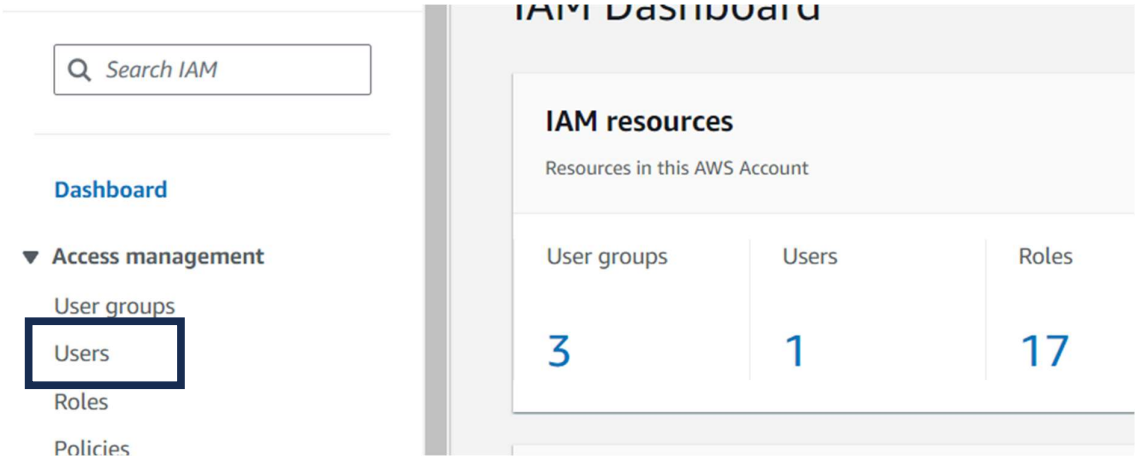
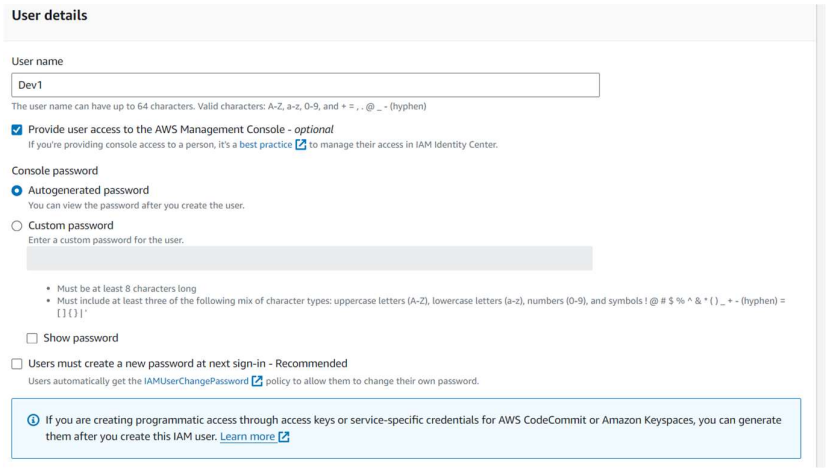
1. Create IAM Users

1. **Login to AWS Management Console**.
2. **Navigate to IAM** (Identity and Access Management).
3. In the left navigation pane, click on **Users**.



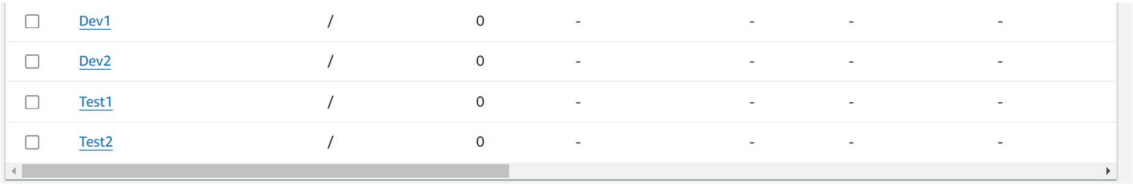
4. Click on **Add user**.
5. For each user:
    - Enter the user name (Dev1, Dev2, Test1, Test2).
    - Select **AWS Management Console access**.
    - Set a custom password or let AWS auto-generate it.
    - Uncheck the option for "User must create a new password at next sign-in" if you do not want them to change the password at the first login.



    - Click **Next: Permissions**.
    - On the Set permissions page, select **Attach policies directly** or **Add user to group**.
    - Click **Next: Tags**.

- Add any tags if needed (optional).
- Click **Next: Review**.
- Review the details and click **Create user**.

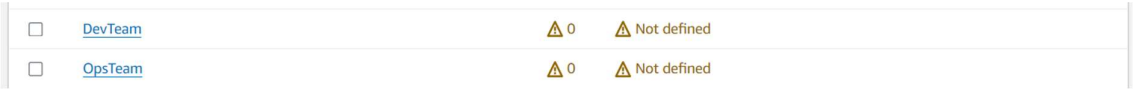
Repeat these steps for each user: Dev1, Dev2, Test1, and Test2.



2. Create IAM Groups

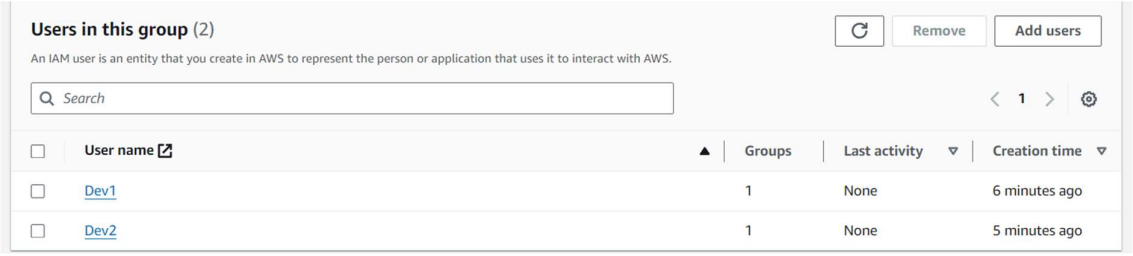
1. In the IAM Dashboard, click on **User groups** in the left navigation pane.
2. Click on **Create group**.
3. For **Group name**, enter **Dev Team**.
4. Click **Next step**.
5. Attach policies as needed (optional).
6. Click **Create group**.

Repeat these steps to create the **Ops Team** group.



3. Add Dev1 and Dev2 to the Dev Team

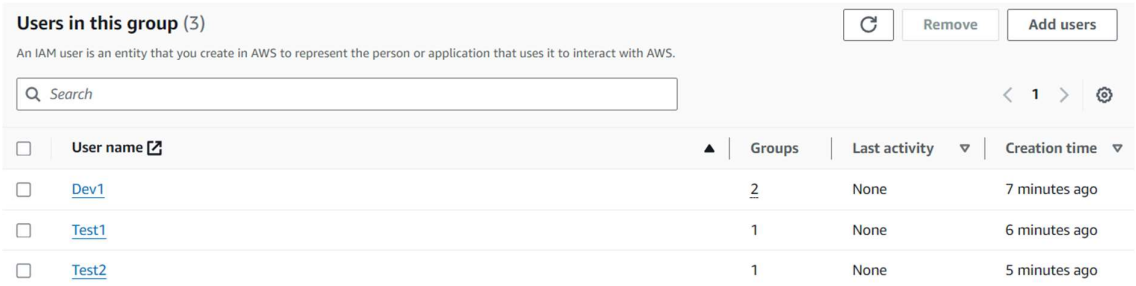
1. Go to the **Dev Team** group.
2. Click on **Add users to group**.
3. Select **Dev1** and **Dev2**.
4. Click **Add users**.



4. Add Dev1, Test1, and Test2 to the Ops Team

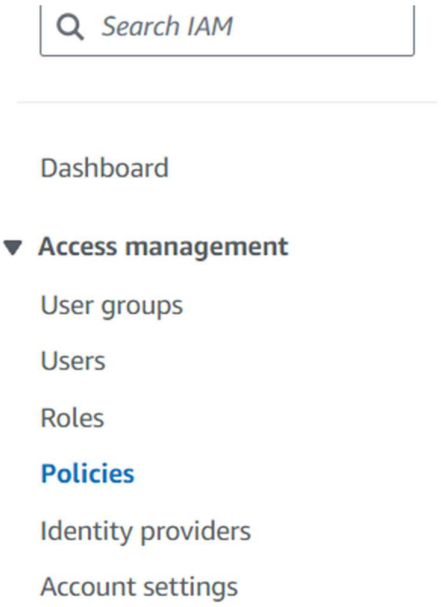
1. Go to the **Ops Team** group.
2. Click on **Add users to group**.
3. Select **Dev1**, **Test1**, and **Test2**.

4. Click **Add users**.



5. Create Policy Number 1

1. **Login to AWS Management Console**.
2. **Navigate to IAM** (Identity and Access Management).
3. In the left navigation pane, click on **Policies**.
4. Click on **Create policy**.



Step 1: Add S3 Full Access

1. Under the **Service** dropdown, type and select **S3**.
2. Under **Actions**, check the box for **All S3 actions**.
3. Under **Resources**, check the box for **All resources**.

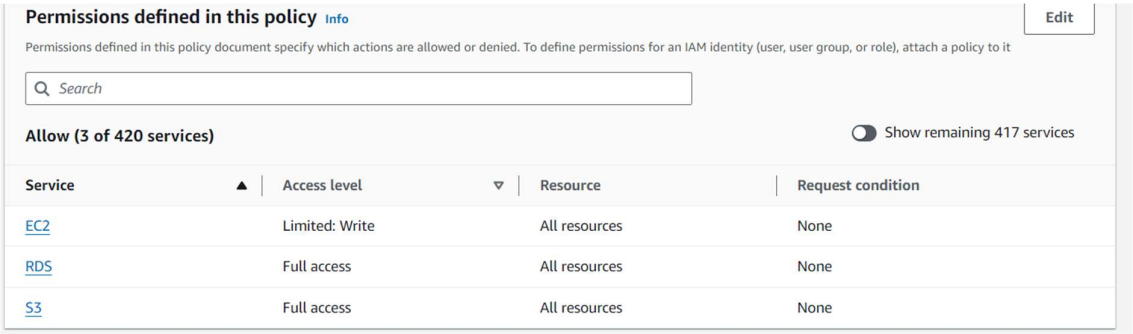
Step 2: Add EC2 RunInstances Permission

1. Click on **Add additional permissions**.
2. Under the **Service** dropdown, type and select **EC2**.
3. Under **Actions**, check the box for **Specific actions**.

4. Expand the **Write** section and check the box for **RunInstances**.
5. Under **Resources**, check the box for **All resources**.

Step 3: Add RDS Full Access

1. Click on **Add additional permissions**.
2. Under the **Service** dropdown, type and select **RDS**.
3. Under **Actions**, check the box for **All RDS actions**.
4. Under **Resources**, check the box for **All resources**.
5. Click on **Next: Tags** (optional).
6. Click on **Next: Review**.
7. Enter a **Name** (e.g., PolicyNumber1) and **Description** (optional).
8. Click on **Create policy**.



Create Policy Number 2

1. In the left navigation pane, click on **Policies**.
2. Click on **Create policy**.
3. Click on the **Visual editor** tab.

Step 1: Add CloudWatch Full Access

1. Under the **Service** dropdown, type and select **CloudWatch**.
2. Under **Actions**, check the box for **All CloudWatch actions**.
3. Under **Resources**, check the box for **All resources**.

Step 2: Add Billing Full Access

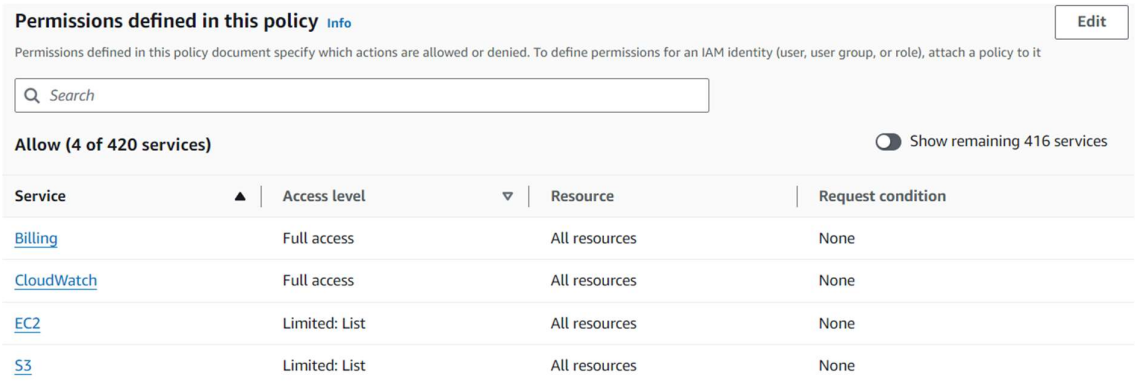
1. Click on **Add additional permissions**.
2. Under the **Service** dropdown, type and select **Billing**.
3. Under **Actions**, check the box for **All Billing actions**.

Step 3: Add EC2 List Permission

1. Click on **Add additional permissions**.
2. Under the **Service** dropdown, type and select **EC2**.
3. Under **Actions**, check the box for **Specific actions**.
4. Expand the **List** section and check the boxes for **DescribeInstances** and **DescribeVolumes**.
5. Under **Resources**, check the box for **All resources**.

Step 4: Add S3 List Permission

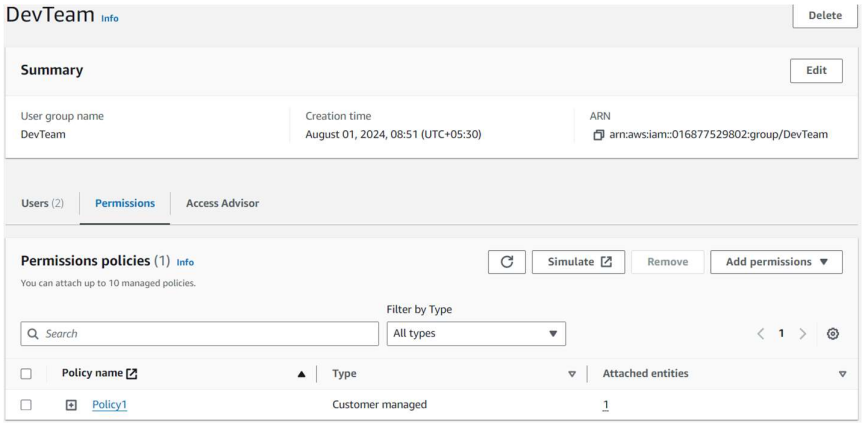
1. Click on **Add additional permissions**.
2. Under the **Service** dropdown, type and select **S3**.
3. Under **Actions**, check the box for **Specific actions**.
4. Expand the **List** section and check the box for **ListBucket**.
5. Under **Resources**, check the box for **All resources**.
6. Click on **Next: Tags** (optional).
7. Click on **Next: Review**.
8. Enter a **Name** (e.g., PolicyNumber2) and **Description** (optional).
9. Click on **Create policy**.



6. Attach Policy Number 1 to the Dev Team

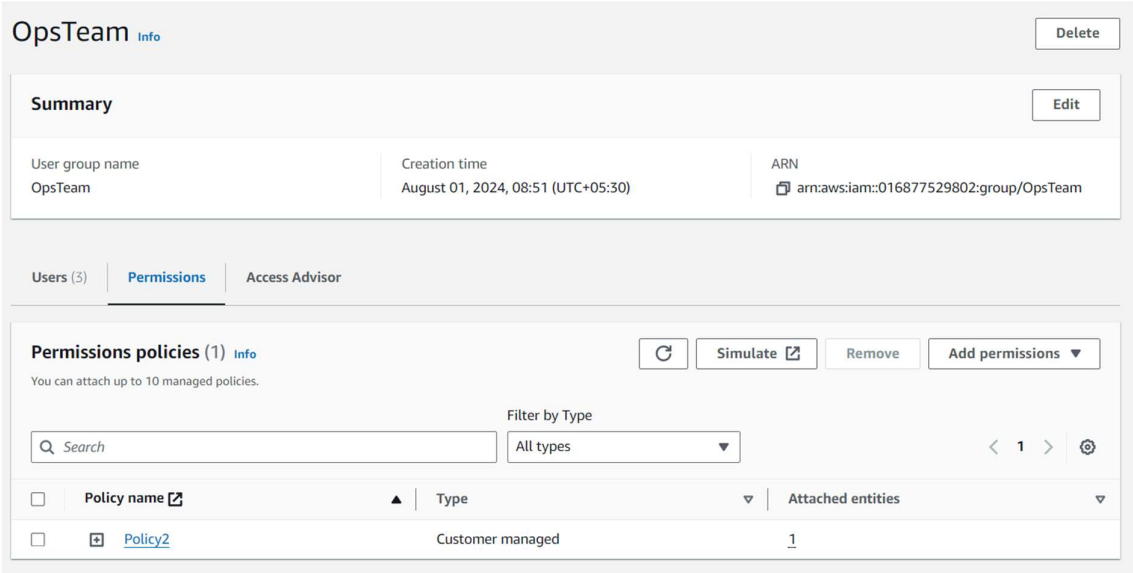
1. In the IAM Dashboard, click on **User groups** in the left navigation pane.
2. Select **Dev Team**.
3. Click on the **Permissions** tab.
4. Click on **Add permissions**.
5. Select **Attach policies**.
6. Search for PolicyNumber1.
7. Select the policy and click on **Next: Review**.

8. Click on **Add permissions**.



7. Attach Policy Number 2 to the Ops Team

1. In the IAM Dashboard, click on **User groups** in the left navigation pane.
2. Select **Ops Team**.
3. Click on the **Permissions** tab.
4. Click on **Add permissions**.
5. Select **Attach policies**.
6. Search for PolicyNumber2.
7. Select the policy and click on **Next: Review**.
8. Click on **Add permissions**.



Steps to Create a Role and Test It

Steps to Create the Role

1. **Login to AWS Management Console.**
2. **Navigate to IAM (Identity and Access Management).**
3. **In the left navigation pane, click on Roles.**
4. **Click on Create role.**

Step 1: Select Trusted Entity

1. **Under Trusted entity type, select AWS account.**
2. **Select This account.**
3. **Check the box for Require external ID and enter a unique identifier (optional).**
4. **Click on Next: Permissions.**

Step 2: Attach Policies

Create a Custom Policy for Complete Access to VPCs and DynamoDB

1. **In the IAM Dashboard, click on Policies in the left navigation pane.**
2. **Click on Create policy.**
3. **Click on the Visual editor tab.**
4. **Under Service, type and select VPC.**
5. **Under Actions, check the box for All VPC actions.**
6. **Under Resources, check the box for All resources.**
7. **Click on Add additional permissions.**
8. **Under Service, type and select DynamoDB.**
9. **Under Actions, check the box for All DynamoDB actions.**
10. **Under Resources, check the box for All resources.**
11. **Click on Next: Tags (optional).**
12. **Click on Next: Review.**
13. **Enter a Name (e.g., VPCDynamoDBFullAccess) and Description (optional).**
14. **Click on Create policy.**

Attach the Custom Policy to the Role

1. **Go back to Create role.**
2. **Click on Refresh in the Attach permissions policies step.**
3. **Search for VPCDynamoDBFullAccess.**
4. **Select the policy and click on Next: Tags (optional).**
5. **Click on Next: Review.**

Step 3: Role Name and Description

1. **Enter a Role name (e.g., VPCDynamoDBRole) and Description (optional).**
2. **Click on Create role.**

2. Allow Only Specific Users to Assume the Role

Edit the Trust Relationship

1. **In the IAM Dashboard, click on Roles in the left navigation pane.**
2. **Select the role you created (e.g., VPCDynamoDBRole).**
3. **Go to the Trust relationships tab.**
4. **Click on Edit trust relationship.**
5. **Replace the existing policy with the following JSON, modifying AccountID with your AWS account ID and replacing User1 and User2 with the actual user names:**

json

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Principal": {
        "AWS": [
          "arn:aws:iam::AccountID:user/User1",
          "arn:aws:iam::AccountID:user/User2"
        ]
      },
      "Action": "sts:AssumeRole"
    }
  ]
}
```

6. **Click on Update Trust Policy.**

3. Test the Role with User1

Login as User1

1. **Sign out from your current AWS session.**

2. **Login as User1.**

Assume the Role

1. **In the AWS Management Console, navigate to IAM.**
2. **In the left navigation pane, click on Roles.**
3. **Find and click on the role you created (e.g., VPCDynamoDBRole).**
4. **Click on Assume role.**
5. **Confirm the switch.**

Test Access

1. **Navigate to VPC and DynamoDB services in the AWS Management Console.**
2. **Ensure that User1 has complete access to both VPCs and DynamoDB.**