

Assignment-3

Instruction Steps for Creating an IAM User and Granting Full S3 Access

Objective

Learn how to create an IAM user in AWS, assign permissions through a group, and grant full access to the S3 service.

Prerequisites

1. AWS Management Console access.
 2. Permissions to create IAM users and groups in your AWS account.
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Step-by-Step Instructions

A. Creating an IAM User

1. **Sign In:** Log in to the AWS Management Console and open the **IAM Console**.
 2. **Navigate to Users:**
 - In the left-hand navigation pane, select **Users**.
 - Click **Add user**.
 3. **Add User Details:**
 - Enter the user name (e.g., **U1**).
 - Select **Access Type** as **AWS Management Console access**.
 4. **Set Password:**
 - Choose one:
 - **Auto-generated password** (AWS generates a random password).
 - **Custom password** (you define the password).
 - For this exercise, enter a custom password.
 - Uncheck **Require password reset**.
 - Click **Next**.
 5. **Assign Permissions:**
 - You can assign permissions in three ways. For now, skip this step and assign permissions later.
 6. **Review:**
 - On the **Review** page, confirm the entered details.
 - Click **Create user**.
 7. **Download Credentials:**
 - Download the `.csv` file containing the credentials (username and password).
 - Save it securely.
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B. Creating a Group and Assigning Permissions

1. **Navigate to Groups:**
 - In the IAM Console, navigate to **User Groups**.
 - Click **Create group**.
 2. **Define Group Details:**
 - Enter a group name (e.g., **g1**).
 - In the **Permissions Policies**, search for **S3**.
 - Select the policies for **Full Access** to S3 (e.g., `AmazonS3FullAccess`).
 3. **Add User to the Group:**
 - After creating the group, go to **Users**.
 - Select the newly created user (e.g., **U1**).
 - Under the **Groups** tab, click **Add user to groups**.
 - Choose the group (e.g., **g1**) and add the user.
 4. **Verify:**
 - Navigate back to the user details.
 - Ensure the user is listed under the group with appropriate permissions.
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C. Log In with the New IAM User

1. **Access AWS Console:**
 - Use the credentials saved in the `.csv` file.
 - Log in to the AWS console as the IAM user.
 2. **Test Permissions:**
 - Navigate to the **S3 Console**.
 - Verify that the IAM user has full access by creating or managing S3 buckets and objects.
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Expected Outcome

By following these steps:

- An IAM user with secure login credentials is created.
 - Permissions to access S3 services are granted via a group.
 - The user can log in and perform operations in S3 as intended.
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Remarks

- **Security Best Practice:** Use the **Principle of Least Privilege** to grant only necessary permissions.
- **Password Policy:** Enforce a strong password policy for better security.
- **Multi-Factor Authentication (MFA):** Consider enabling MFA for the IAM user for enhanced security.
- **Audit Regularly:** Periodically review and update user permissions to align with security requirements.