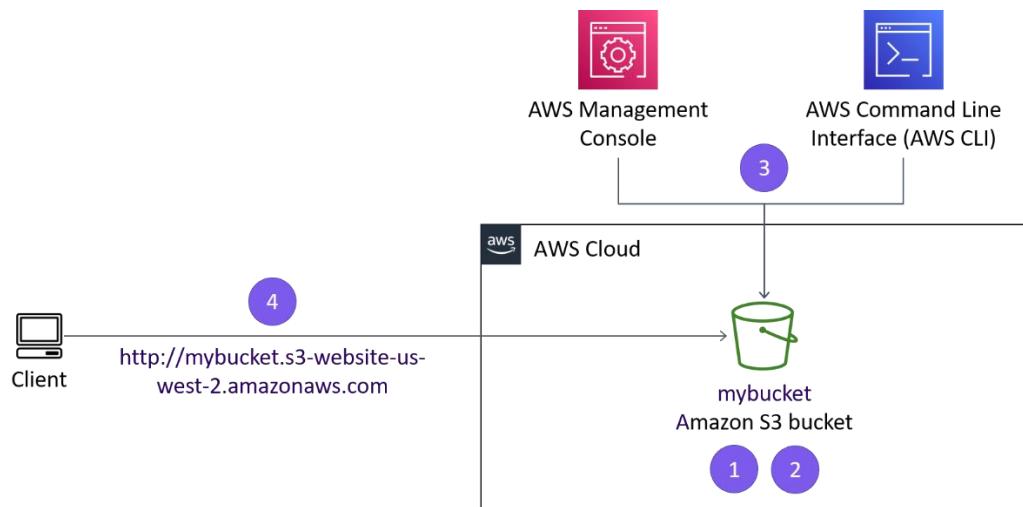


Creating a Website on S3

In this lab, you practice using AWS Command Line Interface (AWS CLI) commands from an Amazon Elastic Compute Cloud (Amazon EC2) instance to:

- Create an Amazon Simple Storage Service (Amazon S3) bucket.
- Create a new AWS Identity and Access Management (IAM) user that has full access to the Amazon S3 service.
- Upload files to Amazon S3 to host a simple website for the Café & Bakery.
- Create a batch file that can be used to update the static website when you change any of the website files locally.



Clients will be able to access the website you have deployed to Amazon S3. The website URL is similar to this example: <http://s3-website-us-west-2.amazonaws.com>. You can create and access the bucket through the AWS Management Console or the AWS CLI.

Objectives

After completing this lab, you should be able to:

- Run AWS CLI commands that use IAM and Amazon S3 services.
- Deploy a static website to an S3 bucket.
- Create a script that uses the AWS CLI to copy files in a local directory to Amazon S3.

Duration

This activity requires approximately **45 minutes** to complete.

Accessing the AWS Management Console

1. At the top of these instructions, choose **Start Lab** to launch the lab.
2. Wait until the message "Lab status: ready" appears, and then choose **X** to close the **Start Lab** panel.
3. Next to **Start Lab**, choose **AWS**, which opens the AWS Management Console in a new browser tab. The system automatically signs you in.

Tip If a new browser tab does not open, a banner or icon at the top of your browser will indicate that your browser is preventing the site from opening pop-up windows. Choose the banner or icon, and choose **Allow pop-ups**.

4. Arrange the AWS Management Console so that it appears alongside these instructions.

Important: Do not change the lab Region unless specifically instructed to do so.

Task 1: Use SSH to connect to an Amazon Linux EC2 instance

In this task, you log in to an existing EC2 instance.

Windows users

These instructions are specifically for Windows users.

5. At the top of the page, choose the **Details** dropdown menu, and then choose **Show**. A **Credentials** window opens.
6. Choose **Download PPK**, and save the **labuser.ppk** file.

Typically, your browser saves downloaded files to the **Downloads** directory.

7. Copy and paste the **PublicIP** into a text editor to use later. This IP address is the IPv4 server address that you have to connect to.
8. To exit the **Details** panel, choose the **X**.
9. Download **PuTTY** to use an SSH utility to connect to the EC2 instance. If you do not have PuTTY installed on your computer, [download it](#).
10. Open **putty.exe**.
11. Configure the PuTTY timeout to keep the PuTTY session open for a longer period of time:
 - Choose **Connection**.
 - For **Seconds between keepalives**, enter **30**
12. Configure your PuTTY session:
 - Choose **Session**.
 - For the **Host Name (or IP address)**, enter the **PublicIP** address that you copied from the previous steps.
 - In PuTTY in the **Connection** list, choose **SSH** to expand it.
 - Choose **Auth**, but don't expand it.
 - Choose **Browse**.
 - Browse to and select the **labuser.ppk** file that you downloaded.
 - To choose the file, choose **Open**.
 - Choose **Open** again.

13. In the **PuTTY Security Alert** window, choose **Accept** to trust and connect to the host.
14. When prompted with **Login as**, enter `ec2-user` and press Enter.

This step connects you to the EC2 instance.

macOS and Linux users

These instructions are specifically for Mac and Linux users.

15. At the top of the page, choose the `Details` dropdown menu, and then choose `Show`. A **Credentials** window opens.
16. Choose **Download PEM**, and save the **labsuser.pem** file.
17. Copy and paste the **PublicIP** into a text editor to use later. This IP address is the IPv4 server address that you have to connect to.
18. To exit the **Details** panel, choose the **X**.
19. Open a terminal window, and change the `cd` directory to the directory where you downloaded the labsuser.pem file. For example, run the following command if you saved the file to your **Downloads** directory:

```
cd ~/Downloads
```

20. To change the permissions on the key to read only, run the following command:

```
chmod 400 labsuser.pem
```

21. In the following command, replace `<ip-address>` with the public IP address that you copied from the previous steps, and run the adjusted command:

```
ssh -i labsuser.pem ec2-user@<ip-address>
```

22. When prompted, enter `yes` to connect to this remote SSH server. Because you are using a key pair for authentication, you are not prompted for a password.

Task 2: Configure the AWS CLI

Unlike some other Linux distributions that are available through Amazon Web Services (AWS), Amazon Linux instances already have the AWS CLI pre-installed on them.

23. In the SSH session terminal window, run the configure command to update the AWS CLI software with credentials.

```
aws configure
```

24. At the prompt, configure the following:

- **AWS Access Key ID:** Choose the dropdown list, and choose . Copy and paste the **AccessKey** value into the terminal window.
- **AWS Secret Access Key:** Copy and paste the **SecretKey** value into the terminal window.
- **Default region name:** Enter
- **Default output format:** Enter

Task 3: Create an S3 bucket using the AWS CLI

The s3api command creates a new S3 bucket with the AWS credentials in this lab. By default, the S3 bucket is created in the us-east-1 Region.

****Tip:**** In this lab, you might use the s3api command or the s3 command. s3 commands are built on top of the operations that are found in the s3api commands.

When you create a new S3 bucket, the bucket must have a unique name, such as the combination of your first initial, last name, and three random numbers. For example, if a user's name is Terry Whitlock, a bucket name could be `twhitlock256`

25. To create a bucket in Amazon S3, you use the aws s3api create-bucket command.

When you use this command to create an S3 bucket, you also include the following:

- Specify `--region us-west-2`
- Add `--create-bucket-configuration LocationConstraint=us-west-2` to the end of the command.

The following is an example of the command to create a new S3 bucket. You can use `twhitlock256` as your bucket name, or you can replace `<twhitlock256>` with a bucket name that you prefer to use for this lab.

```
aws s3api create-bucket --bucket <twhitlock256> --region us-west-2 --create-bucket-configuration  
LocationConstraint=us-west-2
```

If the command is successful, you will get a JSON-formatted response with a **Location** name-value pair, where the value reflects the bucket name. The following is an example:

```
{  
    "Location": "http://twhitlock256.s3.amazonaws.com/  
}
```

Task 4: Create a new IAM user that has full access to Amazon S3

The AWS CLI command: `aws iam create-user` creates a new IAM user for your AWS account. The option `--user-name` is used to create the name of the user and must be unique within the account.

26. Using the AWS CLI, create a new IAM user with the command `aws iam create-user` and username `awsS3user`:

```
aws iam create-user --user-name awsS3user
```

27. Create a login profile for the new user by using the following command:

```
aws iam create-login-profile --user-name awsS3user --password Training123!
```

28. Copy the AWS account number:

- In the AWS Management Console, choose the account **voclabs/user...** drop down menu located at the top right of the screen.
- Copy the 12 digit **Account ID** number.
- In the current drop down menu, choose **Sign Out**.

29. Log in to the AWS Management Console as the new **awsS3user** user:

- In the browser tab where you just signed out of the AWS Management Console, choose **Log back in** or **Sign in to the Console**.
- In the sign-in screen, choose the radio button **IAM user**.
- In the text field, paste or enter the account ID with no dashes.
- Choose **Next**.
- A new login screen with **Sign in as IAM user** field will show. The account ID will be filled in from the previous screen.
- For **IAM user name**, enter `awsS3user`
- For **Password**, enter `Training123!`
- Choose **Sign In**

30. On the AWS Management Console, in the **Search** box, enter `S3` and choose **S3**. This option takes you to the Amazon S3 console page.

Note: The bucket that you created might not be visible. Refresh the Amazon S3 console page to see if it appears. The **awsS3user** user does not have Amazon S3

access to the bucket that you created, so you might see an error for **Access** to this bucket.

31. In the terminal window, to find the AWS managed policy that grants full access to Amazon S3, run the following command:

```
aws iam list-policies --query "Policies[?contains(PolicyName,'S3')]"
```

The result displays policies that have a **PolicyName** attribute containing the term S3. Locate the policy that grants full access to Amazon S3. You use this policy in the next step.

32. To grant the **awsS3user** user full access to the S3 bucket, replace *<policyYouFound>* in following command with the appropriate **PolicyName** from the results, and run the adjusted command:

```
aws iam attach-user-policy --policy-arn arn:aws:iam::aws:policy/<policyYouFound> --user-name awsS3user
```

33. Return to the AWS Management Console, and refresh the browser tab.

If you implemented the correct policy, the **Access** portion of the bucket now has **Objects can be public**.

Task 5: Extract the files that you need for this lab

A file containing the static-website contents for the Amazon S3 bucket will need to be extracted in the following step.

34. Back in the SSH terminal, extract the files that you need for this lab by running the following commands:

```
cd ~/sysops-activity-files  
tar xvzf static-website-v2.tar.gz  
cd static-website
```

35. To confirm that the files were extracted correctly, run the ls command.

You should see a file named index.html and directories named css and images.

Task 6: Upload files to Amazon S3 by using the AWS CLI

Once the files are extracted, you upload the contents of the file to Amazon S3. These files include what you explored when you ran the ls command.

36. So that the bucket can function as a website, replace <my-bucket> in the following command with your bucket name, and run the adjusted command.

```
aws s3 website s3://<my-bucket>/ --index-document index.html
```

This process helps ensure that the index.html file will be known as the index document.

37. To upload the files to the bucket, replace <my-bucket> in the following command with your bucket name, and run the adjusted command:

```
aws s3 cp /home/ec2-user/sysops-activity-files/static-website/ s3://<my-bucket>/ --recursive --acl public-read
```

Notice that the upload command includes an access control list (ACL) parameter. This parameter specifies that the uploaded files have public read access. It also includes the recursive parameter, which indicates that all files in the current directory on your machine should be uploaded.

38. To verify that the files were uploaded, replace <my-bucket> in the following command with your bucket name, and run the adjusted command:

```
aws s3 ls <my-bucket>
```

39. On the **AWS Management Console**, on the Amazon S3 console, choose your bucket name.

40. Choose the **Properties** tab. At the bottom of the this tab, note that **Static website hosting** is **Enabled**. Running the aws s3 website AWS CLI command turns on the static website hosting for an Amazon S3 bucket. This option is usually turned off by default.

41. To open the URL on a new page, choose the **Bucket website endpoint** URL that displays.

Task 7: Create a batch file to make updating the website repeatable

To create a repeatable deployment, you create a batch file by using the VI editor.

42. In the terminal window, to pull up the history of recent commands, run the following command:

```
history
```

43. Locate the line where you ran the aws s3 cp command. You will put this line in your new batch file.

44. To change directories and create an empty file, run the following command in the SSH terminal session:

```
cd ~  
touch update-website.sh
```

45. To open the empty file in the VI editor, run the following command.

```
vi update-website.sh
```

46. To enter edit mode in the VI editor, press **i**

47. Next, you add the standard first line of a bash file and then add the s3 cp line from your history. To do so, replace *<my-bucket>* in the following command with your bucket name, and copy and paste the adjusted command into your file:

```
#!/bin/bash  
aws s3 cp /home/ec2-user/sysops-activity-files/static-website/ s3://<my-bucket>/ --recursive --acl public-read
```

48. To write the changes and quit the file, press Esc, enter **:wq** and then press Enter.

49. To make the file an executable batch file, run the following command:

```
chmod +x update-website.sh
```

50. To open the local copy of the index.html file in a text editor, run the following command:

```
vi sysops-activity-files/static-website/index.html
```

51. To enter edit mode in the VI editor, press `i` and modify the file as follows:
- Locate the first line that has the HTML code `bgcolor="aquamarine"` and change this code to `bgcolor="gainsboro"`
 - Locate the line that has the HTML code `bgcolor="orange"` and change this code to `bgcolor="cornsilk"`
 - Locate the second line that has the HTML code `bgcolor="aquamarine"` and change this code to `bgcolor="gainsboro"`
 - To write the changes and quit the file, press Esc, enter `:wq` and then press Enter.

52. To update the website, run your batch file.

```
/update-website.sh
```

Note: The command line output should show that the files were copied to Amazon S3.

53. To see the changes to the website, return to the browser and refresh the Café and Bakery page.

Congratulations, you just made your first revision to the website!

You now have a tool (the script that you created) that you can use to push changes from your website source files to Amazon S3.

Optional challenge

Did you notice that your batch file uploads every file to Amazon S3 every time you run it even when most of the files have no changes to them?

- Take a look at the following document: [AWS CLI reference documentation for sync](#).
- Make a small noticeable change to the index.html file. For example, modify one of the colors, and save the change.
- Run the updated batch file.
- To help make your script more efficient, you replace the aws s3 cp command that you've been using with the aws s3 sync command from this document. The following is an example of the aws s3 sync command that you run in the SSH terminal window. In this command, replace <my-bucket> with your bucket name.

```
aws s3 sync /home/ec2-user/sysops-activity-files/static-website/ <s3://<my-bucket>/ --acl public-read
```

- Refresh the Café and Bakery site to see your changes.
- How was the aws s3 sync command more efficient than the aws s3 cp command? Did the aws s3 sync command update just the index.html file or upload all the files like the aws s3 sync command?

Conclusion

Congratulations! You now have successfully done the following:

- Ran AWS CLI commands that use IAM and Amazon S3 services
- Deployed a static website to an S3 bucket
- Created a script that uses the AWS CLI to copy files in a local directory to Amazon S3

Additional resources

- [S3 API](#)
- [Installing or Updating the Latest Version of the AWS CLI](#)
- [Troubleshooting AWS CLI Errors](#)

Task 2: Configure the AWS CLI

```
ec2-user@ip-10-200-0-27: ~ + - x Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

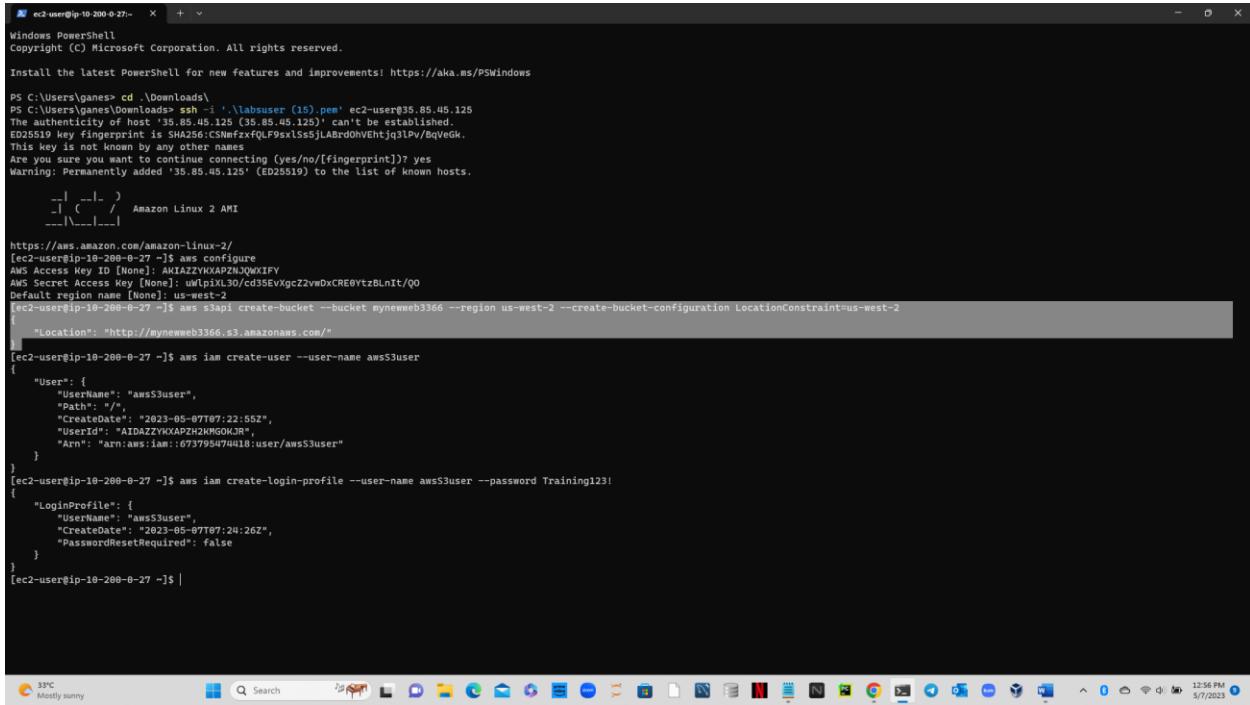
Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\panes> cd ..\Downloads\
PS C:\Users\panes\Downloads> ssh -i 'lambdauser (15).pem' ec2-user@35.85.85.125
The authenticity of host '35.85.85.125 (35.85.85.125)' can't be established.
ED25519 key fingerprint is SHA256:CSNmFxxf0LFB9xsLs5jLBzR0hVHtjq3lPw/BqvVeGK.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[Fingerprint])? yes
Warning: Permanently added '35.85.85.125' (ED25519) to the list of known hosts.

      _|_ --|-_
      _|_ (   _/   Amazon Linux 2 AMI
      _|_ \_\_\_\_/_|_

https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-10-200-0-27 ~]$ aws configure
AWS Access Key ID [None]: AIKAZZYXKAQZP2J0WXKIFY
AWS Secret Access Key [None]: uwlrx130/cd9SEv/gcZ2vw0xCREBytz8Lnlt/QO
Default region name [None]: us-west-2
[ec2-user@ip-10-200-0-27 ~]$ aws s3api create-bucket mynewweb3366 --region us-west-2 --create-bucket-configuration LocationConstraint=us-west-2
{
    "Location": "http://mynewweb3366.s3.amazonaws.com/"
}
[ec2-user@ip-10-200-0-27 ~]$ aws iam create-user --user-name aws53user
{
    "User": {
        "UserName": "aws53user",
        "Path": "/",
        "CreateDate": "2023-05-07T07:22:55Z",
        "UserId": "AIDAZZYXKAQZP2H2NGOKJR",
        "Arn": "arn:aws:iam::67379547418:user/aws53user"
    }
}
[ec2-user@ip-10-200-0-27 ~]$ aws iam create-login-profile --user-name aws53user --password Training123!
{
    "LoginProfile": {
        "UserName": "aws53user",
        "CreateDate": "2023-05-07T07:24:26Z",
        "PasswordResetRequired": false
    }
}
[ec2-user@ip-10-200-0-27 ~]$ |
```

Task 3: Create an S3 bucket using the AWS CLI



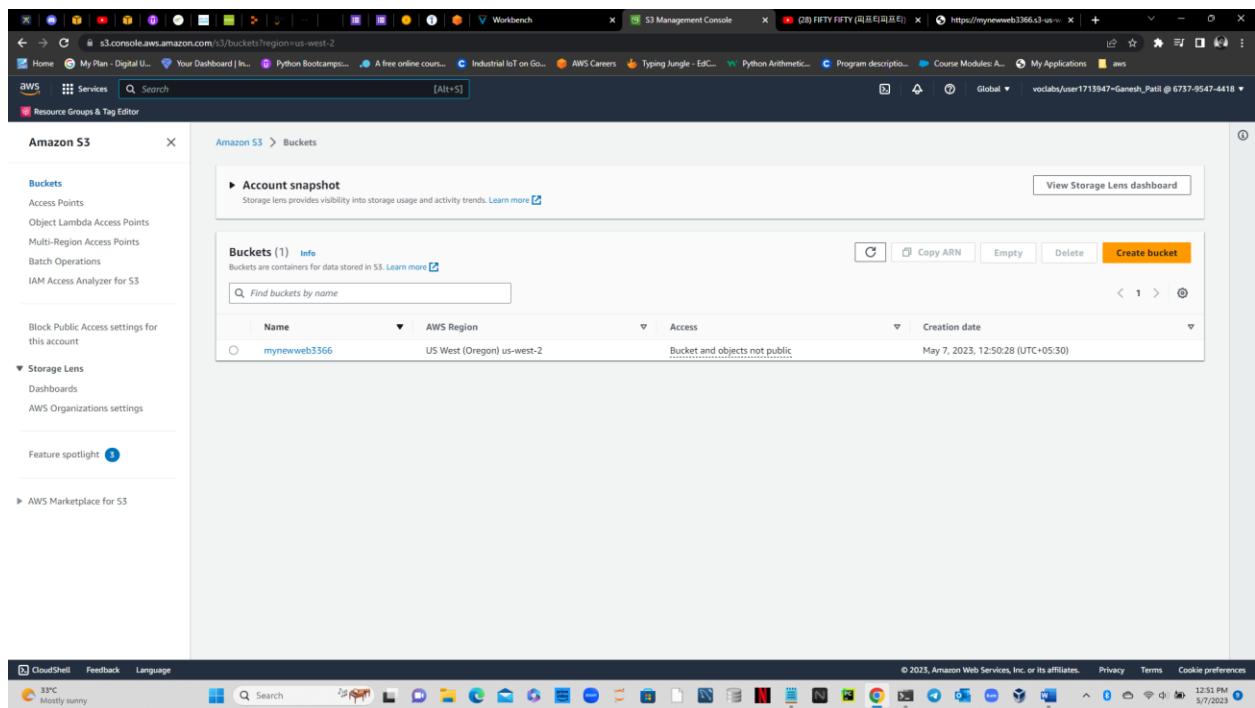
```
ec2-user@ip-10-200-0-27: ~ + - v
Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\ganes> cd .\Downloads
PS C:\Users\ganes\Downloads> ssh -i '.\absuser (15).pem' ec2-user@35.85.45.125
The authenticity of host '35.85.45.125 (35.85.45.125)' can't be established.
ED25519 key fingerprint is SHA256:CSNmrxfxfQLF9sxLs5jLA8rdOhVEnjq3lPw/BqVeGk.
This key is known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '35.85.45.125' (ED25519) to the list of known hosts.

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...| ( ...| / Amazon Linux 2 AMI
...| \...|_ ...

https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-10-200-0-27 ~]$ aws configure
AWS Access Key ID [None]: AIAZSYXAPZH2NGOKR
AWS Secret Access Key [None]: uklpixL30/cd56EVYgcZ2vmDxCRE0YtzBLnIt/Q0
Default region name [None]: us-west-2
[ec2-user@ip-10-200-0-27 ~]$ aws s3api create-bucket --bucket myneweb3366 --region us-west-2 --create-bucket-configuration LocationConstraint=us-west-2
{
    "Location": "http://myneweb3366.s3.amazonaws.com/"
}
[ec2-user@ip-10-200-0-27 ~]$ aws iam create-user --user-name aws53user
{
    "User": {
        "UserName": "aws53user",
        "Path": "/",
        "CreateDate": "2023-05-07T07:22:55Z",
        "UserId": "AIAZSYXAPZH2NGOKR",
        "Arn": "arn:aws:iam::67379547418:user/aws53user"
    }
}
[ec2-user@ip-10-200-0-27 ~]$ aws iam create-login-profile --user-name aws53user --password Training123!
{
    "LoginProfile": {
        "UserName": "aws53user",
        "CreateDate": "2023-05-07T07:24:26Z",
        "PasswordResetRequired": false
    }
}
[ec2-user@ip-10-200-0-27 ~]$ |
```



Task 4: Create a new IAM user that has full access to Amazon S3

```
ec2-user@ip-10-200-0-27: ~ + v
Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\ganes> cd ..\Downloads
PS C:\Users\ganes\Downloads> ssh -i "lambdauser.pem" ec2-user@35.85.45.125
The authenticity of host '35.85.45.125 (35.85.45.125)' can't be established.
ED25519 key fingerprint is SHA256:CSNwfQfL9Pxsls6jLABv0hVENTq3lPw/BzVegk.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '35.85.45.125' (ED25519) to the list of known hosts.

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--| \_ |_ |

https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-10-200-0-27 ~]$ aws configure
AWS Access Key ID [None]: AKIAZ2VXAPZPZJWXXIFY
AWS Secret Access Key [None]: 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
Default region name [None]: us-west-2
[ec2-user@ip-10-200-0-27 ~]$ aws s3api create-bucket --bucket mynewweb3366 --region us-west-2 --create-bucket-configuration LocationConstraint=us-west-2
{
  "Location": "http://mynewweb3366.s3.amazonaws.com/"
}
[ec2-user@ip-10-200-0-27 ~]$ aws iam create-user --user-name awsS3user
{
  "User": {
    "UserName": "awsS3user",
    "Path": "/",
    "CreateDate": "2023-05-07T07:23:57Z",
    "UserId": "AIDAZ2VXAPZPZMNGOKDR",
    "ARN": "arn:aws:iam::6737950470410:user/awsS3user"
  }
}
[ec2-user@ip-10-200-0-27 ~]$ aws iam create-login-profile --user-name awsS3user --password Training123!
{
  "LoginProfile": {
    "UserName": "awsS3user",
    "CreateDate": "2023-05-07T07:24:26Z",
    "PasswordResetRequired": false
  }
}
[ec2-user@ip-10-200-0-27 ~]$ |
```

The screenshot shows the AWS IAM Management Console. On the left, there's a navigation sidebar with options like 'Identity and Access Management (IAM)', 'Access management', 'Access reports', and 'Related consoles'. The main area is titled 'Users' and shows a table with two entries:

User name	Groups	Last activity	MFA	Password age	Active key age
awsS3user	None	None	None	None	-
awsstudent	QLReadOnly	None	None	None	26 minutes ago

At the bottom of the page, there are links for 'CloudShell', 'Feedback', 'Language', and the AWS logo. The status bar at the bottom indicates it's 12:53 PM on 5/7/2023.

```

[ec2-user@ip-10-200-0-27-] x + v
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\games> cd \Downloads
PS C:\Users\games\Downloads> ls | ? { $_.Name -eq 'aws' } | > .\aws
The authenticity of host '35.85.45.125 (35.85.45.125)' can't be established.
ED25519 key fingerprint is SHA256:CSNwfixfQFLPxxLs5jLA9roDhVENTq3NLPv/BqVgdk.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '35.85.45.125' (ED25519) to the list of known hosts.

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https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-10-200-0-27 ~]$ aws configure
AWS Access Key ID [None]: AKIAZZYXAPZPZJWXXIFY
AWS Secret Access Key [None]: uwlPlx1x30/cd35EVxgcZ2vw0xCRE0YtzBLnIt/Q0
Default region name [None]: us-west-2
[ec2-user@ip-10-200-0-27 ~]$ aws s3api create-bucket --bucket mynewweb3366 --region us-west-2 --create-bucket-configuration LocationConstraint=us-west-2
{
  "Location": "http://mynewweb3366.s3.amazonaws.com"
}
[ec2-user@ip-10-200-0-27 ~]$ aws iam create-user --user-name awsS3user
{
  "User": {
    "UserName": "awsS3user",
    "Path": "/",
    "CreateDate": "2023-05-07T07:22:55Z",
    "UserId": "AIDAZZYXAPZPZKMGOKDR",
    "Arn": "arn:aws:iam::67379547418:user/awsS3user"
  }
}
[ec2-user@ip-10-200-0-27 ~]$ aws iam create-login-profile --user-name awsS3user --password Training123!
{
  "LoginProfile": {
    "UserName": "awsS3user",
    "CreateDate": "2023-05-07T07:24:26Z",
    "PasswordResetRequired": false
  }
}
[ec2-user@ip-10-200-0-27 ~]$ 

```

The screenshot shows a Windows desktop environment. A browser window is open to the AWS IAM sign-in page at https://signin.aws.amazon.com/oauth/redirect_uri=https%3A%2F%2Fconsole.aws.amazon.com%2Fconsole%2Fhome%3FhashArgs%3D%2523%26authcode%3Dtrue%26nc%23Dheader-signin%26state%3DhashArgsFromTB_us-east-2_. The sign-in form on the left has fields for 'Account ID (12 digits) or account alias' (673795474418), 'IAM user name' (awsS3user), and 'Password'. Below the password field is a checkbox for 'Remember this account'. A blue 'Sign in' button is at the bottom. To the right, there is a promotional banner for 'AWS re:Inforce' with the text 'Join us for two days of security learning' and a 'Register now' button.



```
[ec2-user@ip-10-200-0-27 ~]$ aws iam list-policies --query "Policies[?contains(PolicyName,'S3')]"  
[  
  {  
    "PolicyName": "AmazonS3FullAccess",  
    "PermissionsBoundaryUsageCount": 0,  
    "CreateDate": "2015-02-06T18:40:58Z",  
    "AttachmentCount": 0,  
    "IsAttachable": true,  
    "PolicyId": "ANPAIFIR6V6BVTRAHWINE",  
    "DefaultVersionId": "v2",  
    "Path": "/",  
    "Arn": "arn:aws:iam::aws:policy/AmazonS3FullAccess",  
    "UpdateDate": "2021-09-27T20:16:37Z"  
  },  
  {  
    "PolicyName": "AmazonS3ReadOnlyAccess",  
    "PermissionsBoundaryUsageCount": 0,  
    "CreateDate": "2015-02-06T18:40:59Z",  
    "AttachmentCount": 0,  
    "IsAttachable": true,  
    "PolicyId": "ANPAIZTJ4DXE7G6AGAE6M",  
    "DefaultVersionId": "v2",  
    "Path": "/",  
    "Arn": "arn:aws:iam::aws:policy/AmazonS3ReadOnlyAccess",  
    "UpdateDate": "2021-09-27T20:24:58Z"  
  },  
  {  
    "PolicyName": "AmazonDMSRedshiftS3Role",  
    "PermissionsBoundaryUsageCount": 0,  
    "CreateDate": "2016-04-20T17:05:56Z",  
    "AttachmentCount": 0,  
    "IsAttachable": true,  
    "PolicyId": "ANPAI3CCUQ4U5WNC5F6B6",  
    "DefaultVersionId": "v3",  
    "Path": "/service-role/",  
    "Arn": "arn:aws:iam::aws:policy/service-role/AmazonDMSRedshiftS3Role",  
    "UpdateDate": "2019-07-08T18:19:14Z"  
  },  
  {  
    "PolicyName": "QuickSightAccessForS3StorageManagementAnalyticsReadOnly",  
    "PermissionsBoundaryUsageCount": 0,  
    "CreateDate": "2017-06-12T18:18:38Z",  
    "AttachmentCount": 0,  
    "IsAttachable": true,  
    "PolicyId": "ANPAIFWG3L3WDMR4I7ZJW",  
    "DefaultVersionId": "v4",  
    "Path": "/service-role/",
```

```
        "Arn": "arn:aws:iam::aws:policy/service-role/QuickSightAccessForS3StorageManagementAnalyticsReadOnly",
        "UpdateDate": "2019-10-08T23:53:11Z"
    },
    {
        "PolicyName": "AmazonS3OutpostsFullAccess",
        "PermissionsBoundaryUsageCount": 0,
        "CreateDate": "2020-10-02T17:26:30Z",
        "AttachmentCount": 0,
        "IsAttachable": true,
        "PolicyId": "ANPAZKAPJZG4BKMLUXKOR",
        "DefaultVersionId": "v1",
        "Path": "/",
        "Arn": "arn:aws:iam::aws:policy/AmazonS3OutpostsFullAccess",
        "UpdateDate": "2020-10-02T17:26:30Z"
    },
    {
        "PolicyName": "AmazonS3OutpostsReadOnlyAccess",
        "PermissionsBoundaryUsageCount": 0,
        "CreateDate": "2020-10-02T18:55:58Z",
        "AttachmentCount": 0,
        "IsAttachable": true,
        "PolicyId": "ANPAZKAPJZG4PJ2AX4CUB",
        "DefaultVersionId": "v1",
        "Path": "/",
        "Arn": "arn:aws:iam::aws:policy/AmazonS3OutpostsReadOnlyAccess",
        "UpdateDate": "2020-10-02T18:55:58Z"
    },
    {
        "PolicyName": "S3StorageLensServiceRolePolicy",
        "PermissionsBoundaryUsageCount": 0,
        "CreateDate": "2020-11-18T18:15:40Z",
        "AttachmentCount": 0,
        "IsAttachable": true,
        "PolicyId": "ANPAZKAPJZG4IHOVJESMS",
        "DefaultVersionId": "v1",
        "Path": "/aws-service-role/",
        "Arn": "arn:aws:iam::aws:policy/aws-service-role/S3StorageLensServiceRolePolicy",
        "UpdateDate": "2020-11-18T18:15:40Z"
    },
    {
        "PolicyName": "IVSRecordToS3",
        "PermissionsBoundaryUsageCount": 0,
        "CreateDate": "2020-12-05T00:10:43Z",
        "AttachmentCount": 0,
        "IsAttachable": true,
        "PolicyId": "ANPAZKAPJZG4M65NGVKOJ",
        "DefaultVersionId": "v1",
        "Path": "/aws-service-role/"
    }
]
```

```

    "Path": "/aws-service-role/",
    "Arn": "arn:aws:iam::aws:policy/aws-service-role/IVSRecordToS3",
    "UpdateDate": "2020-12-05T00:10:43Z"
},
{
    "PolicyName": "AmazonS3ObjectLambdaExecutionRolePolicy",
    "PermissionsBoundaryUsageCount": 0,
    "CreateDate": "2021-08-18T10:07:41Z",
    "AttachmentCount": 0,
    "IsAttachable": true,
    "PolicyId": "ANPAZKAPJZG4PG47VBSXA",
    "DefaultVersionId": "v1",
    "Path": "/service-role/",
    "Arn": "arn:aws:iam::aws:policy/service-role/AmazonS3ObjectLambdaExecutionRolePolicy",
    "UpdateDate": "2021-08-18T10:07:41Z"
},
{
    "PolicyName": "AWSBackupServiceRolePolicyForS3Restore",
    "PermissionsBoundaryUsageCount": 0,
    "CreateDate": "2022-02-18T17:39:37Z",
    "AttachmentCount": 0,
    "IsAttachable": true,
    "PolicyId": "ANPAZKAPJZG4KPHGRYXGS",
    "DefaultVersionId": "v2",
    "Path": "/",
    "Arn": "arn:aws:iam::aws:policy/AWSBackupServiceRolePolicyForS3Restore",
    "UpdateDate": "2023-02-07T00:06:00Z"
},
{
    "PolicyName": "AWSBackupServiceRolePolicyForS3Backup",
    "PermissionsBoundaryUsageCount": 0,
    "CreateDate": "2022-02-18T17:40:24Z",
    "AttachmentCount": 0,
    "IsAttachable": true,
    "PolicyId": "ANPAZKAPJZG4CGZAHUZ2D",
    "DefaultVersionId": "v3",
    "Path": "/",
    "Arn": "arn:aws:iam::aws:policy/AWSBackupServiceRolePolicyForS3Backup",
    "UpdateDate": "2022-09-01T16:52:33Z"
}
]

```

[ec2-user@ip-10-200-0-27 ~]\$ aws iam attach-user-policy --policy-arn
 arn:aws:iam::aws:policy/AmazonS3FullAccess --user-name awsS3user

The screenshot shows the AWS S3 Management Console interface. On the left, there's a sidebar with navigation links like 'Buckets', 'Access Points', 'Object Lambda Access Points', etc. The main area displays an 'Account snapshot' with a link to 'View Storage Lens dashboard'. Below it is a table titled 'Buckets (1) Info' showing one entry:

Name	AWS Region	Access	Creation date
mynewweb3366	US West (Oregon) us-west-2	Bucket and objects not public	May 7, 2023, 12:50:28 (UTC+05:30)

At the bottom of the browser window, you can see the Windows taskbar with various pinned icons and the system tray showing the date and time.

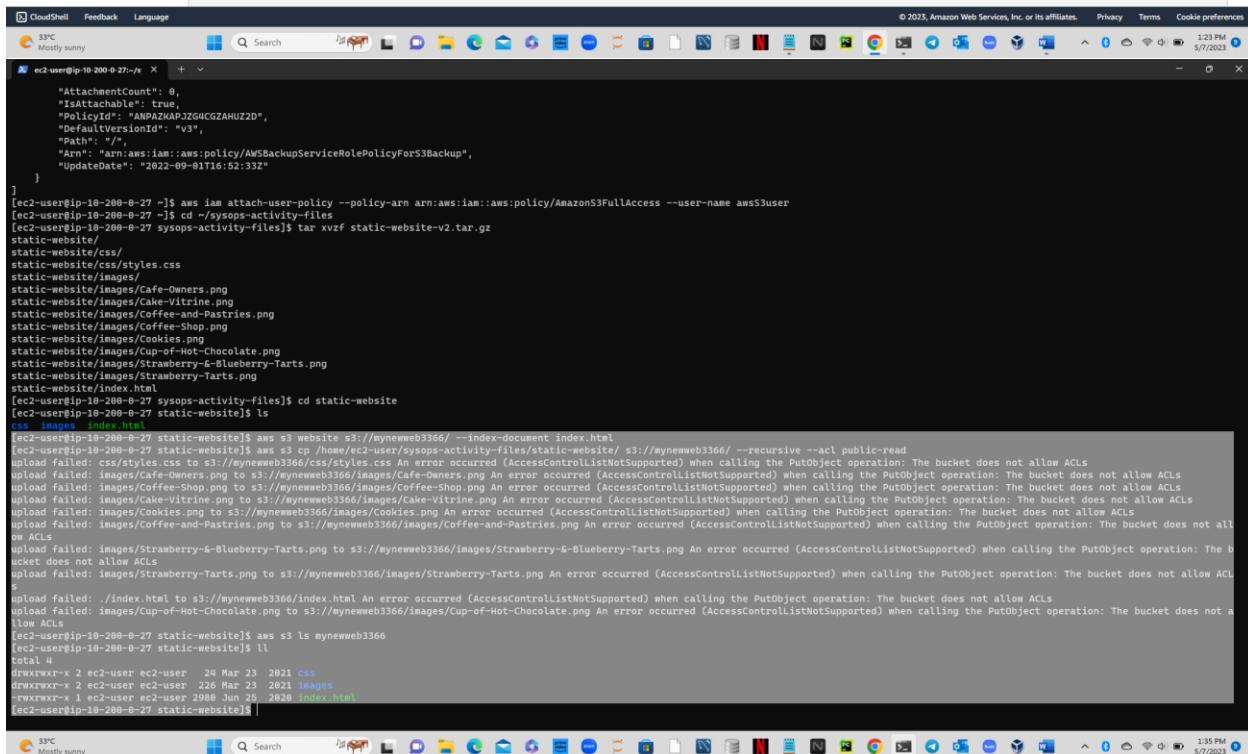
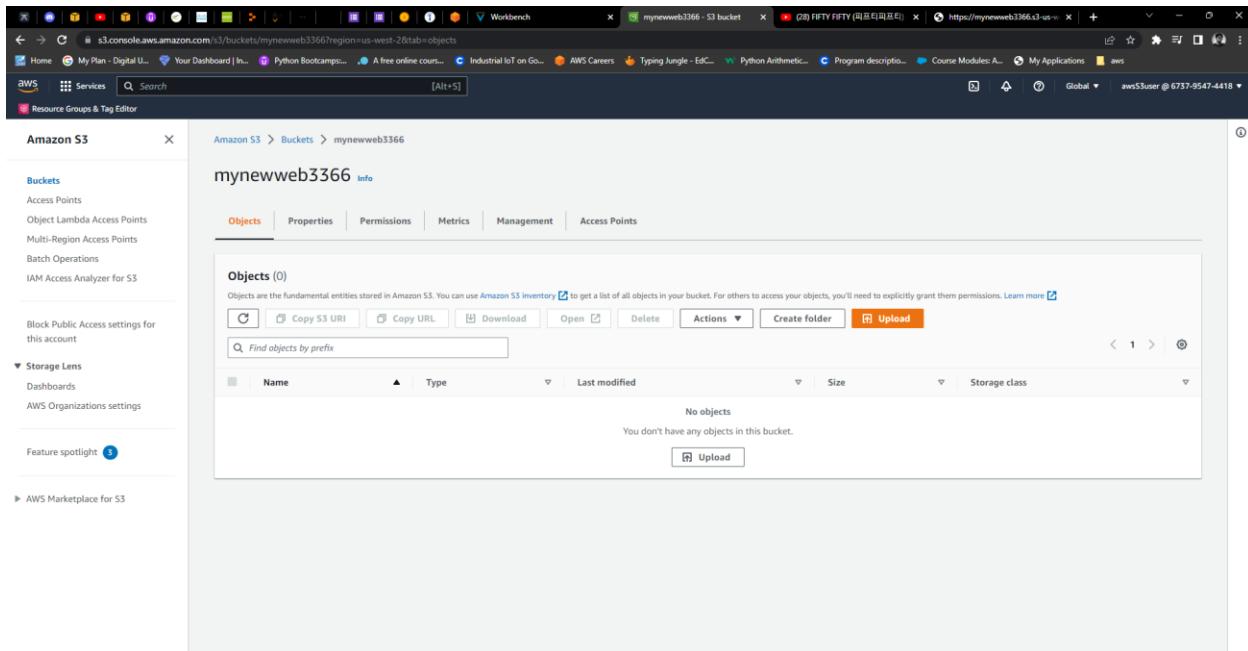
Task 5: Extract the files that you need for this lab

```
[ec2-user@ip-10-200-0-27 ~]$ cd ~/sysops-activity-files  
[ec2-user@ip-10-200-0-27 sysops-activity-files]$ tar xvzf static-website-v2.tar.gz  
static-website/  
static-website/css/  
static-website/css/styles.css  
static-website/images/  
static-website/images/Cafe-Owners.png  
static-website/images/Cake-Vitrine.png  
static-website/images/Coffee-and-Pastries.png  
static-website/images/Coffee-Shop.png  
static-website/images/Cookies.png  
static-website/images/Cup-of-Hot-Chocolate.png  
static-website/images/Strawberry-&-Blueberry-Tarts.png  
static-website/images/Strawberry-Tarts.png  
static-website/index.html  
[ec2-user@ip-10-200-0-27 sysops-activity-files]$ cd static-website  
[ec2-user@ip-10-200-0-27 static-website]$ ls  
css images index.html
```

A screenshot of a Windows terminal window titled "cmd" showing the command-line session. The session starts with the user navigating to their home directory, extracting a tar file named "static-website-v2.tar.gz" into the current directory, and then listing the contents of the extracted folder. The terminal window has a dark theme and shows standard Windows icons at the bottom.

```
[ec2-user@ip-10-200-0-27 ~]$ cd ~/sysops-activity-files  
[ec2-user@ip-10-200-0-27 sysops-activity-files]$ tar xvzf static-website-v2.tar.gz  
static-website/  
static-website/css/  
static-website/css/styles.css  
static-website/images/  
static-website/images/Cafe-Owners.png  
static-website/images/Cake-Vitrine.png  
static-website/images/Coffee-and-Pastries.png  
static-website/images/Coffee-Shop.png  
static-website/images/Cookies.png  
static-website/images/Cup-of-Hot-Chocolate.png  
static-website/images/Strawberry-&-Blueberry-Tarts.png  
static-website/images/Strawberry-Tarts.png  
static-website/index.html  
[ec2-user@ip-10-200-0-27 ~]$ aws iam attach-user-policy --policy-arn arn:aws:iam::aws:policy/AmazonS3FullAccess --user-name awsS3user  
[ec2-user@ip-10-200-0-27 ~]$ cd ~/sysops-activity-files  
[ec2-user@ip-10-200-0-27 sysops-activity-files]$ tar xvzf static-website-v2.tar.gz  
static-website/  
static-website/css/  
static-website/css/styles.css  
static-website/images/  
static-website/images/Cafe-Owners.png  
static-website/images/Cake-Vitrine.png  
static-website/images/Coffee-and-Pastries.png  
static-website/images/Coffee-Shop.png  
static-website/images/Cookies.png  
static-website/images/Cup-of-Hot-Chocolate.png  
static-website/images/Strawberry-&-Blueberry-Tarts.png  
static-website/images/Strawberry-Tarts.png  
static-website/index.html  
[ec2-user@ip-10-200-0-27 sysops-activity-files]$ cd static-website  
[ec2-user@ip-10-200-0-27 static-website]$ ls  
css images index.html  
[ec2-user@ip-10-200-0-27 static-website]$ |
```

Task 6: Upload files to Amazon S3 by using the AWS CLI



```
[ec2-user@ip-10-200-0-27 static-website]$ aws s3 website s3://mynewweb3366/ --index-document  
index.html  
[ec2-user@ip-10-200-0-27 static-website]$ aws s3 cp /home/ec2-user/sysops-activity-files/static-  
website/ s3://mynewweb3366/ --recursive --acl public-read  
upload failed: css/styles.css to s3://mynewweb3366/css/styles.css An error occurred  
(AccessControlListNotSupported) when calling the PutObject operation: The bucket does not allow ACLs  
upload failed: images/Cafe-Owners.png to s3://mynewweb3366/images/Cafe-Owners.png An error  
occurred (AccessControlListNotSupported) when calling the PutObject operation: The bucket does not  
allow ACLs  
upload failed: images/Coffee-Shop.png to s3://mynewweb3366/images/Coffee-Shop.png An error  
occurred (AccessControlListNotSupported) when calling the PutObject operation: The bucket does not  
allow ACLs  
upload failed: images/Cake-Vitrine.png to s3://mynewweb3366/images/Cake-Vitrine.png An error  
occurred (AccessControlListNotSupported) when calling the PutObject operation: The bucket does not  
allow ACLs  
upload failed: images/Cookies.png to s3://mynewweb3366/images/Cookies.png An error occurred  
(AccessControlListNotSupported) when calling the PutObject operation: The bucket does not allow ACLs  
upload failed: images/Coffee-and-Pastries.png to s3://mynewweb3366/images/Coffee-and-Pastries.png  
An error occurred (AccessControlListNotSupported) when calling the PutObject operation: The bucket  
does not allow ACLs  
upload failed: images/Strawberry-&-Blueberry-Tarts.png to s3://mynewweb3366/images/Strawberry-&-  
Blueberry-Tarts.png An error occurred (AccessControlListNotSupported) when calling the PutObject  
operation: The bucket does not allow ACLs  
upload failed: images/Strawberry-Tarts.png to s3://mynewweb3366/Images/Strawberry-Tarts.png An  
error occurred (AccessControlListNotSupported) when calling the PutObject operation: The bucket does  
not allow ACLs  
upload failed: ./index.html to s3://mynewweb3366/index.html An error occurred  
(AccessControlListNotSupported) when calling the PutObject operation: The bucket does not allow ACLs  
upload failed: images/Cup-of-Hot-Chocolate.png to s3://mynewweb3366/images/Cup-of-Hot-  
Chocolate.png An error occurred (AccessControlListNotSupported) when calling the PutObject  
operation: The bucket does not allow ACLs  
[ec2-user@ip-10-200-0-27 static-website]$ aws s3 ls mynewweb3366  
[ec2-user@ip-10-200-0-27 static-website]$ ll  
total 4  
drwxrwxr-x 2 ec2-user ec2-user 24 Mar 23 2021 css  
drwxrwxr-x 2 ec2-user ec2-user 226 Mar 23 2021 images  
-rwxrwxr-x 1 ec2-user ec2-user 2980 Jun 25 2020 index.html  
[ec2-user@ip-10-200-0-27 static-website]$
```

The screenshot shows the 'Edit Block public access (bucket settings)' page for the 'mynewweb3366' bucket. The 'Block public access (bucket settings)' section is open, showing the following text:
Public access is granted to buckets and objects through access control lists (ACLs), bucket policies, access point policies, or all. In order to ensure that public access to all your S3 buckets and objects is blocked, turn on Block all public access. These settings apply only to this bucket and its access points. AWS recommends that you turn on Block all public access, but before applying any of these settings, ensure that your applications will work correctly without public access. If you require some level of public access to your buckets or objects within, you can customize the individual settings below to suit your specific storage use cases. Learn more [\[Link\]](#)

Under the 'Block all public access' heading, there is a checkbox labeled 'Block all public access'. A note states: 'Turning this setting on is the same as turning on all four settings below. Each of the following settings are independent of one another.' Below this are four options, each with a checkbox:

- Block public access to buckets and objects granted through new access control lists (ACLs)
S3 will block public access permissions applied to newly added buckets or objects, and prevent the creation of new public access ACLs for existing buckets and objects. This setting doesn't change any existing permissions that allow public access to S3 resources using ACLs.
- Block public access to buckets and objects granted through any access control lists (ACLs)
S3 will ignore all ACLs that grant public access to buckets and objects.
- Block public access to buckets and objects granted through new public bucket or access point policies
S3 will block new bucket and access point policies that grant public access to buckets and objects. This setting doesn't change any existing policies that allow public access to S3 resources.
- Block public and cross-account access to buckets and objects through any public bucket or access point policies
S3 will ignore public and cross-account access for buckets or access points with policies that grant public access to buckets and objects.

At the bottom right of the dialog are 'Cancel' and 'Save changes' buttons.

The screenshot shows the 'mynewweb3366' bucket details page. The 'Permissions' tab is selected. The 'Permissions overview' section shows that 'Bucket and objects not public' is selected. The 'Block public access (bucket settings)' section is expanded, showing the following text:
Public access is granted to buckets and objects through access control lists (ACLs), bucket policies, access point policies, or all. In order to ensure that public access to all your S3 buckets and objects is blocked, turn on Block all public access. These settings apply only to this bucket and its access points. AWS recommends that you turn on Block all public access, but before applying any of these settings, ensure that your applications will work correctly without public access. If you require some level of public access to your buckets or objects within, you can customize the individual settings below to suit your specific storage use cases. Learn more [\[Link\]](#)

Under the 'Block all public access' heading, there is a button labeled 'Edit' and a note: 'On'. Below this is a note: 'Individual Block Public Access settings for this bucket'.

The 'Bucket policy' section shows a note: 'Public access is blocked because Block Public Access settings are turned on for this bucket'. It also includes a link: 'To determine which settings are turned on, check your Block Public Access settings for this bucket. Learn more about using Amazon S3 Block Public Access [\[Link\]](#)'.

Block public access (bucket settings)

Public access is granted to buckets and objects through access control lists (ACLs), bucket policies, access point policies, or all. In order to ensure that public access to all your S3 buckets and objects is blocked, turn on Block all public access. These settings apply only to this bucket and its access points. AWS recommends that you turn on Block all public access, but before applying any of these settings, ensure that your applications will work correctly without public access. If you require some level of public access to your buckets or objects within, you can customize the individual settings below to suit your specific storage use cases. [Learn more](#)

Block all public access
Turning this setting on is the same as turning on all four settings below. Each of the following settings are independent of one another.

- Block public access to buckets and objects granted through new access control lists (ACLs)**
S3 will block public access permissions applied to newly added buckets or objects, and prevent the creation of new public access ACLs for existing buckets and objects. This setting doesn't change any existing permissions that allow public access to S3 resources using ACLs.
- Block public access to buckets and objects granted through any access control lists (ACLs)**
S3 will ignore all ACLs that grant public access to buckets and objects.
- Block public access to buckets and objects granted through new public bucket or access point policies**
S3 will block new bucket and access point policies that grant public access to buckets and objects. This setting doesn't change any existing policies that allow public access to S3 resources.
- Block public and cross-account access to buckets and objects through any public bucket or access point policies**
S3 will ignore public and cross-account access for buckets or access points with policies that grant public access to buckets and objects.

[Cancel](#) [Save changes](#)

Amazon S3 > Buckets > mynewweb3366

mynewweb3366 [Info](#)

[Objects](#) [Properties](#) [Permissions](#) [Metrics](#) [Management](#) [Access Points](#)

Permissions overview

Access
[Objects can be public](#)

Block public access (bucket settings)

Public access is granted to buckets and objects through access control lists (ACLs), bucket policies, access point policies, or all. In order to ensure that public access to all your S3 buckets and objects is blocked, turn on Block all public access. These settings apply only to this bucket and its access points. AWS recommends that you turn on Block all public access, but before applying any of these settings, ensure that your applications will work correctly without public access. If you require some level of public access to your buckets or objects within, you can customize the individual settings below to suit your specific storage use cases. [Learn more](#)

[Edit](#)

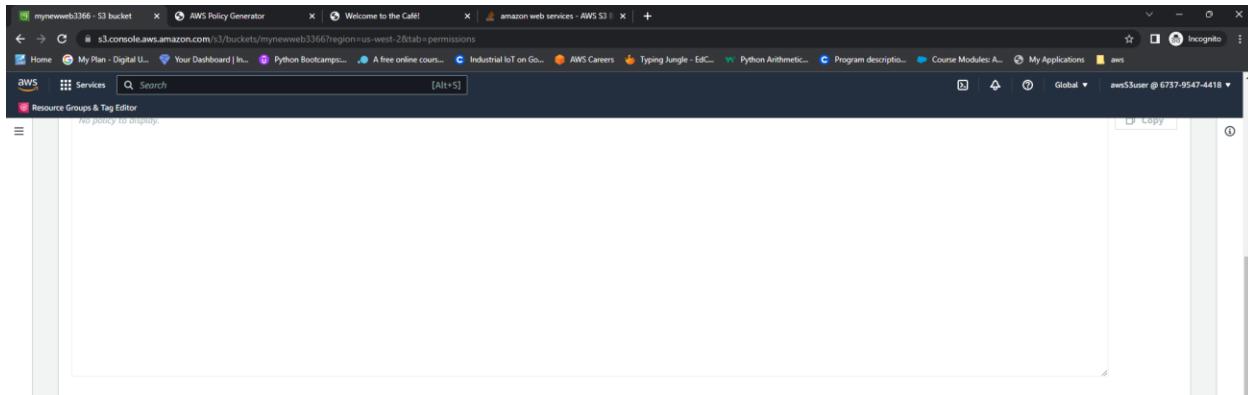
Block all public access
⚠ OFF
► Individual Block Public Access settings for this bucket

Bucket policy

The bucket policy, written in JSON, provides access to the objects stored in the bucket. Bucket policies don't apply to objects owned by other accounts. [Learn more](#)

[Edit](#) [Delete](#)

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Object Ownership Info

Control ownership of objects written to this bucket from other AWS accounts and the use of access control lists (ACLs). Object ownership determines who can specify access to objects.

Object Ownership

Bucket owner enforced

ACLs are disabled. All objects in this bucket are owned by this account. Access to this bucket and its objects is specified using only policies.

Access control list (ACL)

Grant basic read/write permissions to other AWS accounts. Learn more ?

This bucket has the bucket owner enforced setting applied for Object Ownership. When bucket owner enforced is applied, use bucket policies to control access. Learn more ?

Amazon S3 > Buckets > mynewweb3366 > Edit Object Ownership

Edit Object Ownership Info

Object Ownership

Control ownership of objects written to this bucket from other AWS accounts and the use of access control lists (ACLs). Object ownership determines who can specify access to objects.

ACLs disabled (recommended)
All objects in this bucket are owned by this account. Access to this bucket and its objects is specified using only policies.

ACLs enabled
Objects in this bucket can be owned by other AWS accounts. Access to this bucket and its objects can be specified using ACLs.

Object Ownership

Bucket owner enforced

Cancel **Save changes**

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CloudShell Feedback Language

Screenshot of the AWS S3 Bucket Properties page showing the Object Ownership section.

Object Ownership

Control ownership of objects written to this bucket from other AWS accounts and the use of access control lists (ACLs). Object ownership determines who can specify access to objects.

ACLs disabled (recommended)
All objects in this bucket are owned by this account. Access to this bucket and its objects is specified using only policies.

ACLs enabled
Objects in this bucket can be owned by other AWS accounts. Access to this bucket and its objects can be specified using ACLs.

⚠ We recommend disabling ACLs, unless you need to control access for each object individually or to have the object writer own the data they upload. Using a bucket policy instead of ACLs to share data with users outside of your account simplifies permissions management and auditing.

⚠ Enabling ACLs turns off the bucket owner enforced setting for Object Ownership
Once the bucket owner enforced setting is turned off, access control lists (ACLs) and their associated permissions are restored. Access to objects that you do not own will be based on ACLs and not the bucket policy.

I acknowledge that ACLs will be restored.

Object Ownership

Bucket owner preferred
If new objects written to this bucket specify the bucket-owner-full-control canned ACL, they are owned by the bucket owner. Otherwise, they are owned by the object writer.

Object writer
The object writer remains the object owner.

If you want to enforce object ownership for new objects only, your bucket policy must specify that the bucket-owner-full-control canned ACL is required for object uploads. Learn more [\[link\]](#)

Save changes

Screenshot of the AWS S3 Bucket Properties page showing the Bucket Policy section.

Bucket policy

The bucket policy, written in JSON, provides access to the objects stored in the bucket. Bucket policies don't apply to objects owned by other accounts. Learn more [\[link\]](#)

No policy to display.

Edit **Delete** **Copy**

Object Ownership info

Control ownership of objects written to this bucket from other AWS accounts and the use of access control lists (ACLs). Object ownership determines who can specify access to objects.

Object Ownership

Bucket owner preferred

ACLs are enabled and can be used to grant access to this bucket and its objects. If new objects written to this bucket specify the bucket-owner-full-control canned ACL, they are owned by the bucket owner. Otherwise, they are owned by the object writer.

Edit

Screenshot of the AWS S3 Bucket Properties page showing the Access Control List (ACL) section.

Access control list (ACL)

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Search

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The screenshot shows the AWS S3 Bucket Policy settings page for the 'mynewweb3366' bucket. At the top, a green success message states: "Successfully edited Block Public Access settings for this bucket." Below this, the "Bucket policy" section is displayed, showing a JSON editor with the placeholder text: "No policy to display." There is a "Copy" button next to the editor. At the bottom right of the policy area, there are "Edit" and "Delete" buttons.

Bucket policy
The bucket policy, written in JSON, provides access to the objects stored in the bucket. Bucket policies don't apply to objects owned by other accounts. Learn more [\[Link\]](#)

No policy to display.

[Edit](#) [Delete](#)

Object Ownership [Info](#)
Control ownership of objects written to this bucket from other AWS accounts and the use of access control lists (ACLs). Object ownership determines who can specify access to objects.

Object Ownership [Edit](#)
Bucket owner enforces

Bucket policy
The bucket policy, written in JSON, provides access to the objects stored in the bucket. Bucket policies don't apply to objects owned by other accounts. Learn more [\[Link\]](#)

Bucket ARN [am:aws:s3:::mynewweb3366](#)

Policy

1 | [Edit statement](#)

Select a statement
Select an existing statement in the policy or add a new statement.

[+ Add new statement](#)

[Policy examples](#) [Policy generator](#)

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Screenshot of the AWS Policy Generator interface showing the creation of an S3 Bucket Policy.

Step 1: Select Policy Type
A Policy is a container for permissions. The different types of policies you can create are an IAM Policy, an S3 Bucket Policy, an SNS Topic Policy, a VPC Endpoint Policy, and an SQS Queue Policy.

Select Type of Policy: S3 Bucket Policy

Step 2: Add Statement(s)
A statement is the formal description of a single permission. See a description of elements that you can use in statements.

Effect: Allow (radio button selected)
Principal:
AWS Service: Amazon S3 (dropdown)
Actions: 3 Action(s) Selected (dropdown)
Amazon Resource Name (ARN): arn:s3::mynewweb3366/*
Add Conditions (Optional)

Step 3: Generate Policy
A policy is a document (written in the Access Policy Language) that acts as a container for one or more statements.
Add one or more statements above to generate a policy.

You added the following statements. Click the button below to Generate a policy.

Principal(s)	Effect	Action	Resource	Conditions
*	Allow	s3:DeleteBucket s3:GetObject s3:PutObject	arn:aws:s3:::mynewweb3366/*	None

Step 3: Generate Policy
A policy is a document (written in the Access Policy Language) that acts as a container for one or more statements.

Generate Policy Start Over

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mynewweb3366 - S3 bucket AWS Policy Generator Welcome to the Café! amazon web services - AWS S3

Step 2: Add Statement(s)

A statement is the formal description of a single permission. See a description of elements that you can use in statements.

Effect Allow Deny

Principal

Use a comma to separate multiple values.

AWS Service Amazon S3 All Services (***)

Amazon Resource Name

Policy JSON Document

Click below to edit. To save the policy, copy the text below to a text editor. Changes made below will not be reflected in the policy generator tool.

```
{ "Id": "Policy1683457951810", "Version": "2012-10-17", "Statement": [ { "Sid": "Stmt1683457932265", "Action": "s3:DeleteObject", "Resource": "arn:aws:s3:::mynewweb3366/*", "Effect": "Allow", "Principal": "*" } ] }
```

You added the following statement(s):

Principal(s)	Action	Resource
*	s3:DeleteObject	arn:aws:s3:::mynewweb3366/*

Step 3: Generate Policy

A policy is a document (written in JSON) that defines the permissions for your AWS resources.

Close

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Step 2: Add Statement(s)

A statement is the formal description of a single permission. See a description of elements that you can use in statements.

Effect Allow Deny

Principal

Use a comma to separate multiple values.

AWS Service Amazon S3 All Services (***)

Amazon Resource Name

Policy JSON Document

Click below to edit. To save the policy, copy the text below to a text editor. Changes made below will not be reflected in the policy generator tool.

```
{ "Id": "Policy1683457967738", "Version": "2012-10-17", "Statement": [ { "Sid": "Stmt1683457932265", "Action": "s3:DeleteBucket", "Resource": "arn:aws:s3:::mynewweb3366", "Effect": "Allow", "Principal": "*" } ] }
```

You added the following statement(s):

Principal(s)	Action	Resource
*	s3:DeleteBucket	arn:aws:s3:::mynewweb3366

Step 3: Generate Policy

A policy is a document (written in JSON) that defines the permissions for your AWS resources.

Close

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34°C Mostly sunny Search

mynewweb3366 - S3 bucket AWS Policy Generator Welcome to the Café! amazon web services - AWS S3

The screenshot shows the AWS S3 Bucket Policy Editor. The policy is defined as follows:

```

{
    "Version": "2012-10-17",
    "Id": "Policy1683455078164",
    "Statement": [
        {
            "Sid": "Stmt1683455076011",
            "Effect": "Allow",
            "Principal": "*",
            "Action": [
                "s3:DeleteObject",
                "s3:GetObject",
                "s3:PutObject"
            ],
            "Resource": "arn:aws:s3:::mynewweb3366/*"
        }
    ]
}

```

The right side of the screen shows a modal for "Edit statement" with the heading "Select a statement" and a button "+ Add new statement".

Bucket policy:

```
{
    "Version": "2012-10-17",
    "Id": "Policy1683455078164",
    "Statement": [
        {
            "Sid": "Stmt1683455076011",
            "Effect": "Allow",
            "Principal": "*",
            "Action": [
                "s3:DeleteObject",
                "s3:GetObject",
                "s3:PutObject"
            ],
            "Resource": "arn:aws:s3:::mynewweb3366/*"
        }
    ]
}
```

The screenshot shows the AWS S3 Bucket Policy editor. A success message at the top says "Successfully edited bucket policy." Below it, a green bar indicates "Individual Block Public Access settings for this bucket". The main area displays the JSON-based bucket policy:

```
{
  "Version": "2012-10-17",
  "Id": "Policy1683455078164",
  "Statement": [
    {
      "Sid": "Stmt1683455076011",
      "Effect": "Allow",
      "Principal": "*",
      "Action": [
        "s3:DeleteObject",
        "s3:GetObject",
        "s3:PutObject"
      ],
      "Resource": "arn:aws:s3:::mynewweb3366/*"
    }
  ]
}
```

Below the policy, there's an "Object Ownership" section with a "Info" link and a "Copy" button. The status is "Publicly accessible".

The screenshot shows the "Permissions" tab for the mynewweb3366 bucket. It has tabs for Objects, Properties, Permissions (selected), Metrics, Management, and Access Points. Under "Permissions overview", it shows "Access" set to "Public".

Under "Block public access (bucket settings)", it says "Block all public access" is off. A link "Edit" is available to change these settings.

At the bottom, there's a "Edit" button for individual block public access settings.

Screenshot of the AWS S3 console showing the 'Buckets' page.

The left sidebar shows navigation links for Buckets, Storage Points, Object Lambda Access Points, Multi-Region Access Points, Batch Operations, IAM Access Analyzer for S3, Block Public Access settings for this account, Storage Lens, Dashboards, and AWS Organizations settings. It also features a Feature spotlight and a link to the AWS Marketplace for S3.

The main content area displays an 'Account snapshot' with a 'View Storage Lens dashboard' button. Below it is a table titled 'Buckets (1) Info' with one item: 'mynewweb3366'. The table includes columns for Name, AWS Region, Access, and Creation date. The bucket details show it was created on May 7, 2023, at 15:07:25 (UTC+05:30) in the US West (Oregon) region. The access level is set to 'Public'.



mynewweb3366 - S3 bucket

Welcome to the Cafe!

amazon web services - AWS S3

Amazon S3 > Buckets > mynewweb3366

mynewweb3366 Info

Publicly accessible

Objects Properties Permissions Metrics Management Access Points

Objects (3)

Objects are the fundamental entities stored in Amazon S3. You can use Amazon S3 inventory to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. Learn more

Name	Type	Last modified	Size	Storage class
css/	Folder	-	-	-
images/	Folder	-	-	-
index.html	html	May 7, 2023, 16:00:19 (UTC+05:30)	2.9 KB	Standard

CloudShell Feedback Language

24°C Mostly sunny

mynewweb3366 - S3 bucket

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amazon web services - AWS S3

amazon web services - S3 Bucket

Amazon S3 > Buckets > mynewweb3366 > css/

Copy S3 URI

Objects Properties

Objects (1)

Objects are the fundamental entities stored in Amazon S3. You can use Amazon S3 inventory to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. Learn more

Name	Type	Last modified	Size	Storage class
styles.css	css	May 7, 2023, 17:02:08 (UTC+05:30)	541.0 B	Standard

CloudShell Feedback Language

23°C Heavy rain soon

mynewweb3366 - S3 bucket

Welcome to the Cafe!

amazon web services - AWS S3

amazon web services - S3 Bucket

Amazon S3 > Buckets > mynewweb3366 > css/ > styles.css

Copy S3 URI

Objects Properties

Objects (1)

Objects are the fundamental entities stored in Amazon S3. You can use Amazon S3 inventory to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. Learn more

Name	Type	Last modified	Size	Storage class
styles.css	css	May 7, 2023, 17:02:08 (UTC+05:30)	541.0 B	Standard

```
.header { background-color: black; color: white; padding: 10px; }
```

Screenshot of the AWS S3 console showing the contents of the 'images' folder in the 'mynewweb3366' bucket.

The left sidebar shows the navigation path: Amazon S3 > Buckets > mynewweb3366 > images/

The main content area displays the following table of objects:

Name	Type	Last modified	Size	Storage class
Cafe-Owners.png	png	May 7, 2023, 17:02:08 (UTC+05:30)	2.7 MB	Standard
Cake-Vitrine.png	png	May 7, 2023, 17:02:08 (UTC+05:30)	3.8 MB	Standard
Coffee-and-Pastry.png	png	May 7, 2023, 17:02:08 (UTC+05:30)	3.1 MB	Standard
Coffee-Shop.png	png	May 7, 2023, 17:02:08 (UTC+05:30)	17.1 KB	Standard
Cookies.png	png	May 7, 2023, 17:02:08 (UTC+05:30)	1.4 MB	Standard
Cup-of-Hot-Chocolate.png	png	May 7, 2023, 17:02:08 (UTC+05:30)	3.6 MB	Standard
Strawberry-&-Blueberry-Tarts.png	png	May 7, 2023, 17:02:08 (UTC+05:30)	2.9 MB	Standard
Strawberry-Tarts.png	png	May 7, 2023, 17:02:08 (UTC+05:30)	3.4 MB	Standard

Below the table, there is a search bar labeled "Find objects by prefix:" and a toolbar with various actions: Copy S3 URI, Copy URL, Download, Open, Delete, Actions, Create folder, and Upload.

Task 7: Create a batch file to make updating the website repeatable

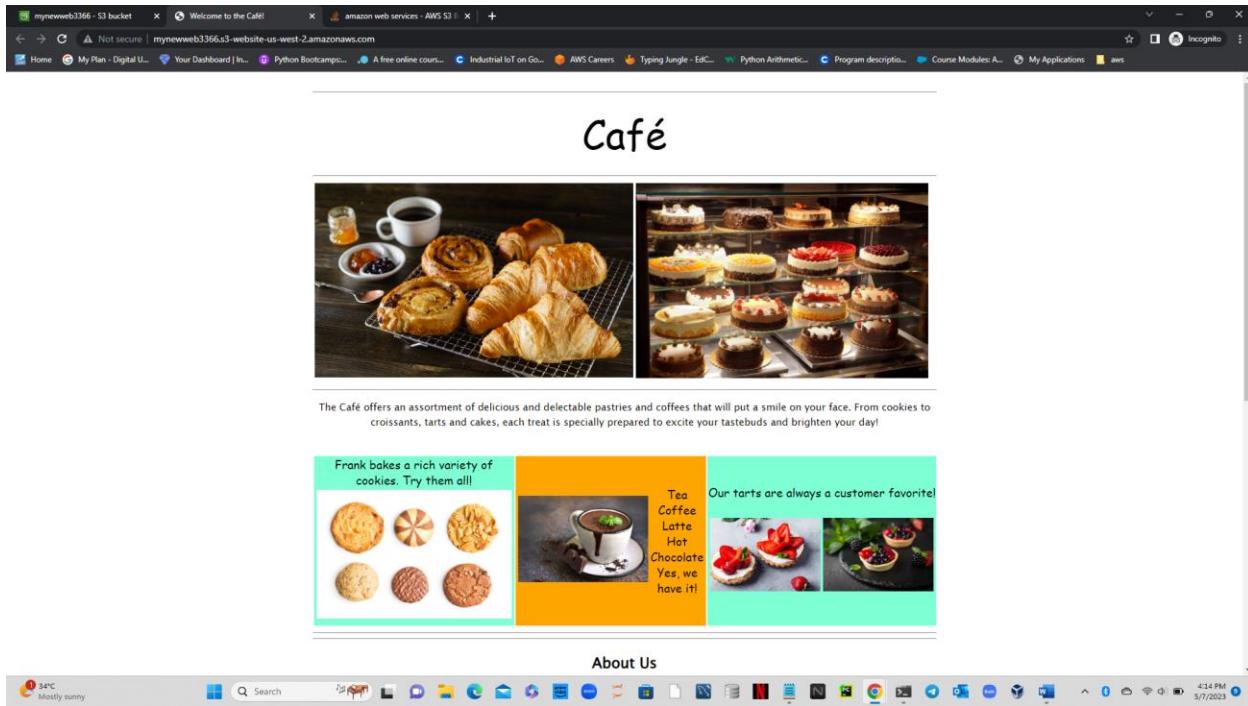
```
[ec2-user@ip-10-200-0-223 ~]$ touch update-website.sh  
[ec2-user@ip-10-200-0-223 ~]$ vi update-website.sh
```

A screenshot of a terminal window titled "ec2-user@ip-10-200-0-223 ~". The window shows the following command sequence:

```
#!/bin/bash  
aws s3 cp /home/ec2-user/sysops-activity-files/static-website/ s3://mynewweb3366 --recursive --acl public-read
```

The terminal indicates that the file is in "INSERT" mode. Below the terminal window is a desktop interface showing a taskbar with various application icons.

```
[ec2-user@ip-10-200-0-223 ~]$ chmod +x update-website.sh  
[ec2-user@ip-10-200-0-223 ~]$ ll  
total 4  
drwxr-xr-x 3 ec2-user ec2-user 60 May 7 10:00 sysops-activity-files  
-rwxrwxr-x 1 ec2-user ec2-user 124 May 7 10:36 update-website.sh
```



```
[ec2-user@ip-10-200-0-223 ~]$ vi sysops-activity-files/static-website/index.html
```

```
[ec2-user@ip-10-200-0-223 ~]$ ./update-website.sh
```

```
upload: sysops-activity-files/static-website/css/styles.css to s3://mynewweb3366/css/styles.css
```

```
upload: sysops-activity-files/static-website/index.html to s3://mynewweb3366/index.html
```

```
upload: sysops-activity-files/static-website/images/Coffee-Shop.png to
```

```
s3://mynewweb3366/images/Coffee-Shop.png
```

```
upload: sysops-activity-files/static-website/images/Cafe-Owners.png to
```

```
s3://mynewweb3366/images/Cafe-Owners.png
```

```
upload: sysops-activity-files/static-website/images/Cookies.png to
```

```
s3://mynewweb3366/images/Cookies.png
```

```
upload: sysops-activity-files/static-website/images/Strawberry-&-Blueberry-Tarts.png to
```

```
s3://mynewweb3366/images/Strawberry-&-Blueberry-Tarts.png
```

```
upload: sysops-activity-files/static-website/images/Cake-Vitrine.png to
```

```
s3://mynewweb3366/images/Cake-Vitrine.png
```

```
upload: sysops-activity-files/static-website/images/Cup-of-Hot-Chocolate.png to
```

```
s3://mynewweb3366/images/Cup-of-Hot-Chocolate.png
```

```
upload: sysops-activity-files/static-website/images/Coffee-and-Pastries.png to
```

```
s3://mynewweb3366/images/Coffee-and-Pastries.png
```

```
upload: sysops-activity-files/static-website/images/Strawberry-Tarts.png to
```

```
s3://mynewweb3366/images/Strawberry-Tarts.png
```

```

ec2-user@ip-10-200-0-223: ~ + v
  <meta charset="ISO-8859-1">
  <title>Welcome to the Caf&eacute;</title>
  <link rel="stylesheet" href="css/styles.css">
</head>

<body class="bodyStyle">

  <div id="header" class="mainHeader">
    <hr>
    <div class="center">Caf&eacute;</div>
  </div>
  <br>

  <div id="mainContent">
    <hr>
    <div id="mainPictures" class="center">
      <table>
        <tr>
          <td></td>
          <td></td>
        </tr>
      </table>
      <br>
      <p>The Caf&eacute; offers an assortment of delicious and delectable pastries and coffees that will put a smile on your face. From cookies to croissants, tarts and cakes, each treat is specially prepared to excite your tastebuds and brighten your day!</p>
      <br>
      <table>
        <tr>
          <td style="background-color: #f0f0f0;">
            <div class="cursiveText">Frank bakes a rich variety of cookies. Try them all!</div>
          </td>
          <td></td>
        </tr>
      </table>
      <br>
      <td style="background-color: #f0f0f0;">
        <div class="cursiveText">Our tarts are always a customer favorite!<br><br>
      </div>
      <table>
        <tr>
          <td></td>
          <td class="cursiveText">Tea<br>Coffee<br>Hot Chocolate<br>Yes, we have it!</td>
        </tr>
      </table>
      <br>
      <td style="background-color: #f0f0f0;">
        <div class="cursiveText">Our tarts are always a customer favorite!<br><br>
      </div>
      <table>
        <tr>
          <td></td>
        </tr>
      </table>
    </div>
  </div>
  <br>
</body>

```

index.html :

```

<meta charset="ISO-8859-1">
  <title>Welcome to the Caf&eacute;!</title>
  <link rel="stylesheet" href="css/styles.css">
</head>

<body class="bodyStyle">

  <div id="header" class="mainHeader">
    <hr>
    <div class="center">Caf&eacute;</div>
  </div>
  <br>

  <div id="mainContent">
    <hr>
    <div id="mainPictures" class="center">
      <table>
        <tr>
          <td></td>
          <td></td>
        </tr>
      </table>
    </div>
  </div>
  <br>

```

```
</table>
<hr>
<p>The Caf&eacute; offers an assortment of delicious and delectable pastries and coffees  
that will put a smile on your face. From cookies to croissants, tarts and cakes, each treat is specially  
prepared to excite your tastebuds and brighten your day!</p>
<br>
<table>
<tr>
<td bgcolor="gainsboro">
    <div class="cursiveText">Frank bakes a rich variety of cookies. Try them  
all!</div>
    <table>
        <tr>
            <td></td>
        </tr>
    </table>
</td>
<td bgcolor="cornsilk">
    <table>
        <tr>
            <td></td>
            <td class="cursiveText">Tea<br>Coffee<br>Latte<br>Hot  
Chocolate<br>Yes, we have it!</td>
        </tr>
    </table>
</td>
<td bgcolor="gainsboro">
    <div class="cursiveText">Our tarts are always a customer favorite!<br><br>
</div>
    <table>
        <tr>
            <td></td>
        </tr>
    </table>
</td>

```

-- INSERT --

47,28-63 6%

mynewweb3366 - S3 bucket Welcome to the Café! amazon web services - AWS S3

Not secure | mynewweb3366.s3-website-us-west-2.amazonaws.com

Home My Plan - Digital U... Your Dashboard | In... Python Bootcamps... A free online course... Industrial IoT on Go... AWS Careers Typing Jungle - Ed... Python Arithmetic... Program descriptio... Course Modules: A... My Applications aws

Incognito

Café



The Café offers an assortment of delicious and delectable pastries and coffees that will put a smile on your face. From cookies to croissants, tarts and cakes, each treat is specially prepared to excite your tastebuds and brighten your day!

Frank bakes a rich variety of cookies. Try them all!



Tea
Coffee
Latte
Hot
Chocolate
Yes, we have it!



About Us



Optional challenge

```
[ec2-user@ip-10-200-0-223 ~]$ vi sysops-activity-files/static-website/index.html
[ec2-user@ip-10-200-0-223 ~]$ ./update-website.sh
upload: sysops-activity-files/static-website/css/styles.css to s3://mynewweb3366/css/styles.css
upload: sysops-activity-files/static-website/images/Coffee-Shop.png to
s3://mynewweb3366/images/Coffee-Shop.png
upload: sysops-activity-files/static-website/index.html to s3://mynewweb3366/index.html
upload: sysops-activity-files/static-website/images/Coffee-and-Pastries.png to
s3://mynewweb3366/images/Coffee-and-Pastries.png
upload: sysops-activity-files/static-website/images/Cafe-Owners.png to
s3://mynewweb3366/images/Cafe-Owners.png
upload: sysops-activity-files/static-website/images/Cookies.png to
s3://mynewweb3366/images/Cookies.png
upload: sysops-activity-files/static-website/images/Cake-Vitrine.png to
s3://mynewweb3366/images/Cake-Vitrine.png
upload: sysops-activity-files/static-website/images/Strawberry-&-Blueberry-Tarts.png to
s3://mynewweb3366/images/Strawberry-&-Blueberry-Tarts.png
upload: sysops-activity-files/static-website/images/Cup-of-Hot-Chocolate.png to
s3://mynewweb3366/images/Cup-of-Hot-Chocolate.png
upload: sysops-activity-files/static-website/images/Strawberry-Tarts.png to
s3://mynewweb3366/images/Strawberry-Tarts.png
```

```

<meta charset="ISO-8859-1">
<title>Welcome to the Cafèacute;</title>
<link rel="stylesheet" href="css/styles.css">
</head>
<body class="bodyStyle">
    <div id="header" class="mainHeader">
        <hr>
        <div class="center">Caféacute;</div>
    </div>
    <br>
    <div id="mainContent">
        <hr>
        <div id="mainPictures" class="center">
            <table>
                <tr>
                    <td></td>
                    <td></td>
                </tr>
            </table>
            <br>
            <p>The Cafèacute; offers an assortment of delicious and delectable pastries and coffees that will put a smile on your face. From cookies to croissants, tarts and cakes, each treat is specially prepared to excite your tastebuds and brighten your day!</p>
            <table>
                <tr>
                    <td style="background-color: #aqua;">
                        <div class="cursiveText">Frank bakes a rich variety of cookies. Try them all!</div>
                        <table>
                            <tr>
                                <td></td>
                            </tr>
                        </table>
                    </td>
                    <td style="background-color: #orange;">
                        <table>
                            <tr>
                                <td></td>
                                <td class="cursiveText">Tea  
Coffee  
Latte  
Hot Chocolate  
Yes, we have it!</td>
                            </tr>
                        </table>
                    </td>
                    <td style="background-color: #green;">
                        <div class="cursiveText">Our tarts are always a customer favorite!<br><br></div>
                    </td>
                </tr>
            </table>
            <br>
            <td></td>
        </div>
    </div>
    <div style="position: absolute; top: 0; right: 0; width: 100px; height: 100px; background-color: black; opacity: 0.5; z-index: 1000; display: flex; align-items: center; justify-content: center; font-size: 10px; color: white; font-weight: bold; border-radius: 50%; border: 1px solid white; padding: 5px; text-decoration: none; text-align: center; font-family: sans-serif; text-decoration: none; color: inherit; border: none; background-color: inherit; outline: none; transition: all 0.3s ease; transform: rotate(-45deg);>Creating a Website on S3 - Word</div>
</body>

```

sysops-activity-files/static-website/index.html [dos] 98L, 2979B

Café



The Café offers an assortment of delicious and delectable pastries and coffees that will put a smile on your face. From cookies to croissants, tarts and cakes, each treat is specially prepared to excite your tastebuds and brighten your day!

Frank bakes a rich variety of cookies. Try them all! 	Tea Coffee Latte Hot Chocolate Yes, we have it! 	Our tarts are always a customer favorite! 
---	--	---

About Us