18CSE316J – ESSENTIALS IN CLOUD AND DEVOPS

1. Creating AWS Account

Procedure:

1. Open the Amazon Web Services home page .

2. Choose **Create an AWS account**.

3. Enter your account information, and then choose **Verify email address**. This will send a verification code to your specified email address.

4. Enter your verification code, and then choose **Verify**.

5. Enter a strong password for your root user, confirm it, and then choose **Continue**. AWS requires that your password meet the following conditions:

   1. It must have a minimum of 8 characters and a maximum of 128 characters.

   2. It must include a minimum of three of the following mix of character types: uppercase, lowercase, numbers, and ! @ # $ % ^ & * () <> [] {} | _+-= symbols.

   3. It must not be identical to your AWS account name or email address.

6. Choose **Business** or **Personal**. Personal accounts and business accounts have the same features and functions.

7. Enter your company or personal information.

8. Read and accept the AWS Customer Agreement. Be sure that you read and understand the terms of the AWS Customer Agreement.

9. Choose **Continue**. At this point, you'll receive an email message to confirm that your AWS account is ready to use. You can sign in to your new account by using the email address and password you provided during sign up. However, you can't use any AWS services until you finish activating your account.

10. Enter the information about your payment method, and then choose **Verify and Continue**. If you want to use a different billing address for your AWS billing information, choose **Use a new address**.

    You can't proceed with the sign-up process until you add a valid payment method.

11. Enter your country or region code from the list, and then enter a phone number where you can be reached in the next few minutes.

12. Enter the code displayed in the CAPTCHA, and then submit.

13. When the automated system contacts you, enter the PIN you receive and then submit.

14. Select one of the available AWS Support plans. For a description of the available Support plans and their benefits, see Compare AWS Support plans.

15. Choose **Complete sign up**. A confirmation page appears that indicates that your account is being activated.

16. Check your email and spam folder for an email message that confirms your account was activated. Activation usually takes a few minutes but can sometimes take up to 24 hours.

    After you receive the activation message, you have full access to all AWS services.

Result: Thus, the AWS Account created successfully.

2. Creating Access Keys and Setting up AWS

Procedure:

1. Use your AWS account's email address and password to sign in to the Getting Started with the AWS Management Console as your AWS account root user.

2. In the upper right corner of the console, choose your account name or number and then choose **Security Credentials**.

3. In the **Access keys** section, choose **Create access key**. If this option is not available, then you already have the maximum number of access keys. You must delete one of the existing access keys before you can create a new key. For more information, see IAM Object Quotas.

4. On the **Alternatives to root user access keys** page, review the security recommendations. To continue, select the check box, and then choose **Create access key**.

5. On the **Retrieve access key** page, your **Access key** ID is displayed.

6. Under **Secret access key**, choose **Show** and then copy the access key ID and secret key from your browser window and paste it somewhere secure. Alternatively, you can choose **Download .csv file** which will download a file named rootkey.csv that contains the access key ID and the secret key. Save the file somewhere safe.

7. Choose **Done**. When you no longer need the access key we recommend that you delete it, or at least consider deactivating it so that no one can misuse it.

Result: Thus, the Access Key created and setting up AWS successfully completed

3. Instance creation EC2 S3 life cycle configuration

Procedure:

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Step 1: Create an EC2 Instance

1. Login to your AWS account and go to the EC2 Dashboard. Link
2. Click on Launch Instance.
3. Give a name to your instance.
4. Select an Amazon Machine Image (AMI). For this experiment, we will use the Amazon Linux 2 AMI (HVM), SSD Volume Type.
5. Select an instance type. For this experiment, we will use the t2.micro instance type
6. Create a new key pair and download it. This will be used to connect to the instance.
7. Click on Launch Instance.
8. Success, your Instance is launched.
9. Click on View Instances to view your instance.

Step 2: Connect to the Instance

1. Open your terminal and go to the directory where you downloaded the key pair.
2. Change the permissions of the key pair file using the following command:

   chmod 400 <key-pair-name>.pem

3. Connect to the instance using the following command:

   ssh -i <key-pair-name>.pem ec2-user@<public-ip-address>

4. You are now connected to the instance.

Step 3: Create a Bucket

1. Go to the S3 Dashboard. Link
2. Click on Create Bucket.
3. Give Name of your bucket
4. Select a region. For this experiment, we will use the US East (N. Virginia) region.
5. Scroll down and Click on Create bucket.
6. Success! Your bucket is now created.

Step 4: Upload a File to the Bucket

1. Click on the bucket you just created.
2. Click on Upload.
3. Click on Add files.
4. Select a file and click on Next.

5. After selecting the file, click on Upload.

Step 5: Create a Lifecycle Policy

1. Go to the S3 Dashboard. Link
2. Click on the bucket you just created.
3. Click on Management.
4. Click on Add lifecycle rule.
5. Give a name to your lifecycle rule. For this experiment, we will use the name DevOps Ex-3.
6. Enter the prefix of the object. For this experiment, we will use the prefix Ex-3.
7. Add object tags. For this experiment, we will use the tag Ex-3.
8. Select the lifecycle rule action. For this experiment, we will use the action Transition to Standard-IA storage class after 30 days.
9. Click on Create Rules.
10. Success! Your lifecycle rule is now created.

Step 6: Stop the Instance

1. Go to the EC2 Dashboard. Link
2. Click on Instances.
3. Select the instance you just created.
4. Click on Actions.
5. Click on Instance State.
6. Click on Stop.

Result: Thus, the EC2 instance, S3 bucket is created and life cycle configuration is completed successfully