|---|---|---|---|
| □ | EC2-Admin | 0 | ✓ |
| □ | EC2-Support | 0 | |
| □ | S3-Support | 0 | |

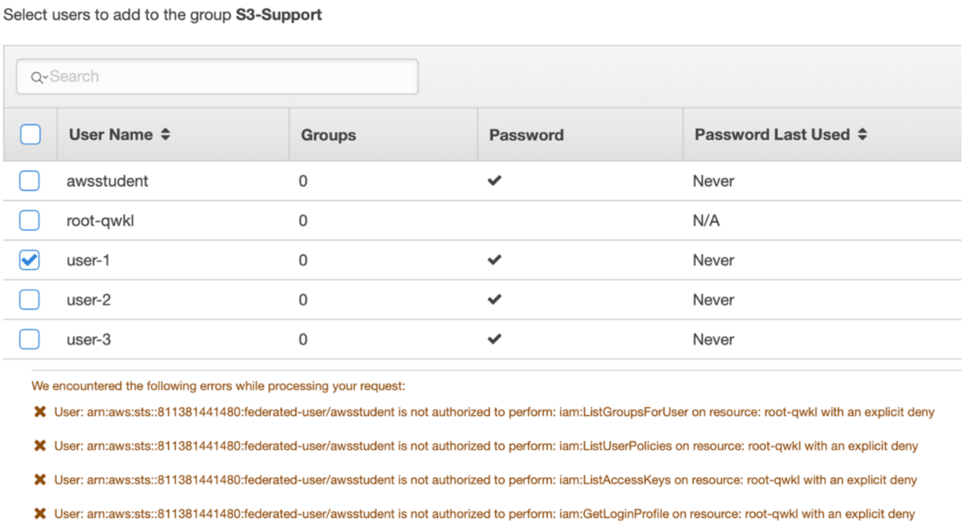


IAM > Groups > **S3-Support**

▾ Summary

| | |
|---|---|
| **Group ARN:** | arn:aws:iam::811381441480:group/spl66/S3-Support |
| **Users (in this group):** | 0 |
| **Path:** | /spl66/ |
| **Creation Time:** | 2019-11-26 22:42 UTC+0530 |

⚠ **This group does not contain any users.**



Select users to add to the group **S3-Support**

| □ | User Name ⇕ | Groups | Password | Password Last Used ⇕ |
|---|---|---|---|---|
| □ | awsstudent | 0 | ✓ | Never |
| □ | root-qwkl | 0 | | N/A |
| ☑ | user-1 | 0 | ✓ | Never |
| □ | user-2 | 0 | ✓ | Never |
| □ | user-3 | 0 | ✓ | Never |

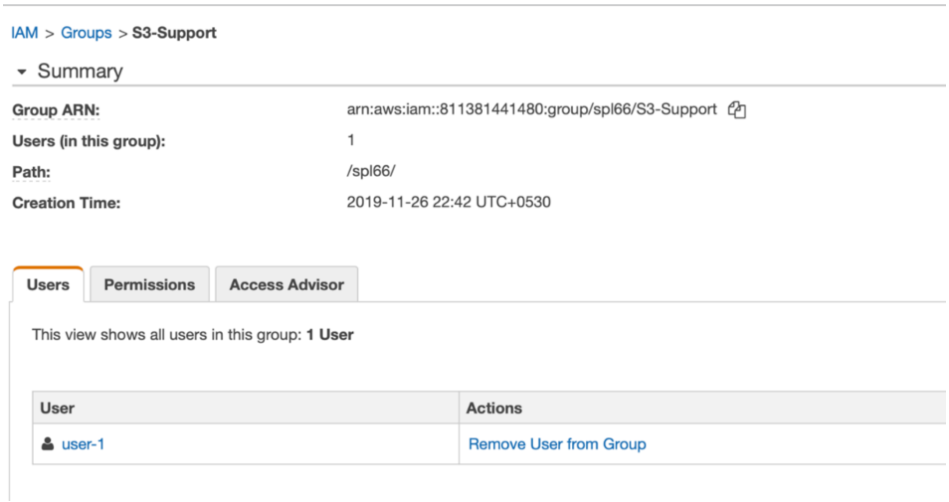
We encountered the following errors while processing your request:

✖ User: arn:aws:sts::811381441480:federated-user/awsstudent is not authorized to perform: iam:ListGroupsForUser on resource: root-qwkl with an explicit deny

✖ User: arn:aws:sts::811381441480:federated-user/awsstudent is not authorized to perform: iam:ListUserPolicies on resource: root-qwkl with an explicit deny

✖ User: arn:aws:sts::811381441480:federated-user/awsstudent is not authorized to perform: iam:ListAccessKeys on resource: root-qwkl with an explicit deny

✖ User: arn:aws:sts::811381441480:federated-user/awsstudent is not authorized to perform: iam:GetLoginProfile on resource: root-qwkl with an explicit deny



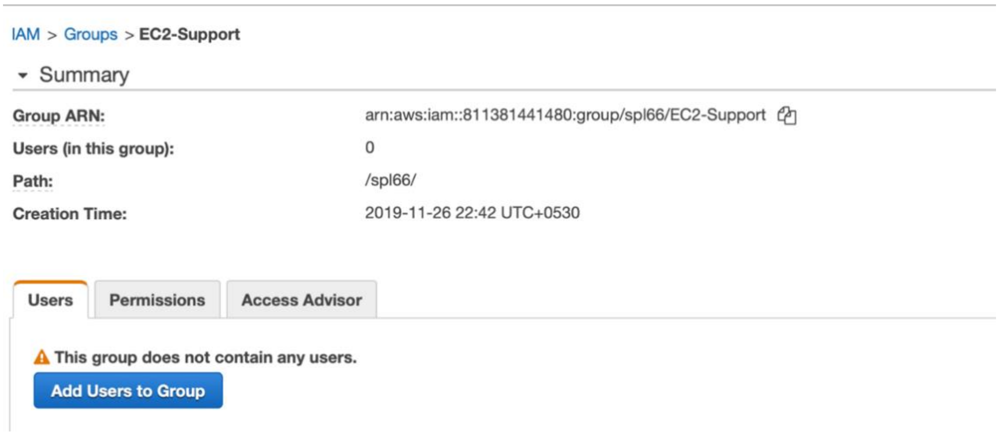
IAM > Groups > **S3-Support**

Summary

| | |
|---|---|
| **Group ARN:** | arn:aws:iam::811381441480:group/spl66/S3-Support |
| **Users (in this group):** | 1 |
| **Path:** | /spl66/ |
| **Creation Time:** | 2019-11-26 22:42 UTC+0530 |

This view shows all users in this group: **1 User**

| User | Actions |
|---|---|
| user-1 | Remove User from Group |

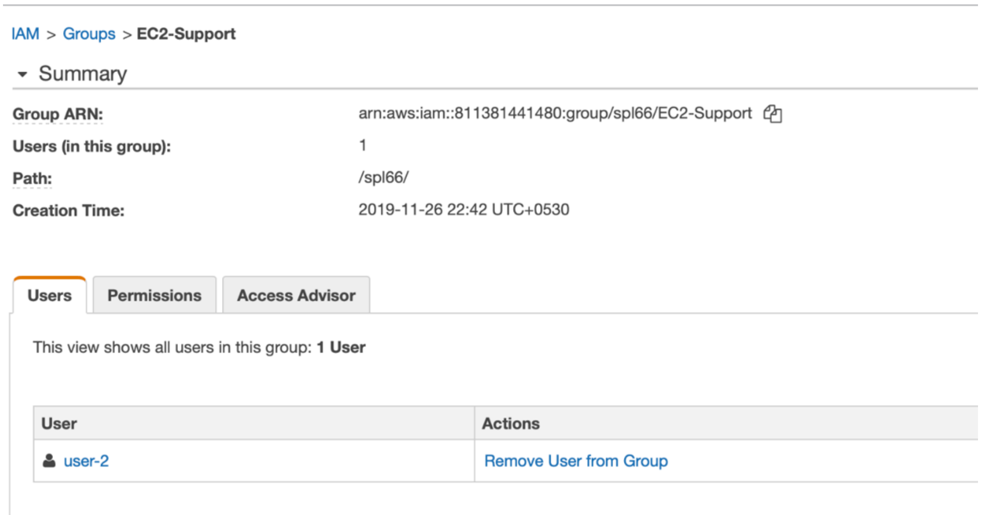


IAM > Groups > **EC2-Support**

Summary

| | |
|---|---|
| **Group ARN:** | arn:aws:iam::811381441480:group/spl66/EC2-Support |
| **Users (in this group):** | 0 |
| **Path:** | /spl66/ |
| **Creation Time:** | 2019-11-26 22:42 UTC+0530 |

⚠ **This group does not contain any users.**



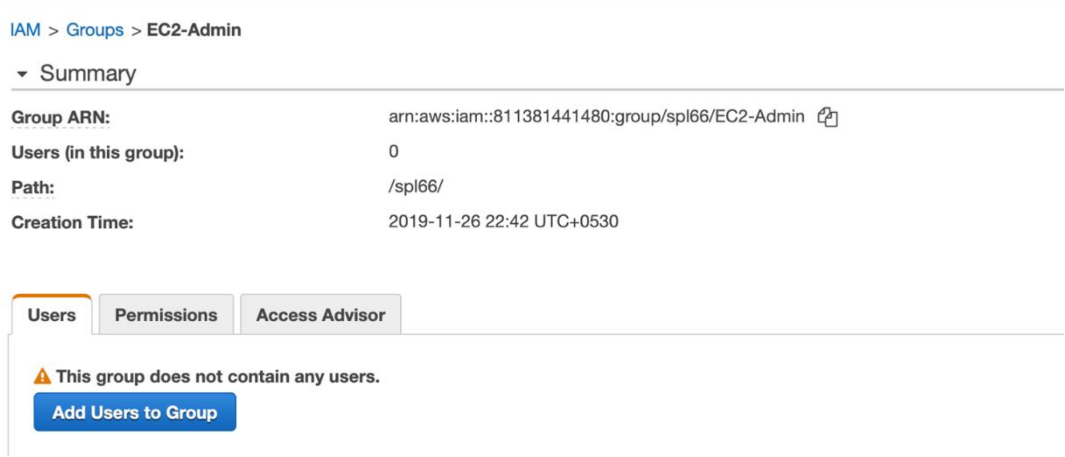
IAM > Groups > **EC2-Support**

Summary

| | |
|---|---|
| **Group ARN:** | arn:aws:iam::811381441480:group/spl66/EC2-Support |
| **Users (in this group):** | 1 |
| **Path:** | /spl66/ |
| **Creation Time:** | 2019-11-26 22:42 UTC+0530 |

This view shows all users in this group: **1 User**

| User | Actions |
|---|---|
| user-2 | Remove User from Group |

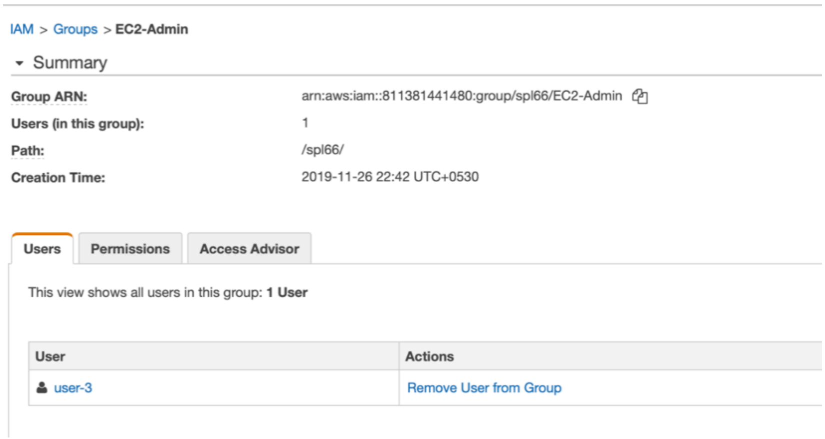


IAM > Groups > **EC2-Admin**

Summary

| | |
|---|---|
| **Group ARN:** | arn:aws:iam::811381441480:group/spl66/EC2-Admin |
| **Users (in this group):** | 0 |
| **Path:** | /spl66/ |
| **Creation Time:** | 2019-11-26 22:42 UTC+0530 |

⚠ **This group does not contain any users.**



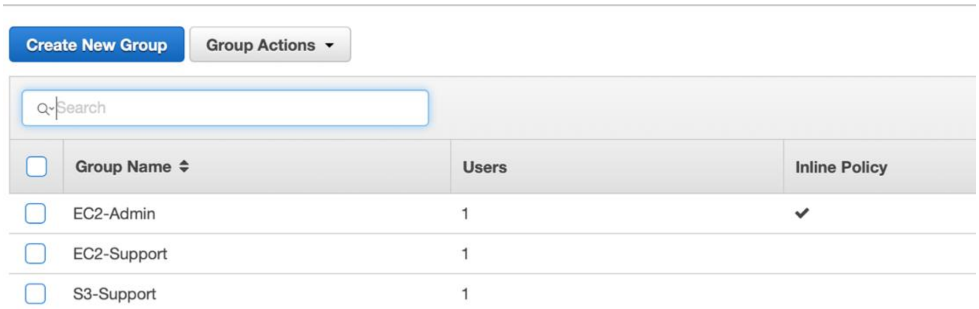
IAM > Groups > EC2-Admin

Summary

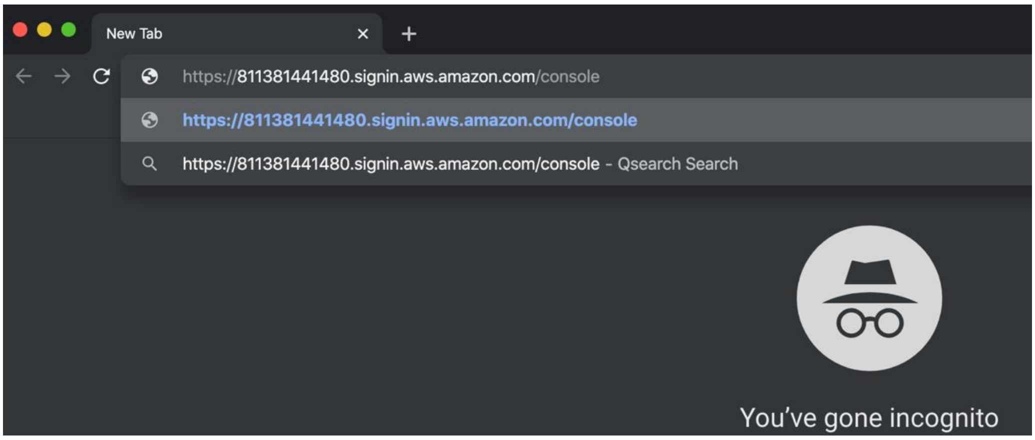
| | |
|---|---|
| Group ARN: | arn:aws:iam::811381441480:group/spl66/EC2-Admin |
| Users (in this group): | 1 |
| Path: | /spl66/ |
| Creation Time: | 2019-11-26 22:42 UTC+0530 |

This view shows all users in this group: **1 User**

| User | Actions |
|---|---|
| user-3 | Remove User from Group |



| ☐ | Group Name | Users | Inline Policy |
|---|---|---|---|
| ☐ | EC2-Admin | 1 | ✓ |
| ☐ | EC2-Support | 1 | |
| ☐ | S3-Support | 1 | |

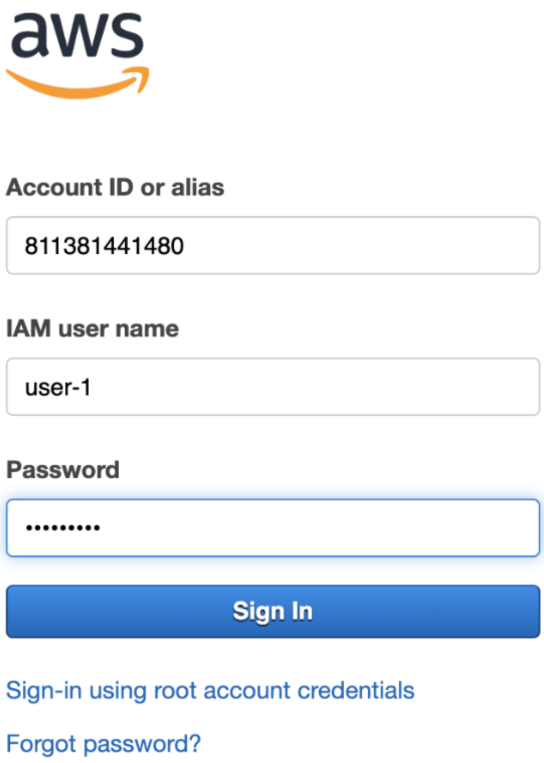


https://811381441480.signin.aws.amazon.com/console

https://811381441480.signin.aws.amazon.com/console

https://811381441480.signin.aws.amazon.com/console - Qsearch Search

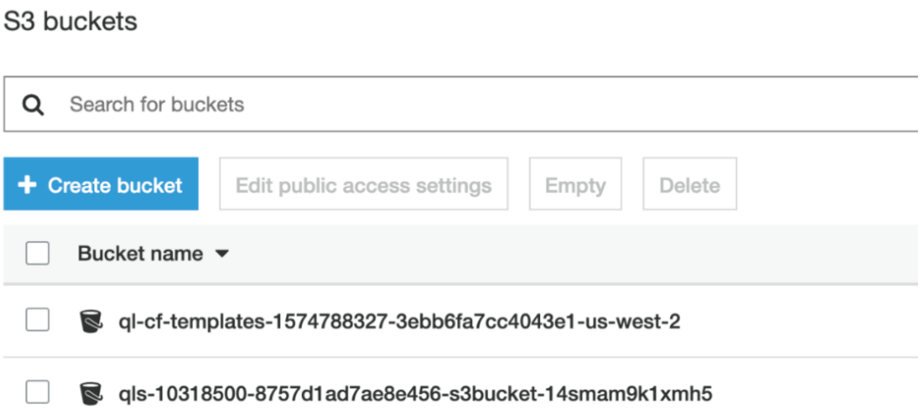
You've gone incognito



Account ID or alias: 811381441480

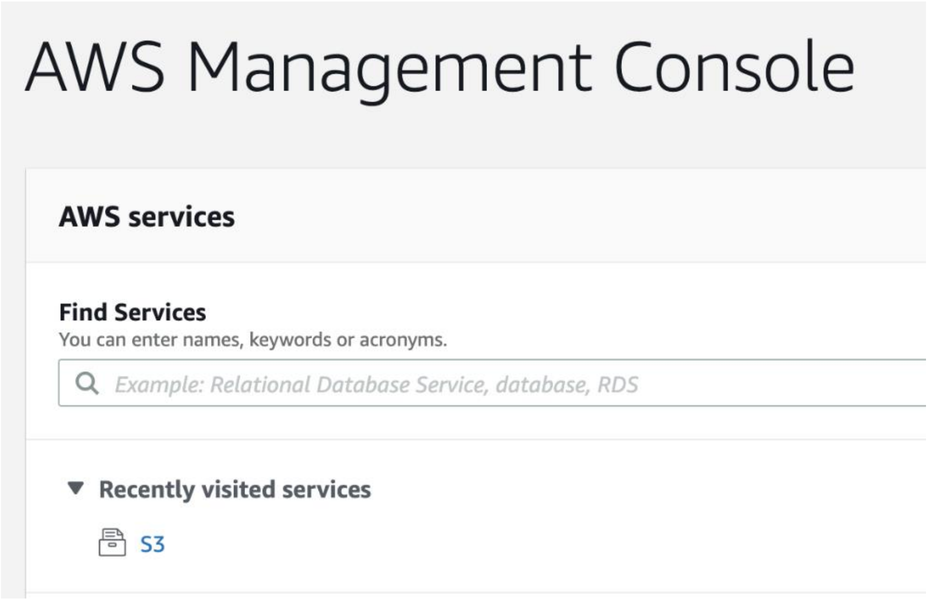
IAM user name: user-1

Password: •••••••••



S3 buckets

| □ | Bucket name |
|---|---|
| □ | ql-cf-templates-1574788327-3ebb6fa7cc4043e1-us-west-2 |
| □ | qls-10318500-8757d1ad7ae8e456-s3bucket-14smam9k1xmh5 |



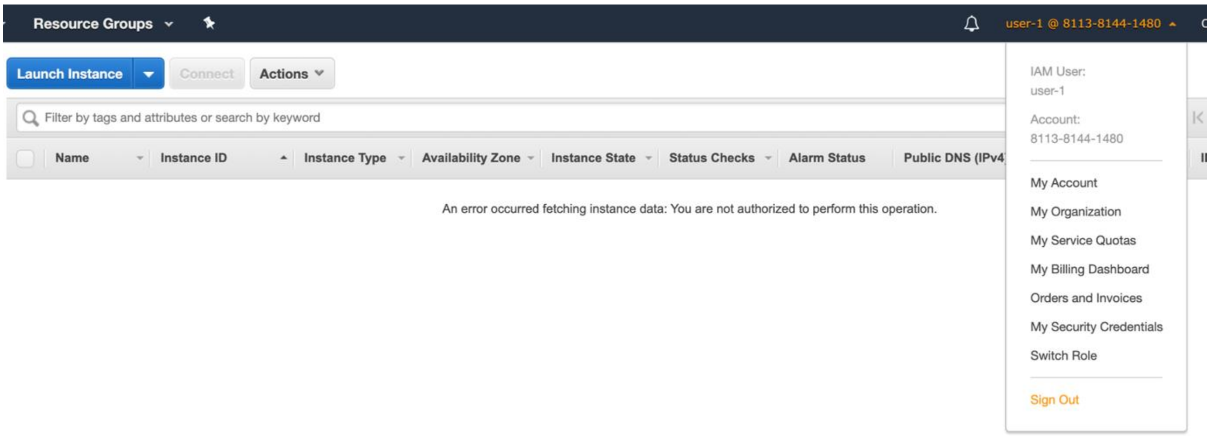
AWS Management Console

AWS services

Find Services

You can enter names, keywords or acronyms.

Example: Relational Database Service, database, RDS
Recently visited services
S3

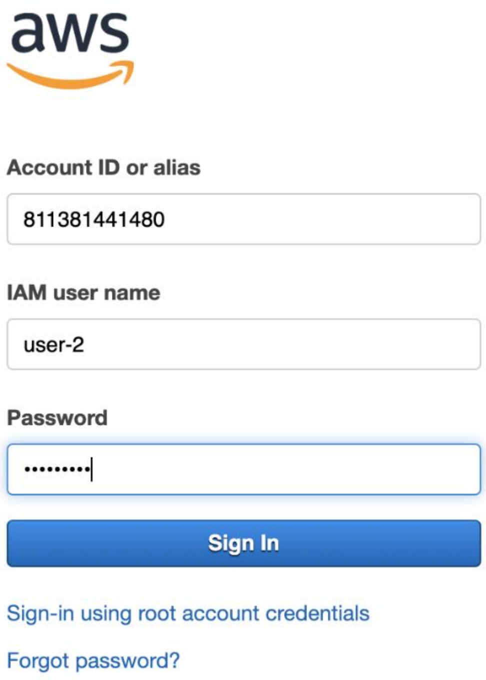


| □ | Name | Instance ID | Instance Type | Availability Zone | Instance State | Status Checks | Alarm Status | Public DNS (IPv4 |
|---|---|---|---|---|---|---|---|---|

An error occurred fetching instance data: You are not authorized to perform this operation.

IAM User:
user-1

Account:
8113-8144-1480



Account ID or alias

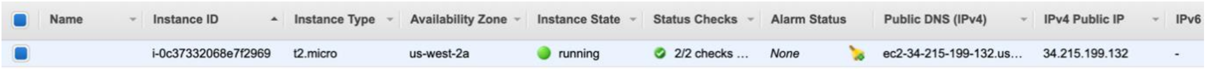
811381441480

IAM user name

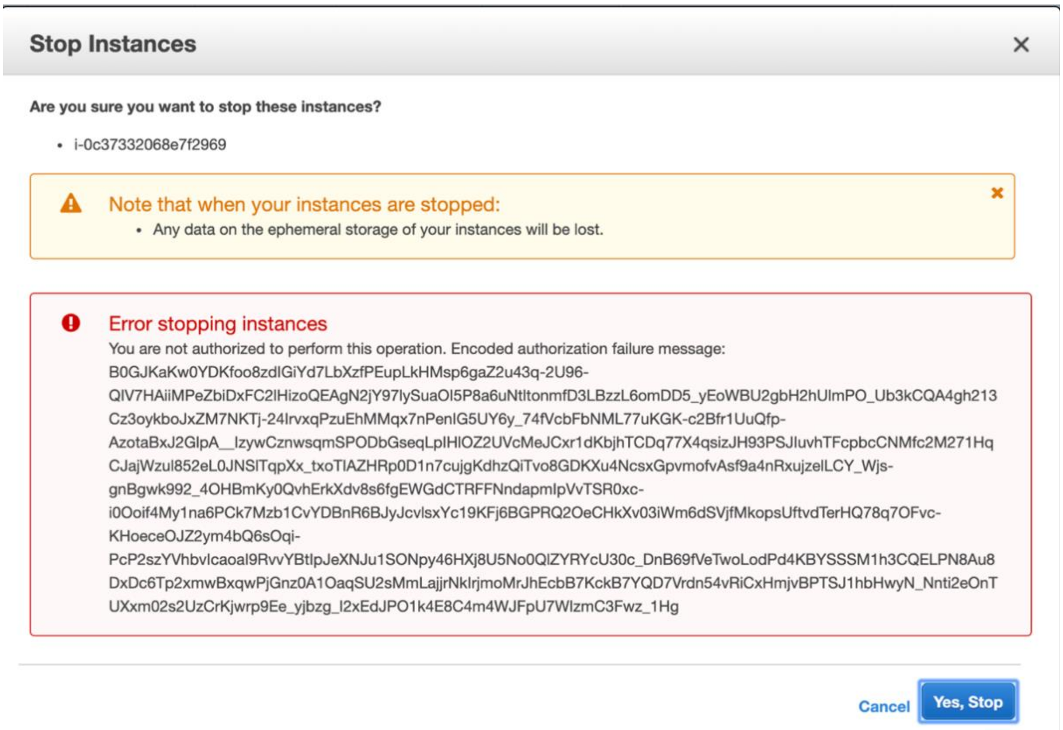
user-2

Password

•••••••••



| ☐ | Name | Instance ID | Instance Type | Availability Zone | Instance State | Status Checks | Alarm Status | Public DNS (IPv4) | IPv4 Public IP | IPv6 |
|---|---|---|---|---|---|---|---|---|---|---|
| ☐ | | i-0c37332068e7f2969 | t2.micro | us-west-2a | ● running | ✓ 2/2 checks ... | None | ec2-34-215-199-132.us... | 34.215.199.132 | - |



Stop Instances

Are you sure you want to stop these instances?

- i-0c37332068e7f2969

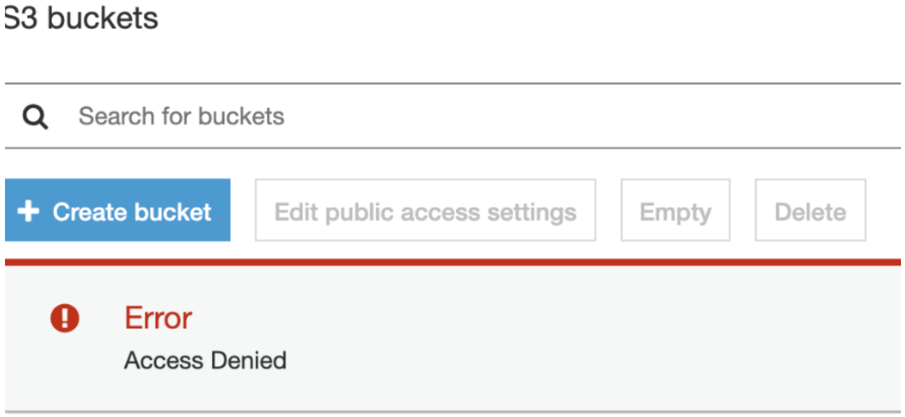
Note that when your instances are stopped:

- Any data on the ephemeral storage of your instances will be lost.

Error stopping instances

You are not authorized to perform this operation. Encoded authorization failure message:

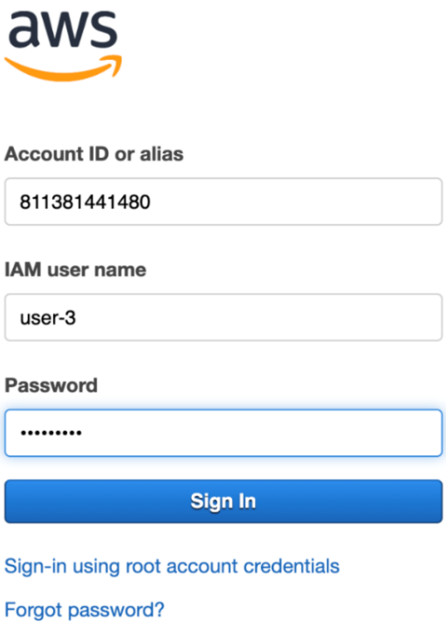
```
B0GJKaKw0YDKfoo8zdlGiYd7LbXzfPEupLkHMsp6gaZ2u43q-2U96-
QIV7HAiiMPeZbiDxFC2lHizoQEAgN2jY97lySuaOI5P8a6uNtltonmfD3LBzzL6omDD5_yEoWBU2gbH2hUlmPO_Ub3kCQA4gh213
Cz3oykboJxZM7NKTj-24lrvxqPzuEhMMqx7nPenlG5UY6y_74fVcbFbNML77uKGK-c2Bfr1UuQfp-
AzotaBxJ2GlpA__IzywCznwsqmSPODbGseqLpIHlOZ2UVcMeJCxr1dKbjhTCDq77X4qsizJH93PSJluvhTFcpbcCNMfc2M271Hq
CJajWzul852eL0JNSlTqpXx_txoTlAZHRp0D1n7cujgKdhzQiTvo8GDKXu4NcsxGpvmofvAsf9a4nRxujzelLCY_Wjs-
gnBgwk992_4OHBmKy0QvhErkXdv8s6fgEWGdCTRFFNndapmlpVvTSR0xc-
i0Ooif4My1na6PCk7Mzb1CvYDBnR6BJyJcvlsxYc19KFj6BGPRQ2OeCHkXv03iWm6dSVjfMkopsUftvdTerHQ78q7OFvc-
KHoeceOJZ2ym4bQ6sOqi-
PcP2szYVhbvlcaoal9RvvYBtlpJeXNJu1SONpy46HXj8U5No0QlZYRYcU30c_DnB69fVeTwoLodPd4KBYSSSM1h3CQELPN8Au8
DxDc6Tp2xmwBxqwPjGnz0A1OaqSU2sMmLajjrNklrjmoMrJhEcbB7KckB7YQD7Vrdn54vRiCxHmjvBPTSJ1hbHwyN_Nnti2eOnT
UXxm02s2UzCrKjwrp9Ee_yjbzg_l2xEdJPO1k4E8C4m4WJFpU7WlzmC3Fwz_1Hg
```



S3 buckets

Error

Access Denied



Account ID or alias

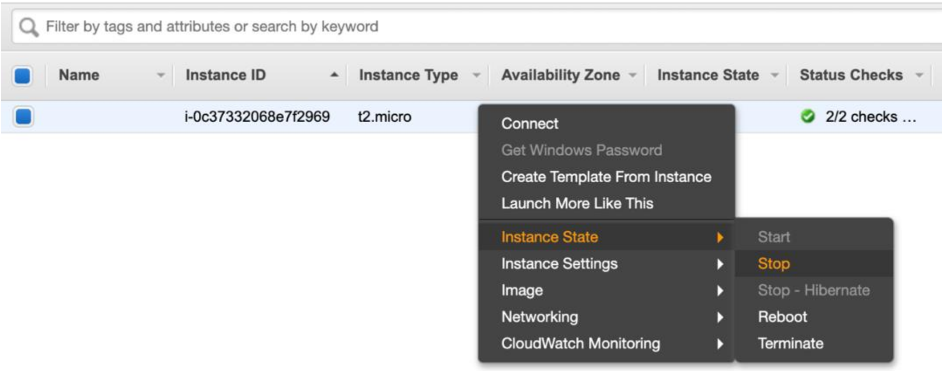
811381441480

IAM user name

user-3

Password

•••••••••



Filter by tags and attributes or search by keyword

| ☐ | Name | Instance ID | Instance Type | Availability Zone | Instance State | Status Checks |
|---|---|---|---|---|---|---|
| ■ | | i-0c37332068e7f2969 | t2.micro | | | ✓ 2/2 checks … |