

Lab 4

CREATE YOUR FIRST AMAZON S3 BUCKET

STEP 1: Log In to the Amazon Web Service Console

This laboratory experience is about Amazon Web Services and you will use the AWS Management Console in order to complete all the lab steps.

Amazon Web Services

Compute

- EC2: Virtual Servers in the Cloud
- Lambda PREVIEW: Run Code in Response to Events

Storage & Content Delivery

- S3: Scalable Storage in the Cloud
- Storage Gateway: Integrates On-Premises IT Environments with Cloud Storage
- Glacier: Archive Storage in the Cloud
- CloudFront: Global Content Delivery Network

Database

- RDS: MySQL, Postgres, Oracle, SQL Server, and Amazon Aurora
- DynamoDB: Predictable and Scalable NoSQL Data Store
- ElastiCache: In-Memory Cache
- Redshift: Managed Petabyte-Scale Data Warehouse Service

Networking

- VPC: Isolated Cloud Resources
- Direct Connect: Dedicated Network Connection to AWS
- Route 53: Scalable DNS and Domain Name Registration

Administration & Security

- Directory Service: Managed Directories in the Cloud
- Identity & Access Management: Access Control and Key Management
- Trusted Advisor: AWS Cloud Optimization Expert
- CloudTrail: User Activity and Change Tracking
- Config PREVIEW: Resource Configurations and Inventory
- CloudWatch: Resource and Application Monitoring

Deployment & Management

- Elastic Beanstalk: AWS Application Container
- OpsWorks: DevOps Application Management Service
- CloudFormation: Templated AWS Resource Creation
- CodeDeploy: Automated Deployments

Analytics

- EMR: Managed Hadoop Framework
- Kinesis: Real-time Processing of Streaming Big Data
- Data Pipeline: Orchestration for Data-Driven Workflows

Application Services

- SQS: Message Queue Service
- SWF: Workflow Service for Coordinating Application Components
- AppStream: Low Latency Application Streaming
- Elastic Transcoder: Easy-to-use Scalable Media Transcoding
- SES: Email Sending Service
- CloudSearch: Managed Search Service

Mobile Services

- Cognito: User Identity and App Data Synchronization
- Mobile Analytics: Understand App Usage Data at Scale
- SNS: Push Notification Service

Enterprise Applications

- WorkSpaces: Desktops in the Cloud
- Zocalo: Secure Enterprise Storage and Sharing Service

Additional Resources

- Getting Started**
See our documentation to get started and learn more about how to use our services.
- AWS Console Mobile App**
View your resources on the go with our AWS Console mobile app, available from Amazon Appstore, Google Play, or iTunes.
- AWS Marketplace**
Find and buy software, launch with 1-Click and pay by the hour.
- Service Health**
All services operating normally.
Updated: Nov 20 2014 12:57:00 GMT-0800
- Service Health Dashboard**
- Set Start Page**
Console Home

The AWS Management Console is a web control panel for managing all your AWS resources, from EC2 instances to SNS topics. The console enables cloud management for all aspects of the AWS account, including managing security credentials, or even setting up new IAM Users.

Log in to the AWS Management Console

In order to start the laboratory experience, open the Amazon Console by clicking this button:

[Open AWS Console](#)

Log in with the username **xxxxx** and the password **xxxxx**.



Account:

User Name:

Password:



I have an MFA Token ([more info](#))

Sign In

[Sign in using root account credentials](#)

[Terms of Use](#) [Privacy Policy](#)

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Select the right AWS Region

Amazon Web Services is available in different regions all over the world, and the console lets you provision resources across multiple regions. You usually choose a region that best suits your business needs to optimize your customer's experience, but you must use the region **US West (Oregon)** for this laboratory.

You can select the **US West (Oregon)** region using the upper right dropdown menu on the AWS Console page.

Antonio Ang ▾ Oregon ▾ Support ▾

US East (N. Virginia)

| US West (Oregon)

US West (N. California)

EU (Ireland)

EU (Frankfurt)

Asia Pacific (Singapore)

Asia Pacific (Tokyo)

Asia Pacific (Sydney)

South America (São Paulo)

STEP 2: Create an S3 bucket

Amazon Simple Storage Service (Amazon S3) provides secure, durable, and highly scalable object storage. To upload data (photos, videos, documents etc.), you first create a logical storage bucket in one of the AWS regions. Then you can upload any number of objects to it. Buckets and objects are resources, and Amazon S3 provides APIs and a web management console to manage them.

Amazon S3 can be used alone or together with other AWS services such as Amazon EC2, Amazon Elastic Block Store (Amazon EBS), and Amazon Glacier, as well as third-party storage repositories and gateways. Amazon S3 provides cost-effective object storage for a wide variety of use cases including web applications, content distribution, backup and archiving, disaster recovery, and big data analytics.

You can create an S3 bucket using the S3 dashboard.

Select the S3 service from the Management Console dashboard:


Storage & Content Delivery



S3

Scalable Storage in the Cloud

From the S3 console dashboard, click the blue **Create Bucket** button.

 **AWS** ▾ Services ▾ Antonio Angelino ▾ Global ▾ Support ▾

Welcome to Amazon Simple Storage Service

Amazon S3 is storage for the Internet. It is designed to make web-scale computing easier for developers.

Amazon S3 provides a simple web services interface that can be used to store and retrieve any amount of data, at any time, from anywhere on the web. It gives any developer access to the same highly scalable, reliable, secure, fast, inexpensive infrastructure that Amazon uses to run its own global network of web sites. The service aims to maximize benefits of scale and to pass those benefits on to developers.

You can read, write, and delete objects ranging in size from 1 byte to 5 terabytes each. The number of objects you can store is unlimited. Each object is stored in a bucket with a unique key that you assign.

Get started by simply creating a bucket and uploading a test object, for example a photo or .txt file.


[Create Bucket](#)

Additional Information

- [Getting Started Guide](#)
- [Documentation](#)
- [All S3 Resources](#)

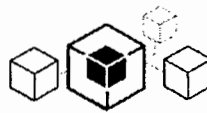
S3 at a glance

Create




Create a bucket in one of several Regions. You can choose a Region to optimize for latency, minimize costs, or address regulatory environments.

Add



Upload objects to your bucket. Amazon S3 durably stores your data in multiple facilities and on multiple devices within each facility.

Manage



Manage your data with Amazon S3's lifecycle management capabilities, including the ability to automatically archive objects to even lower cost storage options.

The **Create a Bucket** dialog box appears and you have to enter the **Bucket Name** and select a **Region** from the selection box.

Bucket names must be globally unique, regardless of the AWS region in which you create the bucket, and they must be DNS-compliant.

The rules for DNS-compliant bucket names are:

Bucket names must be at least 3 and no more than 63 characters long.

Bucket names can contain lowercase letters, numbers, periods, and/or hyphens. Each label must start and end with a lowercase letter or a number.

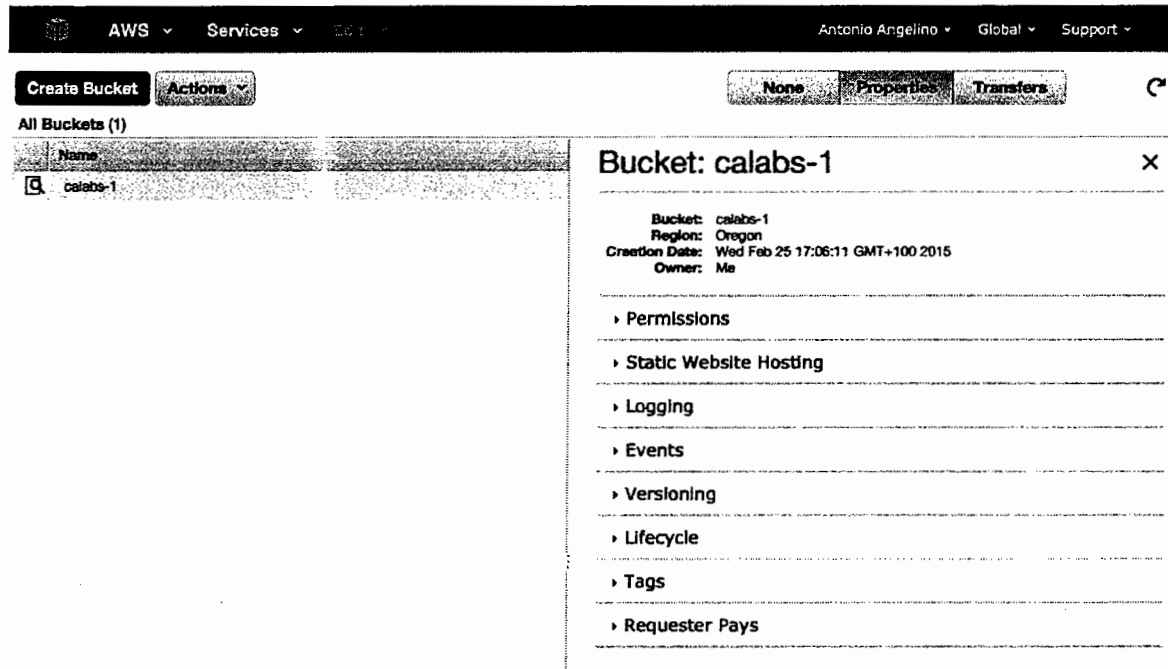
Bucket names must not be formatted as an IP address (e.g., 192.168.1.1).

The following examples are valid bucket names: vepsunbucket , vepsun.bucket , calabs.1 or calabs-bucket .

Please use the following bucket name **calabs-bucket** and add a numeric suffix if you receive the "That bucket already exists" error message.

The screenshot shows a dialog box titled "Create a Bucket - Select a Bucket Name and Region". At the top right is a "Cancel" button with a close icon. Below the title bar, there is a paragraph of text: "A bucket is a container for objects stored in Amazon S3. When creating a bucket, you can choose a Region to optimize for latency, minimize costs, or address regulatory requirements. For more information regarding bucket naming conventions, please visit the Amazon S3 documentation." Below this text are two input fields. The first is labeled "Bucket Name:" and contains the text "calabs-1". The second is labeled "Region:" and is a dropdown menu currently showing "Oregon". At the bottom of the dialog box, there are three buttons: "Set Up Logging >", "Create", and "Cancel".

Click **Create** and the console will display your empty bucket in the buckets list.



STEP 3: Create a folder inside an S3 bucket

The AWS Management Console allows you to create folders for grouping objects. However, in Amazon S3, buckets and objects are the primary resources. A folder simply becomes a prefix for object key names that are virtually archived into it.

Select the S3 service from the Management Console dashboard:

Storage & Content Delivery



S3

Scalable Storage in the Cloud

In the buckets panel, select the bucket **calabs-bucket** and double-click on it. Click **Create Folder**.

Under **Name**, in the box that appears, type **cloudfolder** as the name for the folder, then click the check mark.



STEP 4: Upload a file inside an S3 bucket

When you upload a folder, Amazon S3 uploads all the files and subfolders from the specified folder to your bucket. It then assigns a key value that is a combination of the uploaded file name and the folder name.

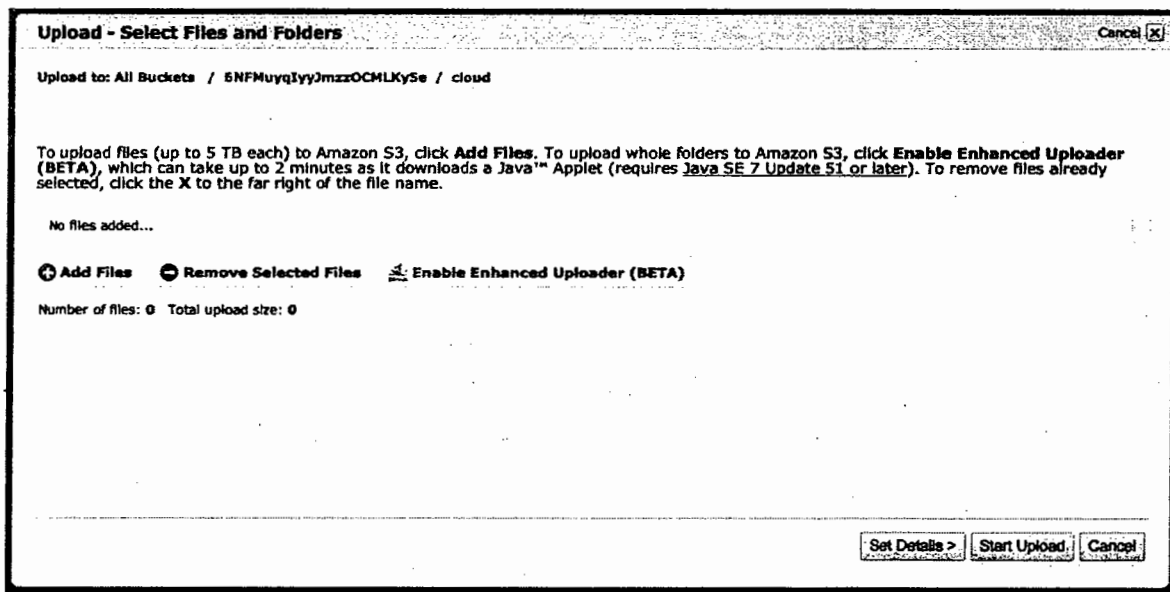
In order to complete this lab step, you have to upload the `vepsun-logo.png` file into the previously created folder.

You can download it from the following link: <https://s3-us-west-2.amazonaws.com/vepsun-labs/scripts/s3/vepsun-logo.png>

Click on the *cloudfolder* folder, and wait until the page reloads.

Click the **Upload** button.

The **Upload - Select Files and Folders** dialog box appears. Add the *vepsun-logo.png* file that you downloaded.



Click **Start Upload**, and then wait until it is uploaded.

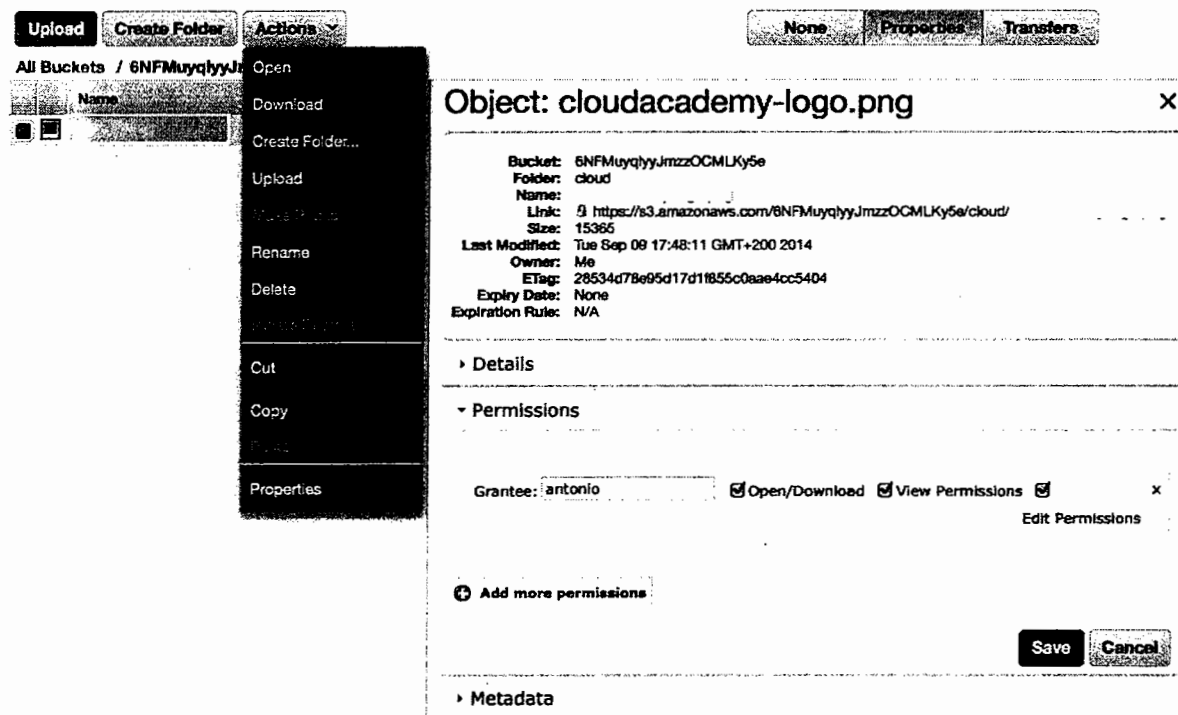
STEP 5: Set an S3 file to be publicly accessible

All uploaded files are **private** by default and they can only be viewed or edited by you.

In order to complete this lab step, you must make the uploaded vepsun-logo.png file public.

Select the *vepsun-logo.png* file

Click on the *Action* button, then select *Make Public*.



STEP 6: Change metadata of an S3 object

Each object in Amazon S3 has a set of key/value pairs representing its metadata. There are two types of metadata: "System metadata" (e.g. Content-Type and Content-Length) and custom "User metadata". User metadata is stored with the object and returned with it.

Let's change the Content-Type of our image to "text/plain"

Click on the *vepsun-logo.png* object, select the **Properties** pane and then click **Metadata**.

Select **text/plain** as the new **Content-Type** value.

Click on **Save**.

The screenshot shows the AWS S3 console interface. At the top, there are buttons for 'Upload', 'Create Folder', and 'Actions'. Below these, the breadcrumb path is 'All Buckets / 6NFMuyqlyyJmzzOCMLKy5e / cloud'. The main content area displays the object 'cloudacademy-logo.png'. To the right of the object name are tabs for 'None', 'Properties', and 'Transfers'. The 'Properties' tab is selected, showing the following details:

- Bucket: 6NFMuyqlyyJmzzOCMLKy5e
- Folder: cloud
- Name: cloudacademy-logo.png
- Link: <https://s3.amazonaws.com/6NFMuyqlyyJmzzOCMLKy5e/cloud/cloudacademy-logo.png>
- Size: 15365
- Last Modified: Tue Sep 09 17:48:11 GMT+200 2014
- Owner: Me
- ETag: 28534d78e95d17d1855c0aae4cc5404
- Expiry Date: None
- Expiration Rule: N/A

Below the details, there are expandable sections for 'Details', 'Permissions', and 'Metadata'. The 'Metadata' section is expanded, showing a table with one entry:

Key	Value
Content-Type	image/png

At the bottom of the metadata section, there are buttons for 'Add more metadata' and 'Remove selected metadata'. At the very bottom right of the console, there are 'Save' and 'Cancel' buttons.

STEP 7: Destroy an S3 bucket

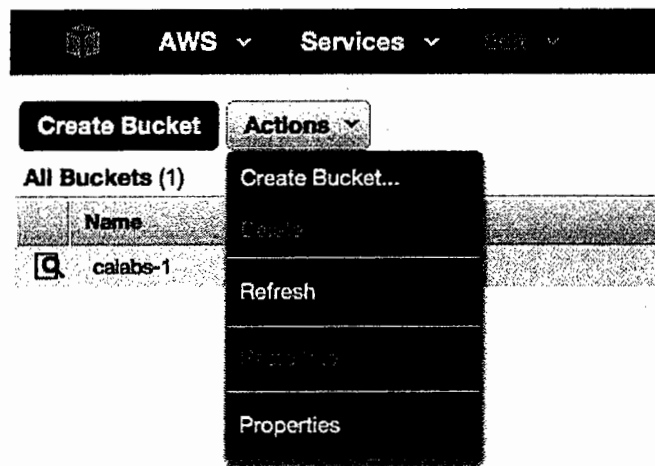
You can destroy an S3 bucket using the S3 dashboard, and all objects within the bucket will be deleted.

Select the S3 service from the Management Console dashboard:

Storage & Content Delivery



From the S3 console dashboard, select the bucket **calabs-bucket** and then click the **Actions** gray button.



Click **Delete** from the drop-down menu and then confirm the action when the confirmation popup appears.

If you receive an error message, check and see if the bucket is empty and try again.

