

# Create a Website on S3

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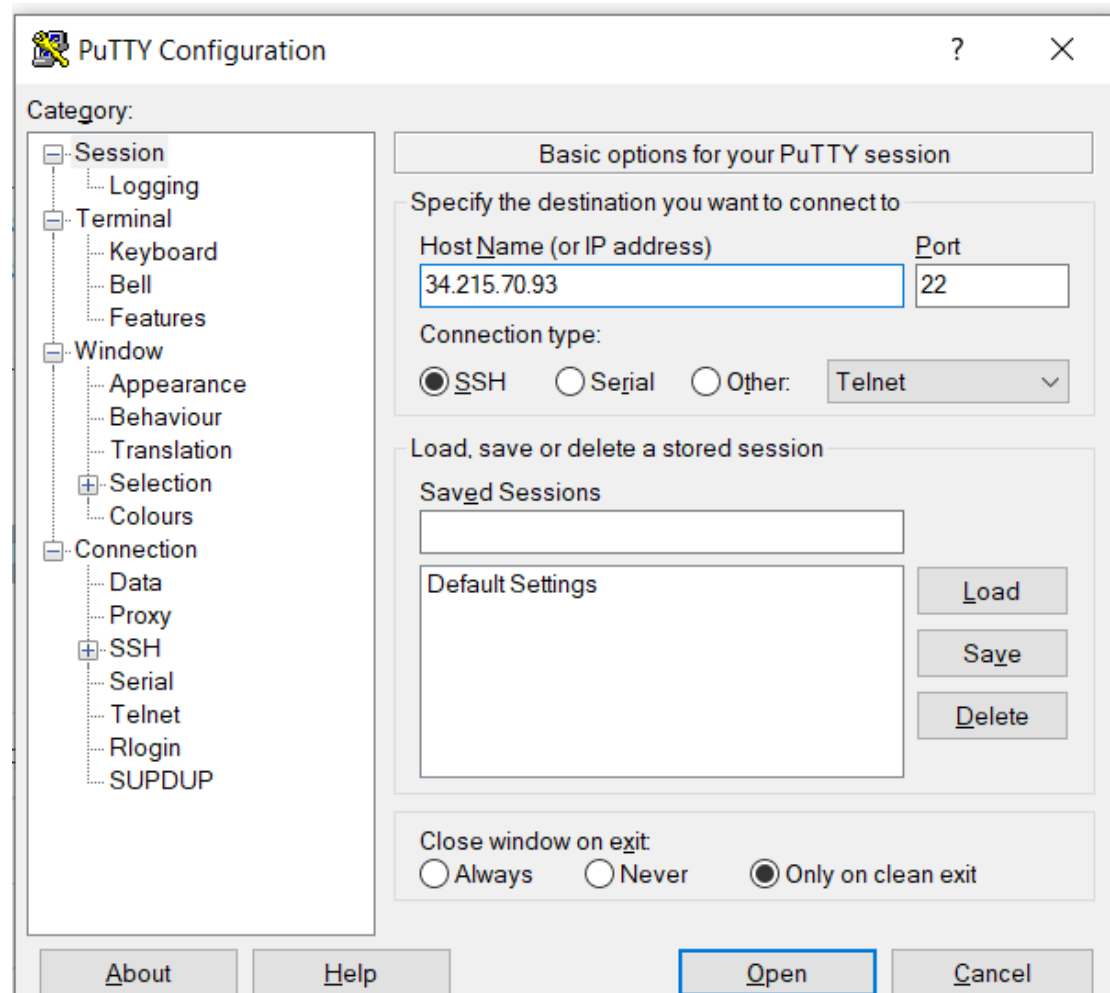
- Create an Amazon Simple Storage Service (Amazon S3) bucket.
- Create a new AWS Identity and Access Management (IAM) user that has full access to the Amazon S3 service.
- Upload files to Amazon S3 to host a simple website for the Café & Bakery.
- Create a batch file that can be used to update the static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



# Using SSH to Connect

1. use **PuTTY** to SSH to Amazon EC2 instances

Copy and paste the **IPv4 Public IP address** for the instance



The image shows the PuTTY Configuration window. On the left is a tree view of categories: Session, Logging, Terminal, Keyboard, Bell, Features, Window, Appearance, Behaviour, Translation, Selection, Colours, Connection, Data, Proxy, SSH, Serial, Telnet, Rlogin, and SUPDUP. The 'SSH' category is selected. The main area is titled 'Basic options for your PuTTY session'. It contains a section 'Specify the destination you want to connect to' with a 'Host Name (or IP address)' field containing '34.215.70.93' and a 'Port' field containing '22'. Below this is a 'Connection type:' section with three radio buttons: 'SSH' (selected), 'Serial', and 'Other:'. To the right of the 'Other:' radio button is a dropdown menu currently showing 'Telnet'. Below the connection type is a section 'Load, save or delete a stored session' containing a 'Saved Sessions' list box (empty) and a 'Default Settings' text area. To the right of these are three buttons: 'Load', 'Save', and 'Delete'. At the bottom of the main area is a section 'Close window on exit' with three radio buttons: 'Always', 'Never', and 'Only on clean exit' (selected). At the very bottom of the window are four buttons: 'About', 'Help', 'Open' (highlighted with a blue border), and 'Cancel'.

PuTTY Configuration

Category:

- Session
- Logging
- Terminal
- Keyboard
- Bell
- Features
- Window
- Appearance
- Behaviour
- Translation
- Selection
- Colours
- Connection
- Data
- Proxy
- SSH
- Serial
- Telnet
- Rlogin
- SUPDUP

Basic options for your PuTTY session

Specify the destination you want to connect to

Host Name (or IP address) Port

34.215.70.93 22

Connection type:

☒ SSH ☐ Serial ☐ Other: Telnet

Load, save or delete a stored session

Saved Sessions

Default Settings

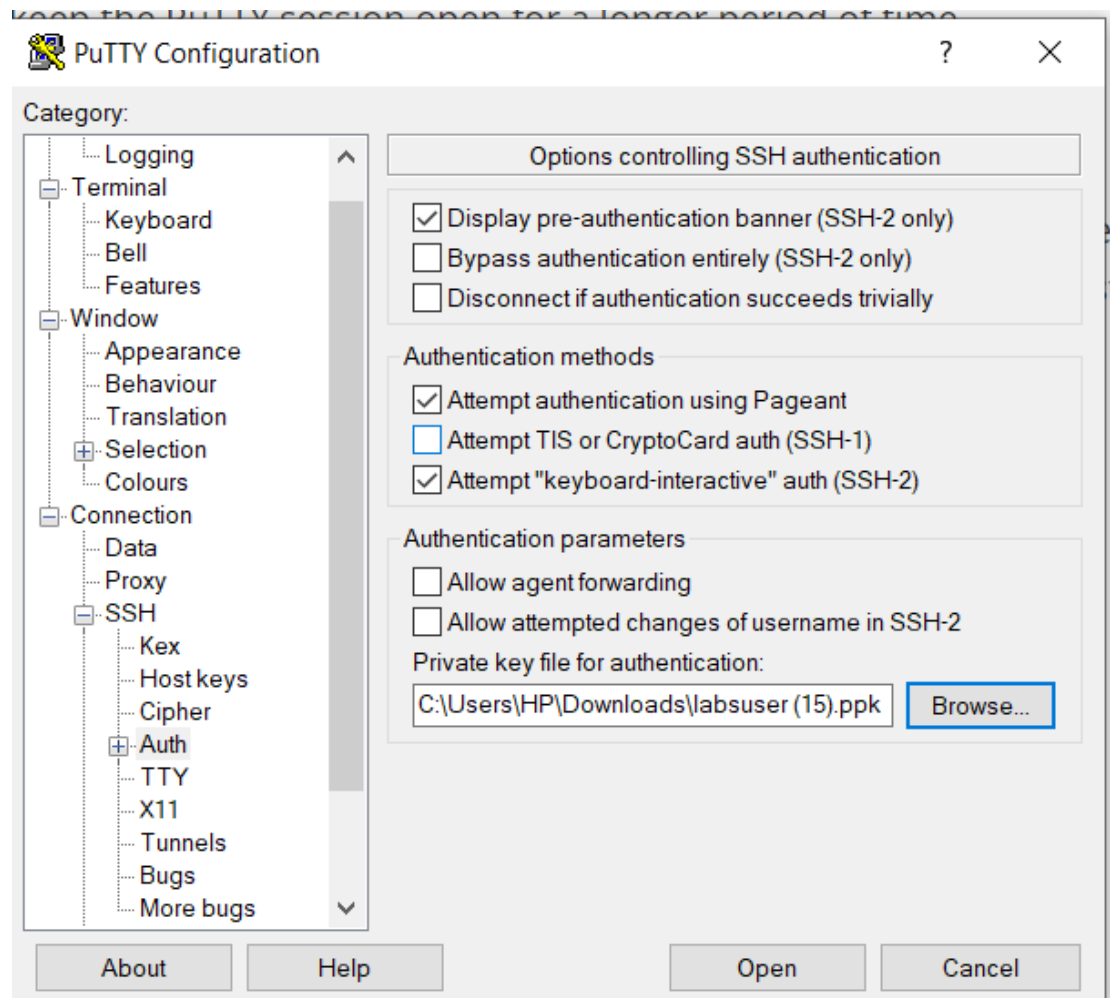
Load Save Delete

Close window on exit

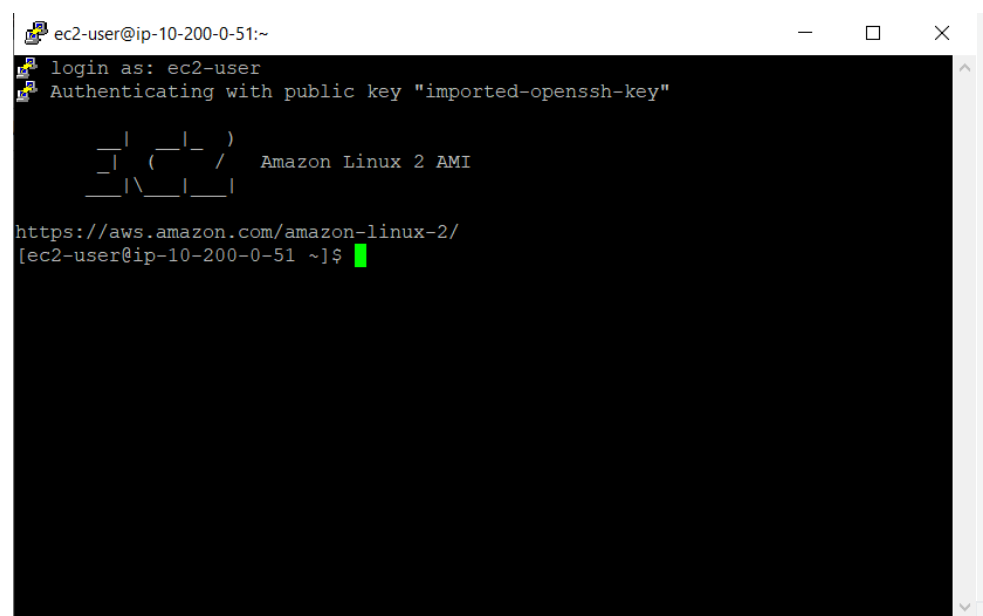
☐ Always ☐ Never ☒ Only on clean exit

About Help Open Cancel

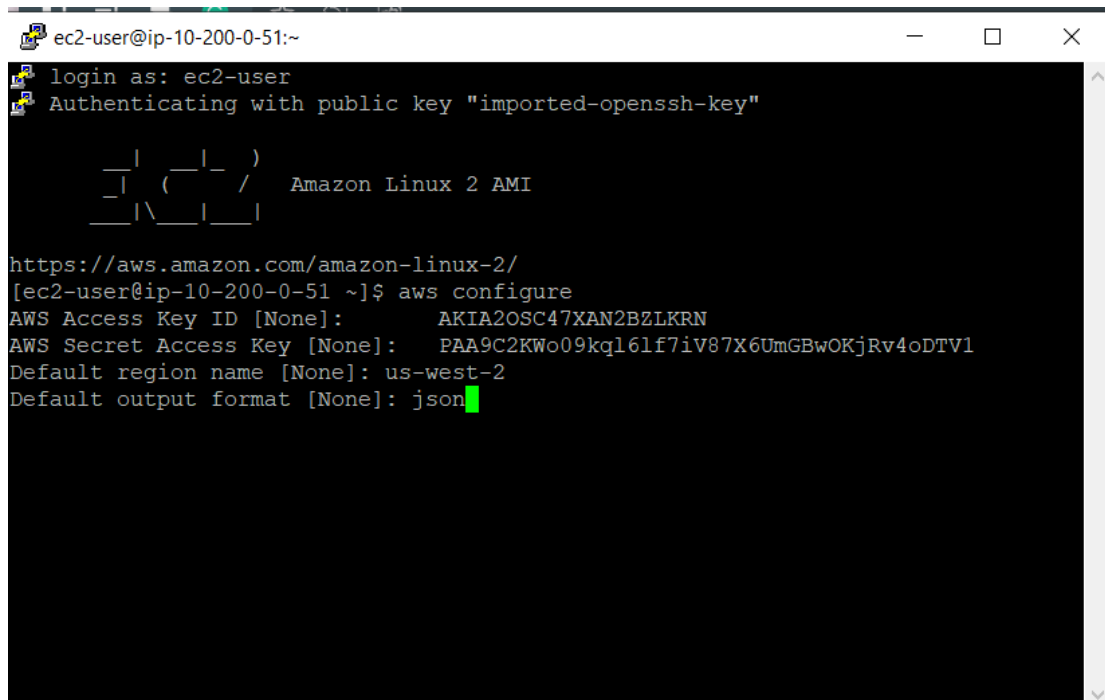
2. Add SSH key file:



3. login as `ec2-user`



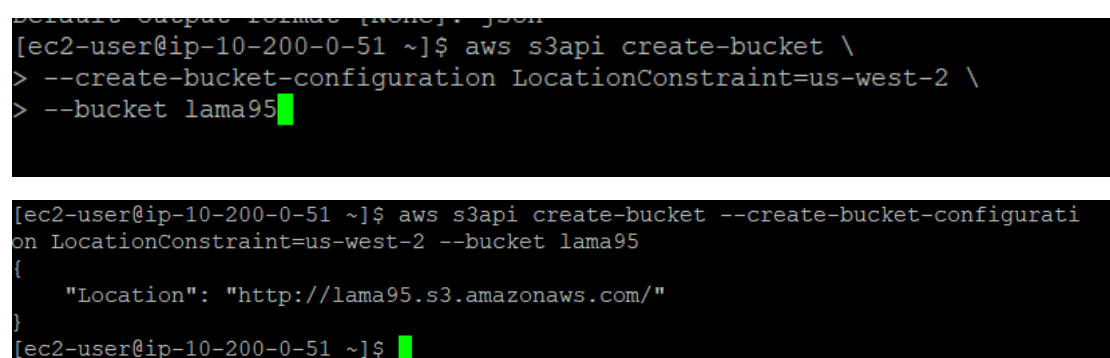
4. Update the AWS CLI software with the credentials.

A terminal window titled 'ec2-user@ip-10-200-0-51:~' showing the process of configuring the AWS CLI. It starts with a login prompt for 'ec2-user' and authentication using a public key. After displaying the Amazon Linux 2 AMI logo, it shows the URL 'https://aws.amazon.com/amazon-linux-2/'. The user then runs 'aws configure', which prompts for the AWS Access Key ID (AKIA2OSC47XAN2BZLKRN), the AWS Secret Access Key (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), the default region name (us-west-2), and the default output format (json).

```
ec2-user@ip-10-200-0-51:~  
login as: ec2-user  
Authenticating with public key "imported-openssh-key"  
  
  _|_  ( _|_ )  
  _|_  ( _|_ ) / Amazon Linux 2 AMI  
  _|_  ( _|_ )  
  _|_  ( _|_ )  
  
https://aws.amazon.com/amazon-linux-2/  
[ec2-user@ip-10-200-0-51 ~]$ aws configure  
AWS Access Key ID [None]: AKIA2OSC47XAN2BZLKRN  
AWS Secret Access Key [None]: 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  
Default region name [None]: us-west-2  
Default output format [None]: json
```

## Create an S3 bucket

aws s3api create-bucket --create-bucket-configuration LocationConstraint=us-west-2 --bucket lama95

A terminal window showing the execution of the 'aws s3api create-bucket' command. The user runs the command with flags for 'LocationConstraint=us-west-2' and 'bucket lama95'. The output is a JSON object indicating the bucket's location.

```
[ec2-user@ip-10-200-0-51 ~]$ aws s3api create-bucket \  
> --create-bucket-configuration LocationConstraint=us-west-2 \  
> --bucket lama95  
  
[ec2-user@ip-10-200-0-51 ~]$ aws s3api create-bucket --create-bucket-configuration LocationConstraint=us-west-2 --bucket lama95  
{  
  "Location": "http://lama95.s3.amazonaws.com/"  
}  
[ec2-user@ip-10-200-0-51 ~]$
```




5. Create iam user :

```
[ec2-user@ip-10-200-0-51 ~]$ aws iam create-user --user-name LamaAWSUser
{
  "User": {
    "UserName": "LamaAWSUser",
    "Path": "/",
    "CreateDate": "2022-11-26T18:00:01Z",
    "UserId": "AIDA2OSC47XADOGNWNWXT",
    "Arn": "arn:aws:iam::718473592256:user/LamaAWSUser"
  }
}
```

6. Create a login profile for the new user

```
}
[ec2-user@ip-10-200-0-51 ~]$ aws iam create-login-profile --user-name LamaAWSUser --password lama95**
{
  "LoginProfile": {
    "UserName": "LamaAWSUser",
    "CreateDate": "2022-11-26T18:01:40Z",
    "PasswordResetRequired": false
  }
}
```

click the **Sign in to the AWS console**



## Sign in

☐ **Root user**  
Account owner that performs tasks requiring unrestricted access. [Learn more](#)

☒ **IAM user**  
User within an account that performs daily tasks. [Learn more](#)

**Account ID (12 digits) or account alias**

إلى العلامة "LamaAWSUser" يرجى تضمين العلامة "@" في عنوان البريد الإلكتروني، حيث يضاف "@" إلى العلامة "LamaAWSUser".

Next

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New to AWS?

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us-east-1 prod.pr.analytics.console.aws.a... | اطلب

```
"User": {
  "UserName": "LamaAWSUser",
  "Path": "/",
  "CreateDate": "2022-11-26T18:00:01Z",
  "UserId": "AIDA2OSC47XADOGNWNWXT",
  "Arn": "arn:aws:iam::718473592256:user/LamaAWSUser"
}
```



## Sign in as IAM user

Account ID (12 digits) or account alias

718473592256

IAM user name

LamaAWSUser

Password

.....

☒ Remember this account

Sign in

[Sign in using root user email](#)

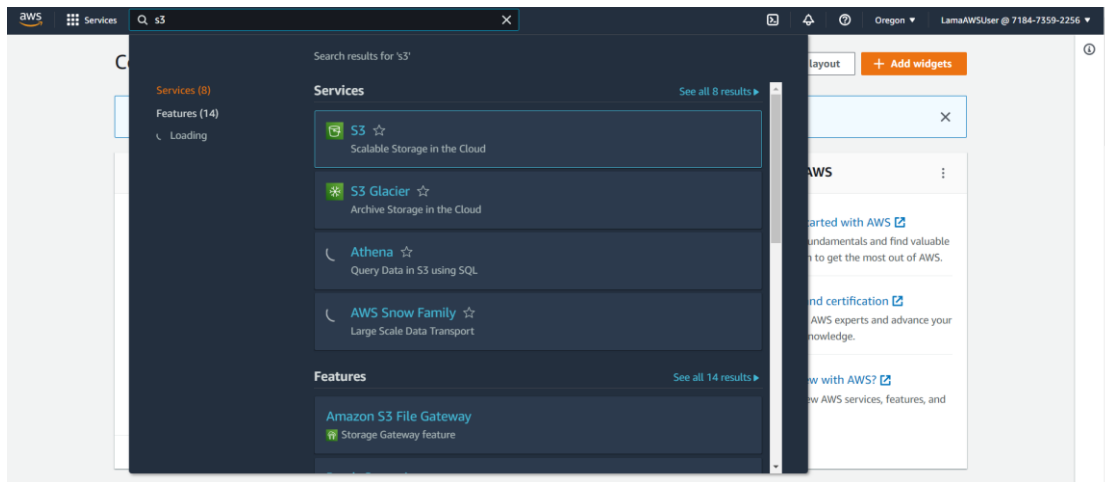
[Forgot password?](#)

AWS re:Invent  
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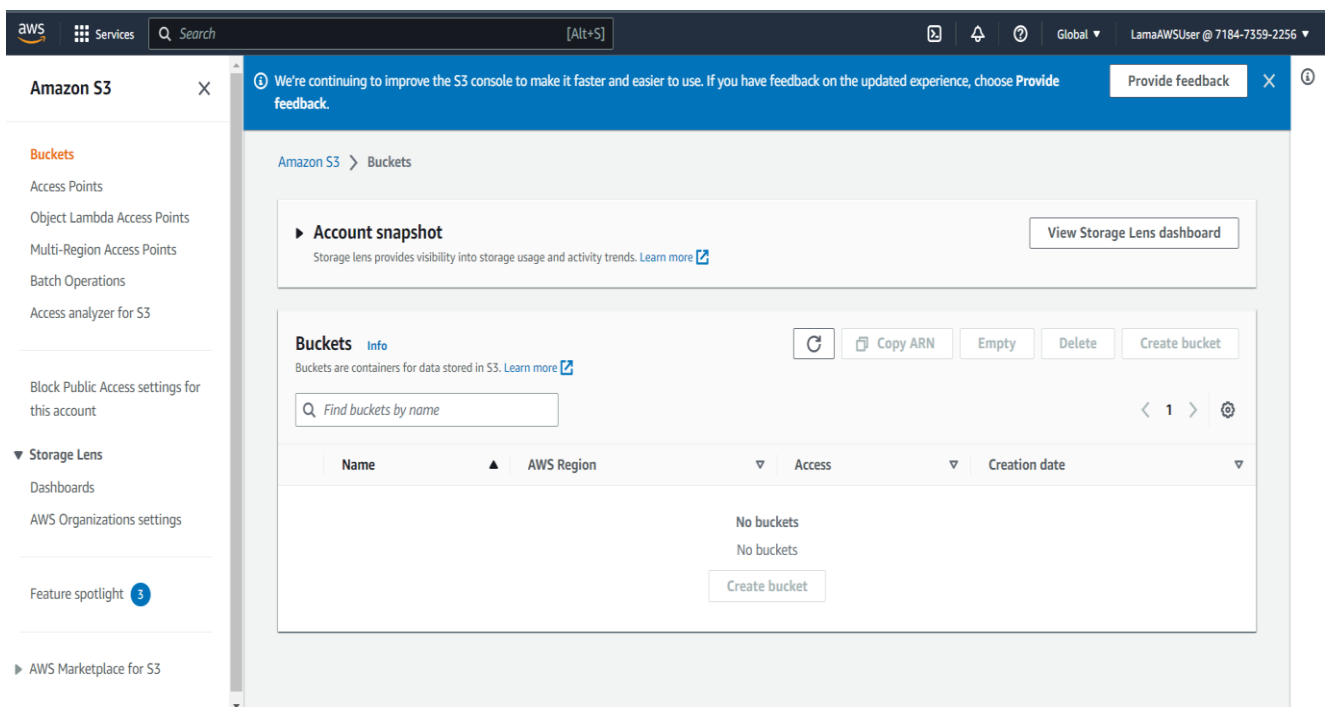
The screenshot shows the AWS Console Home page. At the top, there's a navigation bar with the AWS logo, a search bar, and a user profile dropdown showing 'Oregon' and 'LamaAWSUser @ 7184-7359-2256'. Below the navigation bar, the main content area is titled 'Console Home'. It features a 'Recently visited' section with a list of services: EC2, IAM, RDS, VPC, Inspector, AWS Budgets, Cloud9, DynamoDB, and Systems Manager. To the right, there's a 'Welcome to AWS' section with links for 'Getting started with AWS', 'Training and certification', and 'What's new with AWS?'. A notification banner at the top of the main content area says 'Introducing the new widget Applications. Find it at the bottom of your Console Home.'



This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
<?xml version="1.0" encoding="UTF-8" standalone="true" ?>
<Error>
  <Code>AccessDenied</Code>
  <Message>Access Denied</Message>
  <RequestId>7SDHVM59NHH6BE1</RequestId>
  <HostId>jMnH6CzaINFV1C/7GtFFM8c/buuUzAHXdbw1MVRf1dMn355itAbtM0j3SLz6896f519tFw2j+Gc=</HostId>
</Error>
```

The Amazon S3 service page will display with an error message that states *Access denied*.





Get info about the new user :

```
[ec2-user@ip-10-200-0-51 ~]$ aws sts get-caller-identity
{
  "Account": "718473592256",
  "UserId": "AIDA2OSC47XAFZZ37WFJ2",
  "Arn": "arn:aws:iam::718473592256:user/awsstudent"
}
[ec2-user@ip-10-200-0-51 ~]$
```

7. find the AWS managed policy that grants full access to Amazon S3. Run this command to find it:

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

```
ec2-user@ip-10-200-0-51:~
> ^C
[ec2-user@ip-10-200-0-51 ~]$ aws iam list-policies --query "Policies[?contains(PolicyName,'S3')]"
[
  {
    "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": "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": "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": "AmazonS3ReadOnlyAccess",
    "PermissionsBoundaryUsageCount": 0,
    "CreateDate": "2015-02-06T18:40:59Z",
    "AttachmentCount": 0,
    "IsAttachable": true,
    "PolicyId": "ANPAIZTJ4DXE7G6AGAB6M",
    "DefaultVersionId": "v2",
    "Path": "/",
    "Arn": "arn:aws:iam::aws:policy/AmazonS3ReadOnlyAccess",
    "UpdateDate": "2021-09-27T20:24:58Z"
  }
]
```

8. Grant the **newuser** full access to the S3 bucket by using the following command

```
ec2-user@ip-10-200-0-51 ~]$ aws iam attach-user-policy --policy-arn arn:aws:iam::aws:policy/AmazonS3FullAccess --user-name LamaAWSUser
ec2-user@ip-10-200-0-51 ~]$
```

The *Access denied* error should go away, and you should now see the bucket that you created by using the AWS CLI earlier in this activity

The screenshot shows the AWS Management Console interface for the Amazon S3 service. The left-hand navigation pane lists various S3 features, including Buckets, Access Points, and Storage Lens. The main content area displays the 'Buckets' page, which includes an 'Account snapshot' section and a table of existing buckets. The table shows a single bucket named 'lama95' located in the 'US West (Oregon) us-west-2' region, with the access status 'Objects can be public' and a creation date of 'November 26, 2022, 20:31:36 (UTC+03:00)'. The top of the console features a header with the AWS logo, a search bar, and user information. Below the header, there are two blue informational banners: one about S3 console improvements and another about security best practices. The bottom of the console includes a footer with a feedback link, language selection options, and copyright information.

Name	AWS Region	Access	Creation date
lama95	US West (Oregon) us-west-2	Objects can be public	November 26, 2022, 20:31:36 (UTC+03:00)

## 9. extract the files

```
[ec2-user@ip-10-200-0-51 ~]$ cd ~/sysops-activity-files
[ec2-user@ip-10-200-0-51 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-10-200-0-51 sysops-activity-files]$ cd static-website
[ec2-user@ip-10-200-0-51 static-website]$ ls
css  images  index.html
```

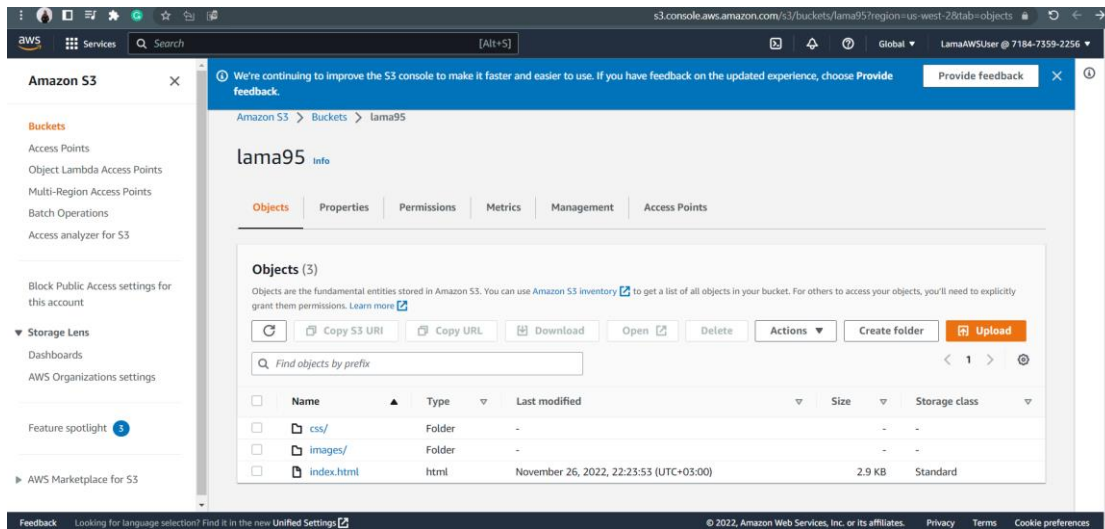
## 10. Prepare the bucket that you created earlier to function as a website

```
[ec2-user@ip-10-200-0-51 static-website]$ aws s3 website s3://lama95/ --index-document index.html
[ec2-user@ip-10-200-0-51 static-website]$
```

## 11. Upload the files to the bucket

```
aws s3 cp /home/ec2-user/sysops-activity-files/static-website/ s3://lama95/ --recursive --acl
public-read
```

```
[ec2-user@ip-10-200-0-51 static-website]$ aws s3 website s3://lama95/ --index-document index.html
[ec2-user@ip-10-200-0-51 static-website]$ aws s3 cp /home/ec2-user/sysops-activity-files/static-website/ s3://lama95/ --recursive --acl public-read
upload: css/styles.css to s3://lama95/css/styles.css
upload: images/Coffee-Shop.png to s3://lama95/images/Coffee-Shop.png
upload: ./index.html to s3://lama95/index.html
upload: images/Cafe-Owners.png to s3://lama95/images/Cafe-Owners.png
upload: images/Cup-of-Hot-Chocolate.png to s3://lama95/images/Cup-of-Hot-Chocolate.png
upload: images/Cake-Vitrine.png to s3://lama95/images/Cake-Vitrine.png
upload: images/Coffee-and-Pastries.png to s3://lama95/images/Coffee-and-Pastries.png
upload: images/Cookies.png to s3://lama95/images/Cookies.png
upload: images/Strawberry-&-Blueberry-Tarts.png to s3://lama95/images/Strawberry-&-Blueberry-Tarts.png
upload: images/Strawberry-Tarts.png to s3://lama95/images/Strawberry-Tarts.png
[ec2-user@ip-10-200-0-51 static-website]$
```



```
[ec2-user@ip-10-200-0-51 static-website]$ aws s3 ls lama95
      PRE css/
      PRE images/
2022-11-26 19:23:53      2980 index.html
[ec2-user@ip-10-200-0-51 static-website]$
```

### Static website hosting

Use this bucket to host a website or redirect requests. [Learn more](#)

Edit

Static website hosting

Enabled

Hosting type

Bucket hosting

Bucket website endpoint

When you configure your bucket as a static website, the website is available at the AWS Region-specific website endpoint of the bucket. [Learn more](#)

<http://lama95.s3-website-us-west-2.amazonaws.com>

### Static website hosting

Use this bucket to host a website or redirect requests. [Learn more](#)

Edit

Static website hosting

Enabled

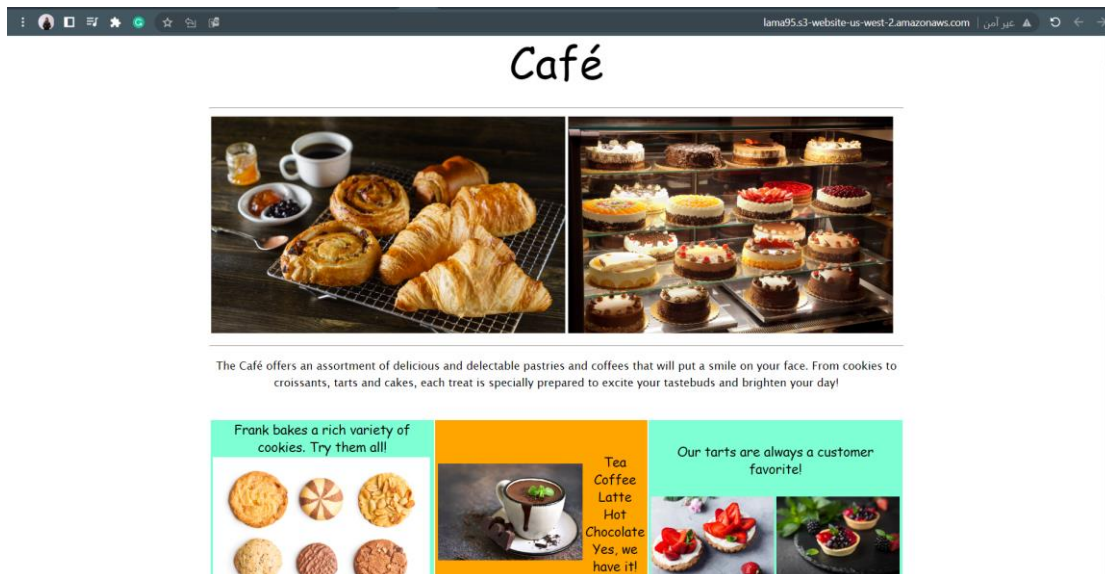
Hosting type

Bucket hosting

Bucket website endpoint

When you configure your bucket as a static website, the website is available at the AWS Region-specific website endpoint of the bucket. [Learn more](#)

<http://lama95.s3-website-us-west-2.amazonaws.com>



Create a batch file to make updating the website easily repeatable

```
[ec2-user@ip-10-200-0-51 static-website]$ cd ~
[ec2-user@ip-10-200-0-51 ~]$ touch update-website.sh
```



```
#!/bin/bash
#
aws s3 cp /home/ec2-user/sysops-activity-files/static-website/ s3://lama95/ --recursive --acl public-read
```

```
[ec2-user@ip-10-200-0-51 ~]$ vi update-website.sh
[ec2-user@ip-10-200-0-51 ~]$ chmod +x update-website.sh
[ec2-user@ip-10-200-0-51 ~]$ vi sysops-activity-files/static-website/index.html
```

```
root@ip-10-200-0-51 ~]$ vi sysops-activity-files/static-website/index.html
root@ip-10-200-0-51 ~]$ ./update-website.sh
sysops-activity-files/static-website/css/styles.css to s3://lama95/css/styles.css
sysops-activity-files/static-website/images/Coffee-Shop.png to s3://lama95/images/Coffee-Shop.png
sysops-activity-files/static-website/images/Cafe-Owners.png to s3://lama95/images/Cafe-Owners.png
sysops-activity-files/static-website/index.html to s3://lama95/index.html
sysops-activity-files/static-website/images/Cake-Vitrine.png to s3://lama95/images/Cake-Vitrine.png
sysops-activity-files/static-website/images/Cookies.png to s3://lama95/images/Cookies.png
sysops-activity-files/static-website/images/Coffee-and-Pastries.png to s3://lama95/images/Coffee-and-Pastries.png
sysops-activity-files/static-website/images/Cup-of-Hot-Chocolate.png to s3://lama95/images/Cup-of-Hot-Chocolate.png
sysops-activity-files/static-website/images/Strawberry-&-Blueberry-Tarts.png to s3://lama95/images/Strawberry-&-Blueberry-Tarts.png
sysops-activity-files/static-website/images/Strawberry-Tarts.png to s3://lama95/images/Strawberry-Tarts.png
root@ip-10-200-0-51 ~]$
```


lama95.s3-website-us-west-2.amazonaws.com | غير آمن

# 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



Our tarts are always a customer favorite!

