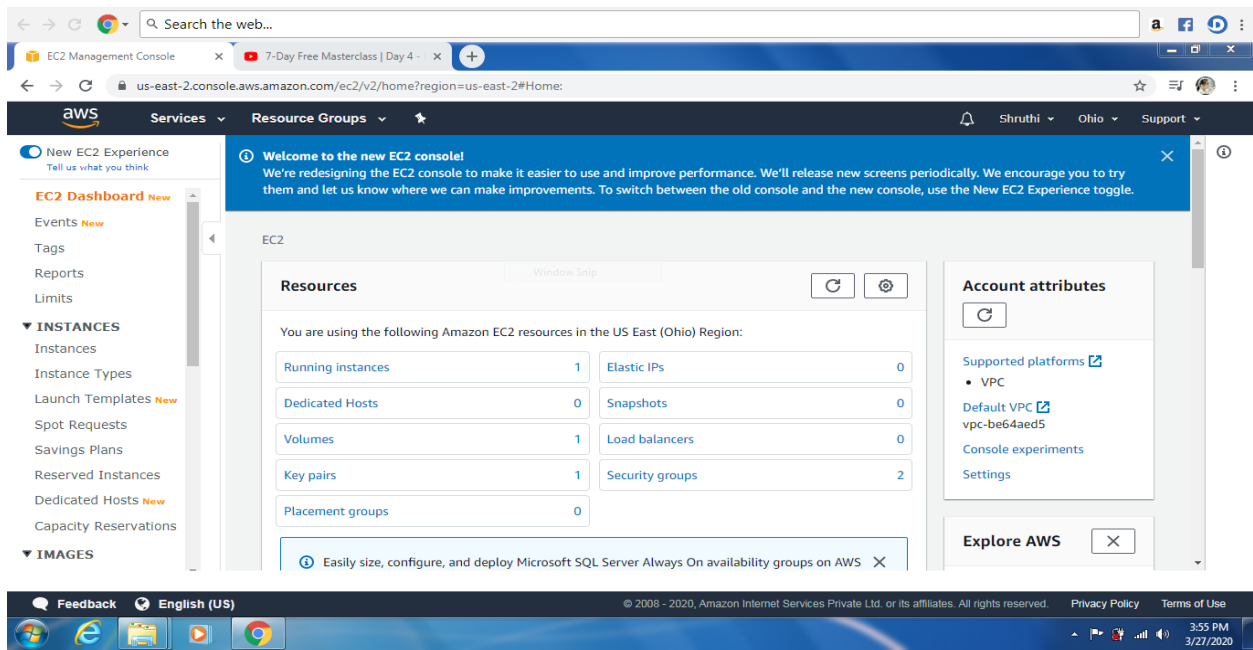
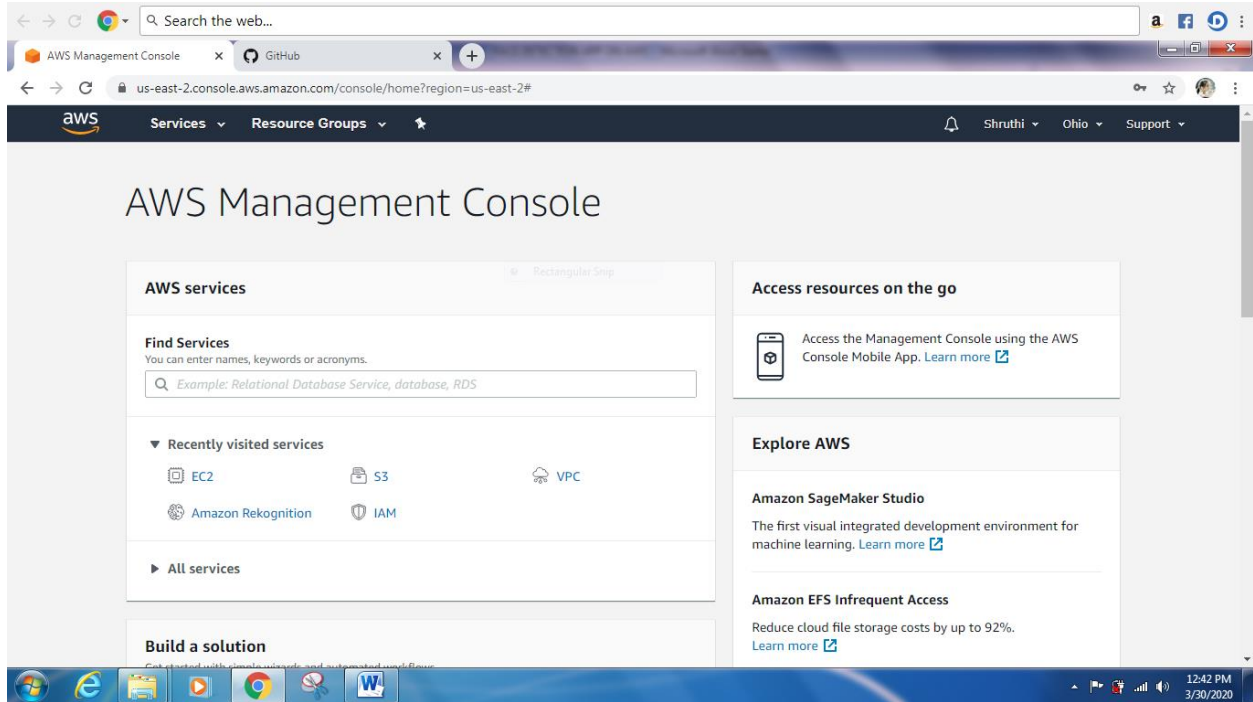


FACE DETECTION APP ON AWS

DASHBOARDS:



Search the web...

S3 Management Console x GitHub x

s3.console.aws.amazon.com/s3/home?region=us-east-2#

aws Services Resource Groups

Shruthi Global Support

Amazon S3

Buckets

Batch operations

Access analyzer for S3

Block public access (account settings)

Feature spotlight

We're gradually updating the design of the Amazon S3 console. You will notice some updated screens as we improve the performance and user interface. To help us improve the experience, [give feedback](#) on the recent updates.

Amazon S3

Buckets (1)

Copy ARN Empty Delete Create bucket

Find bucket by name

Name	Region	Access	Bucket created
my-aws-firstbucket	US East (Ohio) us-east-2	Objects can be public	2020-03-27T10:52:44.000Z

Feedback English (US)

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12:44 PM 3/30/2020

Search the web...

Recognition Console x GitHub x

us-east-2.console.aws.amazon.com/rekognition/home?region=us-east-2#

aws Services Resource Groups

Shruthi Ohio Support

Amazon Rekognition

Custom Labels New

Use Custom Labels

Demos

Object and scene detection

Image moderation

Facial analysis

Celebrity recognition

Face comparison

Text in image

Video Demos

Video analysis

Metrics

Amazon Rekognition

Deep learning-based visual analysis service

Search, verify, and organize millions of images and videos

Try Demo

Download SDKs

Easily Integrate Powerful Visual Analysis into Your App

Continuously Learning

Amazon Rekognition is designed to use

Integrated with AWS Services

Amazon Rekognition is designed to work

Feedback English (US)

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EC2:

Launch instance wizard | EC2 Ma | x 7-Day Free Masterclass | Day 4 - x +

us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#LaunchInstanceWizard:

Services Resource Groups

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 1: Choose an Amazon Machine Image (AMI) Cancel and Exit

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. You can select an AMI provided by AWS, our user community, or the AWS Marketplace; or you can select one of your own AMIs.

Search for an AMI by entering a search term e.g. "Windows"

Full-screen Snip

Quick Start

My AMIs

AWS Marketplace

Community AMIs

Free tier only

Amazon Linux 2 AMI (HVM), SSD Volume Type - ami-0e01ce4ee18447327 (64-bit x86) / ami-03201f374ab66a26e (64-bit Arm) Select

Amazon Linux 2 comes with five years support. It provides Linux kernel 4.14 tuned for optimal performance on Amazon EC2, systemd 219, GCC 7.3, Glibc 2.26, Binutils 2.29.1, and the latest software packages through extras.

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

Amazon Linux AMI 2018.03.0 (HVM), SSD Volume Type - ami-01b01bbd08f24c7a8 Select

The Amazon Linux AMI is an EBS-backed, AWS-supported image. The default image includes AWS command line tools, Python, Ruby, Perl, and Java. The repositories include Docker, PHP, MySQL, PostgreSQL, and other packages.

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Launch instance wizard | EC2 Ma | x 7-Day Free Masterclass | Day 4 - x +

us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#LaunchInstanceWizard:

Services Resource Groups

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 2: Choose an Instance Type

Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual servers that can run applications. They have varying combinations of CPU, memory, storage, and networking capacity, and give you the flexibility to choose the appropriate mix of resources for your applications. [Learn more](#) about instance types and how they can meet your computing needs.

Filter by: All instance types Current generation Show/Hide Columns

Currently selected: t2.micro (Variable ECUs, 1 vCPUs, 2.5 GHz, Intel Xeon Family, 1 GiB memory, EBS only)

	Family	Type	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance	IPv6 Support
<input type="checkbox"/>	General purpose	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
<input checked="" type="checkbox"/>	General purpose	t2.micro Free tier eligible	1	1	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.small	1	2	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.medium	2	4	EBS only	-	Low to Moderate	Yes

Cancel Previous **Review and Launch** Next: Configure Instance Details

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Launch instance wizard | EC2 Ma x 7-Day Free Masterclass | Day 4 - x

us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#LaunchInstanceWizard:

aws Services Resource Groups

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 4: Add Storage

Your instance will be launched with the following storage device settings. You can attach additional EBS volumes and instance store volumes to your instance, or edit the settings of the root volume. You can also attach additional EBS volumes after launching an instance, but not instance store volumes. [Learn more](#) about storage options in Amazon EC2.

Volume Type	Device	Snapshot	Size (GiB)	Volume Type	IOPS	Throughput (MB/s)	Delete on Termination	Encryption
Root	/dev/xvda	snap-0f54692056aaa4c20	8	General Purpose SSD (gp2)	100 / 3000	N/A	<input checked="" type="checkbox"/>	Not Encrypt

Add New Volume

Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage. [Learn more](#) about free usage tier eligibility and usage restrictions.

Cancel Previous Review and Launch Next: Add Tags

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Launch instance wizard | EC2 Ma x 7-Day Free Masterclass | Day 4 - x

us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#LaunchInstanceWizard:

aws Services Resource Groups

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 6: Configure Security Group

A security group is a set of firewall rules that control the traffic for your instance. On this page, you can add rules to allow specific traffic to reach your instance. For example, if you want to set up a web server and allow Internet traffic to reach your instance, add rules that allow unrestricted access to the HTTP and HTTPS ports. You can create a new security group or select from an existing one below. [Learn more](#) about Amazon EC2 security groups.

Assign a security group: ☒ Create a new security group ☐ Select an existing security group

Security group name: launch-wizard-2

Description: launch-wizard-2 created 2020-03-27T15:59:23.720+05:30

Type	Protocol	Port Range	Source	Description
SSH	TCP	22	Custom 0.0.0.0/0	e.g. SSH for Admin Desktop

Add Rule

Warning
Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

Cancel Previous Review and Launch

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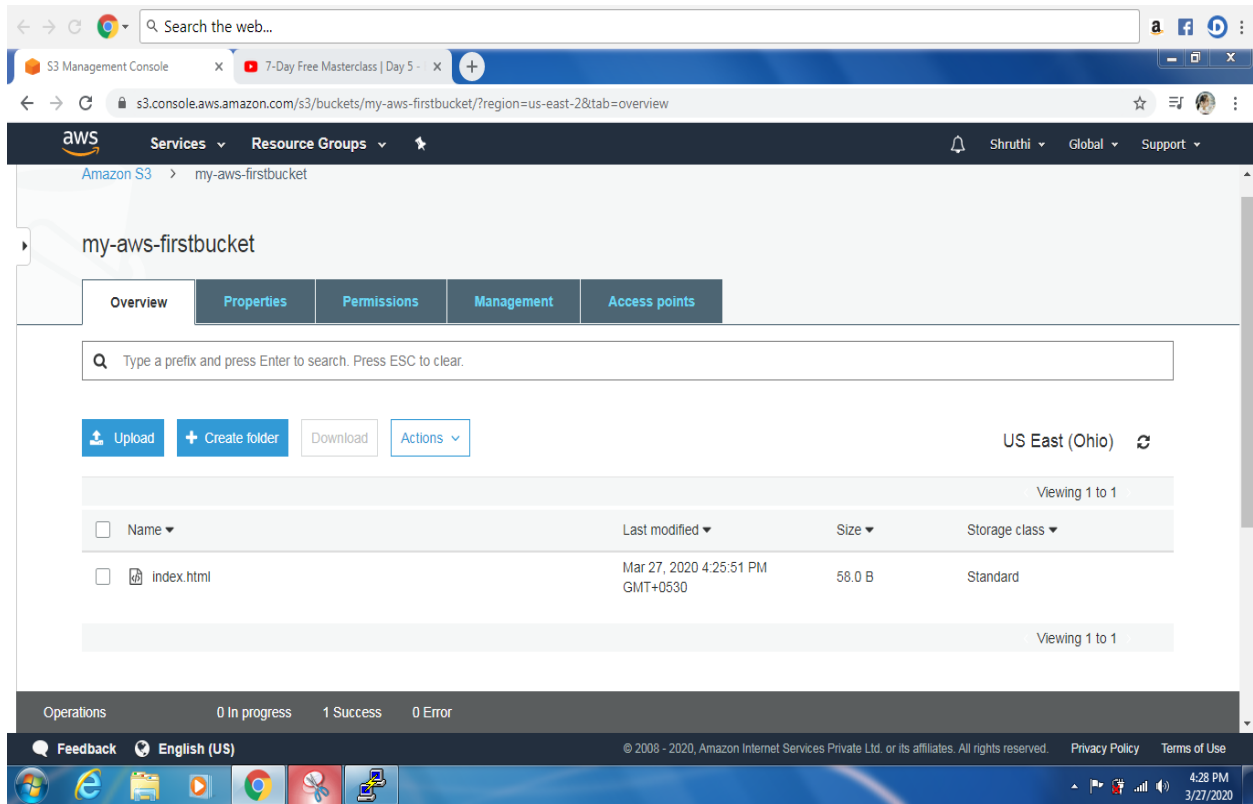
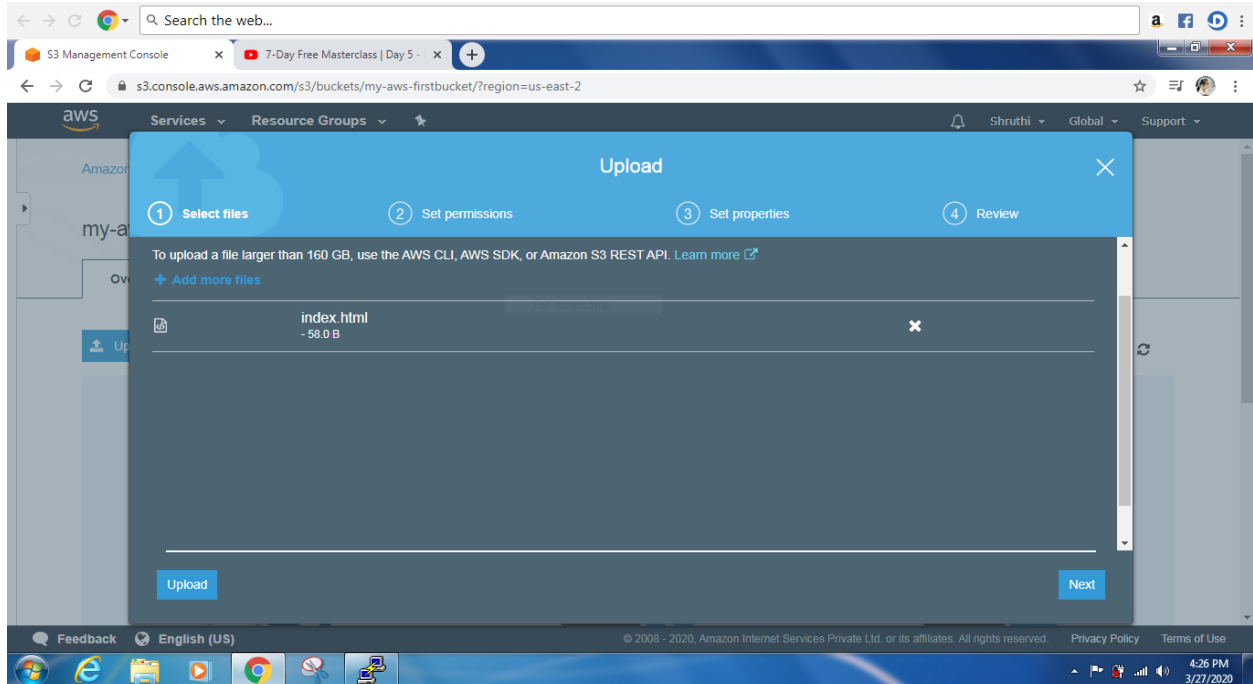

```
ec2-user@ip-172-31-37-194:~
login as: ec2-user
Authenticating with public key "imported-openssh-key"
Last login: Thu Mar 26 14:37:10 2020 from 43.241.120.82

  _I_  _I_  )
 _I_  ( _I_ /   Amazon Linux 2 AMI
  _I_ \ _I_  _I_

https://aws.amazon.com/amazon-linux-2/
1 package(s) needed for security, out of 7 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-37-194 ~]$
```

S3 (Simple Storage Service):

The screenshot shows the AWS Management Console interface for creating a new S3 bucket. The top navigation bar includes the AWS logo, 'Services', 'Resource Groups', and user information. The main heading is 'Create bucket'. Under the 'General configuration' section, the 'Bucket name' field contains 'my-aws-firstbucket' and the 'Region' dropdown is set to 'US East (Ohio) us-east-2'. A 'Snipping Tool' window is open over the bucket name field. Below this, the 'Bucket settings for Block Public Access' section is visible, with the 'Block all public access' checkbox checked. The console also includes a help link for bucket naming rules and a 'Learn more' link for public access settings.



Static website hosting

Endpoint : `http://my-aws-firstbucket.s3-website-us-east-2.amazonaws.com`

☒ Use this bucket to host a website [Learn more](#)

Index document [i](#)

`index.html`

Error document [i](#)

`error.html`

Redirection rules (optional) [i](#)

☐ Redirect requests [Learn more](#)

☐ Disable website hosting

Search the web...

S3 Management Console

403 Forbidden

7-Day Free Masterclass | Day 5

s3.console.aws.amazon.com/s3/buckets/my-aws-firstbucket?region=us-east-2&tab=permissions

aws

Services

Resource Groups

Shruthi

Global

Support

Block public access

Access Control List

Bucket Policy

CORS configuration

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

Feedback

English (US)

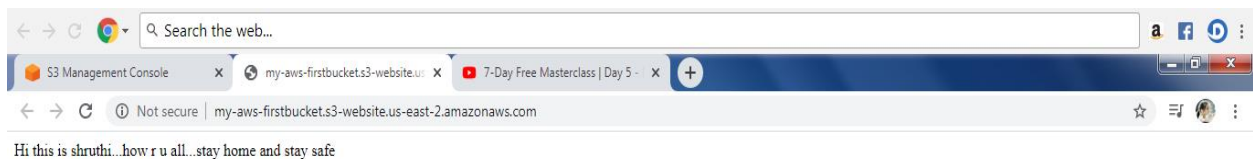
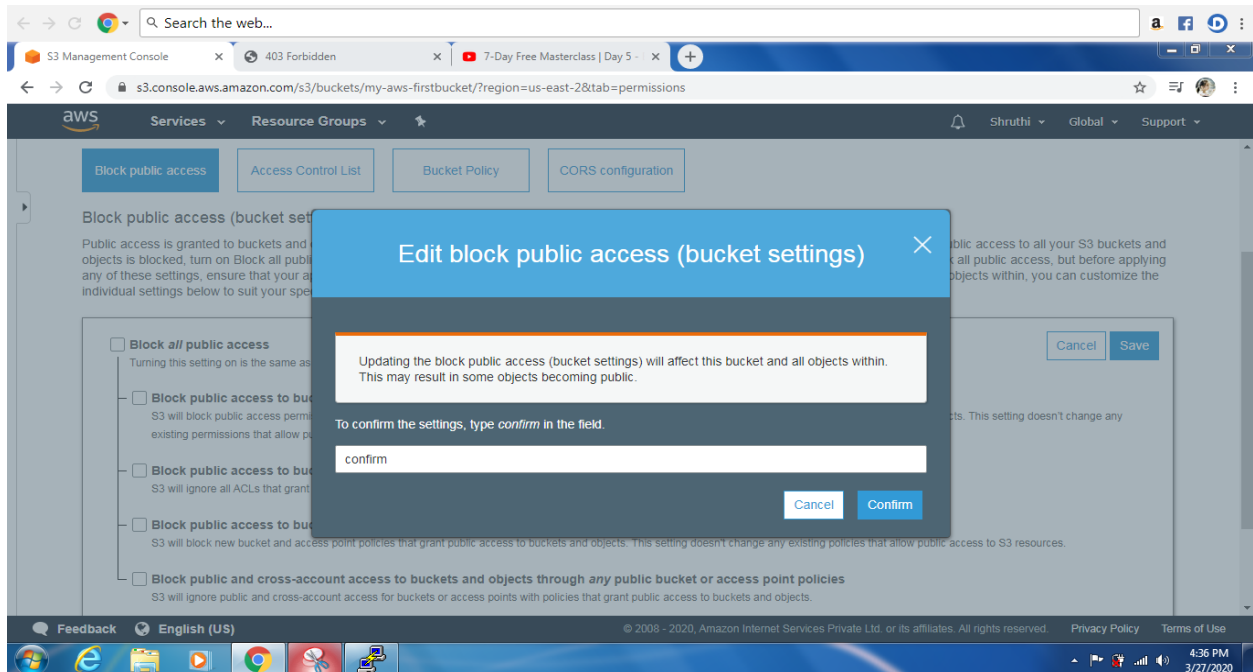
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3/27/2020



AWS REKOGNITION:


us-east-2.console.aws.amazon.com/rekognition/home?region=us-east-2#/face-detection

Amazon Rekognition

- Custom Labels ^{New}
- Use Custom Labels
- Demos
 - Object and scene detection
 - Image moderation
 - Facial analysis**
 - Celebrity recognition
 - Face comparison
 - Text in image
- Video Demos
- Video analysis
- Metrics
- Metrics

Facial analysis

Get a complete analysis of facial attributes, including confidence scores.



Choose a sample image Use your own image
Image must be .jpg or .png format and no larger than 5MB. Your image isn't stored.

Done with the demo? [Learn more](#)

▼ Results

looks like a face	99.9 %
appears to be female	99.9 %
age range	17 - 29 years old
smiling	91.7 %
appears to be happy	99.5 %
wearing glasses	99.8 %

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4:15 PM 3/31/2020

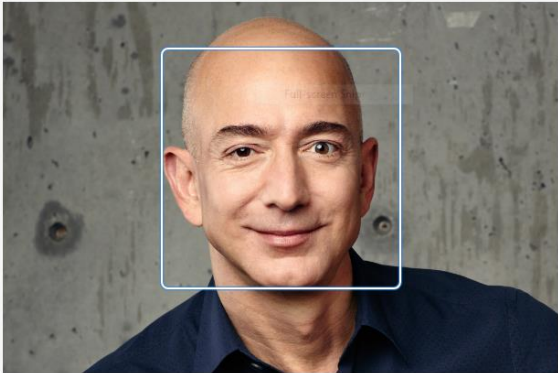
us-east-2.console.aws.amazon.com/rekognition/home?region=us-east-2#/celebrity-detection

Amazon Rekognition

- Custom Labels ^{New}
- Use Custom Labels
- Demos
 - Object and scene detection
 - Image moderation
 - Facial analysis
 - Celebrity recognition**
 - Face comparison
 - Text in image
- Video Demos
- Video analysis
- Metrics
- Metrics

Celebrity recognition


Rekognition automatically recognizes celebrities in images and provides confidence scores.



Choose a sample image Use your own image
Image must be .jpg or .png format and no larger than 5MB. Your image isn't stored.

Done with the demo? [Learn more](#)

▼ Results

 Jeff Bezos Learn More	
Match confidence	100 %

► Request

► Response

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Search the web...

Rekognition Console x GitHub x 3.133.88.16/face/index.php x AWS Project Submission Guide x Downloads x

us-east-2.console.aws.amazon.com/rekognition/home?region=us-east-2#/face-comparison


aws Services Resource Groups

Shruthi Ohio Support



Face comparison

Compare faces to see how closely they match based on a similarity percentage.


Reference face





Choose a sample image

Comparison faces





Choose a sample image








Done with the demo? [Learn more](#)

Results


=


Similarity 99.8 %


≠



≠


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Search the web...

Rekognition Console x GitHub x 3.133.88.16/face/index.php x AWS Project Submission Guide x Downloads x

us-east-2.console.aws.amazon.com/rekognition/home?region=us-east-2#/text-detection



aws Services Resource Groups

Shruthi Ohio Support

Text in image

Rekognition automatically detects and extracts text in your images. [Learn More](#)

Choose a sample image

Upload or drag and drop

Use your own image

Image must be .jpeg or .png format and no larger than 5MB. Your image isn't stored.

Request

Done with the demo? [Learn more](#)

Results US English only

```

| X |
| ec2-user@ip-172-31-37-194:~ |
| login | as: | ec2-user |
| Authenticating | with | public | key |
| "imported-openssh-key" |
| Last | login: | Thu | Mar | 26 | 14:37:10 | 2020 | |
| from | 43.241.120.82 |
| Amazon | Linux | 2 | AML |
| https://aws.amazon.com/amazon-linux-2 | amazon |
| 1 | package(s) | needed | for | security | out | of | 7 |
| available | Rectangular Snip |
| Run | nsudo | all |
| yum | update | to | apply | updates. |
| [ec2-user@ip-172-31-37-194 ~]$

```

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EC2 & S3:

```
[ec2-user@ip-172-31-37-194 html]$ sudo php -d memory_limit=-1 ~/composer.phar require aws/aws-sdk-php
Using version ^3.133 for aws/aws-sdk-php
./composer.json has been created
Loading composer repositories with package information
Updating dependencies (including require-dev)
Package operations: 8 installs, 0 updates, 0 removals
 - Installing symfony/polyfill-mbstring (v1.15.0): Loading from cache
 - Installing mtdowling/jmespath.php (2.5.0): Loading from cache
 - Installing guzzlehttp/promises (v1.3.1): Loading from cache
 - Installing ralouphie/getallheaders (3.0.3): Loading from cache
 - Installing psr/http-message (1.0.1): Loading from cache
 - Installing guzzlehttp/psr7 (1.6.1): Loading from cache
 - Installing guzzlehttp/guzzle (6.5.2): Loading from cache
 - Installing aws/aws-sdk-php (3.133.47): Downloading (100%)
guzzlehttp/psr7 suggests installing zendframework/zend-httpdierrunner (Emit PSR-7 responses)
guzzlehttp/guzzle suggests installing psr/log (Required for using the Log middleware)
guzzlehttp/guzzle suggests installing ext-intl (Required for Internationalized Domain Name (IDN) support)
aws/aws-sdk-php suggests installing doctrine/cache (To use the DoctrineCacheAdapter)
aws/aws-sdk-php suggests installing aws/aws-php-sns-message-validator (To validate incoming SNS notifications)
Writing lock file
Generating autoload files
1 package you are using is looking for funding.
Use the 'composer fund' command to find out more!
[ec2-user@ip-172-31-37-194 html]$
```

```
ec2-user@ip-172-31-37-194~
login as: ec2-user
Authenticating with public key "imported-openssh-key"
Last login: Mon Mar 30 07:23:12 2020 from 43.241.120.82

 _ _ | _ _ |
 _ | ( _ _ | /
 _ | \ _ _ | _ |

Amazon Linux 2 AMI

https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-172-31-37-194 ~]$ sudo yum install php
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
amzn2-core | 2.4 kB 00:00
amzn2extra-docker | 1.8 kB 00:00
amzn2extra-php7.2 | 1.8 kB 00:00
Resolving Dependencies
--> Running transaction check
--> Package php.x86_64 0:7.2.28-1.amzn2 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

=====
Package Arch Version Repository Size
=====
Installing:
php x86_64 7.2.28-1.amzn2 amzn2extra-php7.2 2.9 M
Transaction Summary
=====
Install 1 Package

Total download size: 2.9 M
Installed size: 9.1 M
Is this ok [y/d/N]:
Your transaction was saved, rerun it with:
yum load-transaction /tmp/yum_save_tx.2020-03-31.10-50.R13NT2.yumtx
[ec2-user@ip-172-31-37-194 ~]$
```

```
index - Notepad
File Edit Format View Help

<?php
/*install php - sudo yum install php
curl -sS https://getcomposer.org/installer | php
cd /var/www/html
sudo mkdir face
cd face
sudo php -d memory_limit=1 ~/composer.phar require aws/aws-sdk-php
In case if you get memory error - sudo /bin/dd if=/dev/zero of=/var/swap.1 bs=1M count=1024
sudo /sbin/mkswap /var/swap.1
sudo /sbin/swapoff /var/swap.1
sudo /sbin/swap on
sudo mv b97ea33b5842c7894b804923c6c05580.jpg sample.jpg*/
error_reporting(0);
require_once(__DIR__ . '/vendor/autoload.php');
use Aws\S3\S3Client;
use Aws\Rekognition\RekognitionClient;
$bucket = 'my-aws-firstbucket';
$keyname = 's.jpg';
$s3 = S3Client::factory(
    [
        'profile' => 'default',
        'region' => 'us-east-2',
        'version' => '2006-03-01',
        'signature' => 'v4'];
    );
try
{
    // upload data. $result = $s3->putObject
    [
        'Bucket' => $bucket,
        'Key' => $keyname,
        'SourceFile' => __DIR__ . "/" . $keyname,
        'ACL' => 'public-read'
    ];
    // Print the URL to the object.
    $imageUrl = $result['objectURL'];
    if($imageUrl)
    {
        echo "Image upload done... Here is the URL: " . $imageUrl;
    }
}
catch (Exception $e)
{
    echo $e->getMessage() . PHP_EOL;
}
```

```
ec2-user@ip-172-31-37-194:/var/www/html/face

[ec2-user@ip-172-31-37-194 face]$ pwd
/var/www/html/face
[ec2-user@ip-172-31-37-194 face]$ ls
composer.json  face      shru.jpg  tele.php
composer.lock  index.php s.jpg     vendor
[ec2-user@ip-172-31-37-194 face]$ sudo vim index.php
[ec2-user@ip-172-31-37-194 face]$ sudo php index.php
Image upload done... Here is the URL: https://my-aws-firstbucket.s3.us-east-2.am
[ec2-user@ip-172-31-37-194 face]$
```

EC2 & REKOGNITION:

```
[ec2-user@ip-172-31-37-194 face]$ cd /var/www/html/face
[ec2-user@ip-172-31-37-194 face]$ pwd
/var/www/html/face
[ec2-user@ip-172-31-37-194 face]$ ls
composer.json  composer.lock  face  index.php  shru.jpg  s.jpg  tele.php  vendor
[ec2-user@ip-172-31-37-194 face]$ sudo php -d memory_limit=-1 ~/composer.phar require aws/aws-sdk-php
Using version ^3.133 for aws/aws-sdk-php
./composer.json has been updated
Loading composer repositories with package information
Updating dependencies (including require-dev)
Package operations: 0 installs, 1 update, 0 removals
  - Updating aws/aws-sdk-php (3.133.46 => 3.133.47): Loading from cache
Package guzzle/guzzle is abandoned, you should avoid using it. Use guzzlehttp/guzzle instead.
Writing lock file
Generating autoload files
1 package you are using is looking for funding.
Use the `composer fund` command to find out more!
[ec2-user@ip-172-31-37-194 face]$
[ec2-user@ip-172-31-37-194 face]$ sudo vim index.php
[ec2-user@ip-172-31-37-194 face]$ sudo php index.php
Image upload done... Here is the URL: https://my-aws-firstbucket.s3.us-east-2.amazonaws.com/s.jpgTotally there are 9 faces[ec2-user@ip-172-31-37-194 face]$
```