

FACE DETECTION USING AMAZON WEB SERVICES

7-Day Masterclass Webinars
by
Ethnus

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Screenshots of the Project

Dashboards

1.AWS login screen with username

2. EC2 Dashboard

The screenshot displays the AWS EC2 Management Console. At the top, a blue banner welcomes users to the new EC2 console. The left sidebar contains navigation links for EC2 Dashboard, Events, Tags, Reports, Limits, INSTANCES (Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations), IMAGES (AMIs, Bundle Tasks), and ELASTIC BLOCK STORE (Volumes, Snapshots). The main content area shows the 'Resources' section for the US East (Ohio) Region, listing counts for Running instances (1), Elastic IPs (0), Dedicated Hosts (0), Snapshots (0), Volumes (1), Load balancers (0), Key pairs (1), Security groups (2), and Placement groups (0). Below this is a 'Launch instance' button and a 'Service health' section. The right sidebar includes 'Account attributes' (Supported platforms, Default VPC, Console experiments, Settings) and 'Explore AWS' (Easily launch third-party AMI products, Activate Windows). The footer contains a Feedback link, language selection (English (US)), and copyright information.

EC2 Management Console

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

Services Resource Groups

New EC2 Experience

EC2 Dashboard

Events

Tags

Reports

Limits

INSTANCES

Instances

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances

Dedicated Hosts

Capacity Reservations

IMAGES

AMIs

Bundle Tasks

ELASTIC BLOCK STORE

Volumes

Snapshots

Welcome to the new EC2 console!

You're redesigning the EC2 console to make it easier to use and improve performance. We'll release new screens periodically. We encourage you to try them and let us know where we can make improvements. To switch between the old console and the new console, use the New EC2 Experience toggle.

EC2

Resources

You are using the following Amazon EC2 resources in the US East (Ohio) Region:

Running instances	1	Elastic IPs	0
Dedicated Hosts	0	Snapshots	0
Volumes	1	Load balancers	0
Key pairs	1	Security groups	2
Placement groups	0		

Easily size, configure, and deploy Microsoft SQL Server Always On availability groups on AWS using the AWS Launch Wizard for SQL Server. Learn more

Launch instance

Service health

Service Health Dashboard

Account attributes

Supported platforms

- VPC

Default VPC

vpc-5b2aff30

Console experiments

Settings

Explore AWS

Easily launch third-party AMI products

AWS Marketplace has thousands of third-party AMI products that you can find, buy, and deploy with 1-click using the Amazon EC2 console. Learn more

Activate Windows

Go to Settings to activate Windows.

Feedback English (US)

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3. S3 Dashboard

4. Rekognition Dashboard

The screenshot shows the Amazon Rekognition Console interface. The top navigation bar includes the AWS logo, 'Services', 'Resource Groups', and user information 'HimavamsiG' with a dropdown menu for 'Ohio' and 'Support'. The left sidebar lists various features: 'Amazon Rekognition', 'Custom Labels' (with a 'New' tag), 'Use Custom Labels', 'Demos', 'Object and scene detection', 'Image moderation', 'Facial analysis', 'Celebrity recognition', 'Face comparison', 'Text in image', 'Video Demos', 'Video analysis', 'Metrics', and 'Additional Resources' (including 'Getting started guide' and 'Download SDKs'). The main content area features a large hero section with the title 'Amazon Rekognition' and the subtitle 'Deep learning-based visual analysis service. Search, verify, and organize millions of images and videos'. It includes 'Try Demo' and 'Download SDKs' buttons. Below this are three columns: 'Easily Integrate Powerful Visual Analysis into Your App' (with a stack of layers icon), 'Continuously Learning' (with a circuit icon), and 'Integrated with AWS Services' (with a puzzle piece icon). Each column contains a brief description of the service's capabilities. The footer includes a 'Feedback' button, 'English (US)' language selector, and copyright information: '© 2008 - 2020, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved.' along with 'Privacy Policy' and 'Terms of Use' links.

Rekognition Console

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

aws Services Resource Groups HimavamsiG Ohio Support

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

You don't need computer vision or deep learning expertise to take advantage of Rekognition's high quality image and video analysis for your web, mobile, enterprise or device applications. Amazon Rekognition removes the complexity of building visual recognition capabilities by making powerful and accurate analysis available with easy to use

Continuously Learning

Amazon Rekognition is designed to use deep learning technology to analyze billions of images and videos daily. It is continuously learning as we add support for new capabilities and learn from more and more data.

Integrated with AWS Services

Amazon Rekognition is designed to work seamlessly with other AWS services. Rekognition integrates directly with Amazon S3 and AWS Lambda so you can build scalable, affordable, and reliable visual analysis applications. You can start analyzing images and videos stored in Amazon S3 without moving any data. You can also run real-time video analysis on streams coming from windows.

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Screenshots for EC2

- 1.
2. Choosing an AMI

2. Choosing an Instance type

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 <small>Free tier eligible</small>	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
<input type="checkbox"/>	General purpose	t2.large	2	8	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.xlarge	4	16	EBS only	-	Moderate	Yes
<input type="checkbox"/>	General purpose	t2.2xlarge	8	32	EBS only	-	Moderate	Yes
<input type="checkbox"/>	General purpose	t3a.nano	2	0.5	EBS only	Yes	Up to 5 Gigabit	Yes

[Cancel](#) [Previous](#) [Review and Launch](#) [Next: Configure Instance Details](#)

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3. Adding Storage

Launch instance wizard | EC2 Ma x

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

aws

Services Resource Groups

HimavamsiG Ohio Support

1. Choose AMI2. Choose Instance Type3. Configure Instance4. Add Storage5. Add Tags6. Configure Security Group7. 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 Encrypted

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.

CancelPreviousReview and LaunchNext: Add Tags

Go to settings to activate Windows.

FeedbackEnglish (US)

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4. Configuring Security Group

Launch instance wizard | EC2 Ma 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 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:

Description:

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

Go to Settings to activate Windows

Feedback English (US)

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5. Key Pair Download

Launch instance wizard | EC2 Ma 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 7: Review Instance Launch

Please review your instance launch details. You can go back to edit changes for each section. Click Launch to assign a key pair to your instance and complete the launch process.

Improve your instances' security. Your instances may be accessible from any IP address. You can also open additional ports in your security groups.

AMI Details

Amazon Linux 2 AMI (HVM), SSD Volume

Free tier eligible

Root Device Type: ebs Virtualization type: hvm

Instance Type

Instance Type	ECUs	vCPUs
t2.micro	Variable	1

Security Groups

Security group name	Description
launch-wizard-2	launch-wizard-2 created 2020-04-02T12:24:59.121+05:30

Select an existing key pair or create a new key pair

A key pair consists of a **public key** that AWS stores, and a **private key file** that you store. Together, they allow you to connect to your instance securely. For Windows AMIs, the private key file is required to obtain the password used to log into your instance. For Linux AMIs, the private key file allows you to securely SSH into your instance.

Note: The selected key pair will be added to the set of keys authorized for this instance. Learn more about [removing existing key pairs from a public AMI](#).

Create a new key pair

Key pair name

aws-face

Download Key Pair

You have to download the **private key file** (*.pem file) before you can continue. Store it in a **secure and accessible** location. You will not be able to download the file again after it's created.

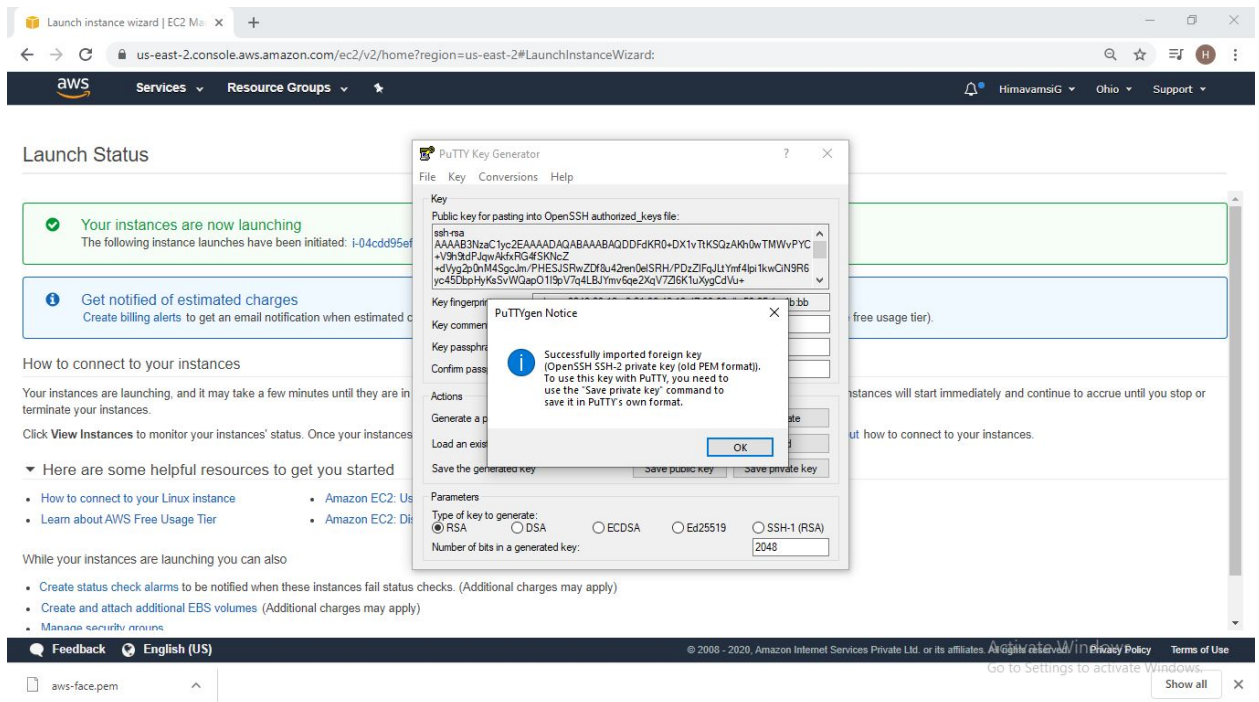
Cancel Launch Instances

Cancel Previous Launch

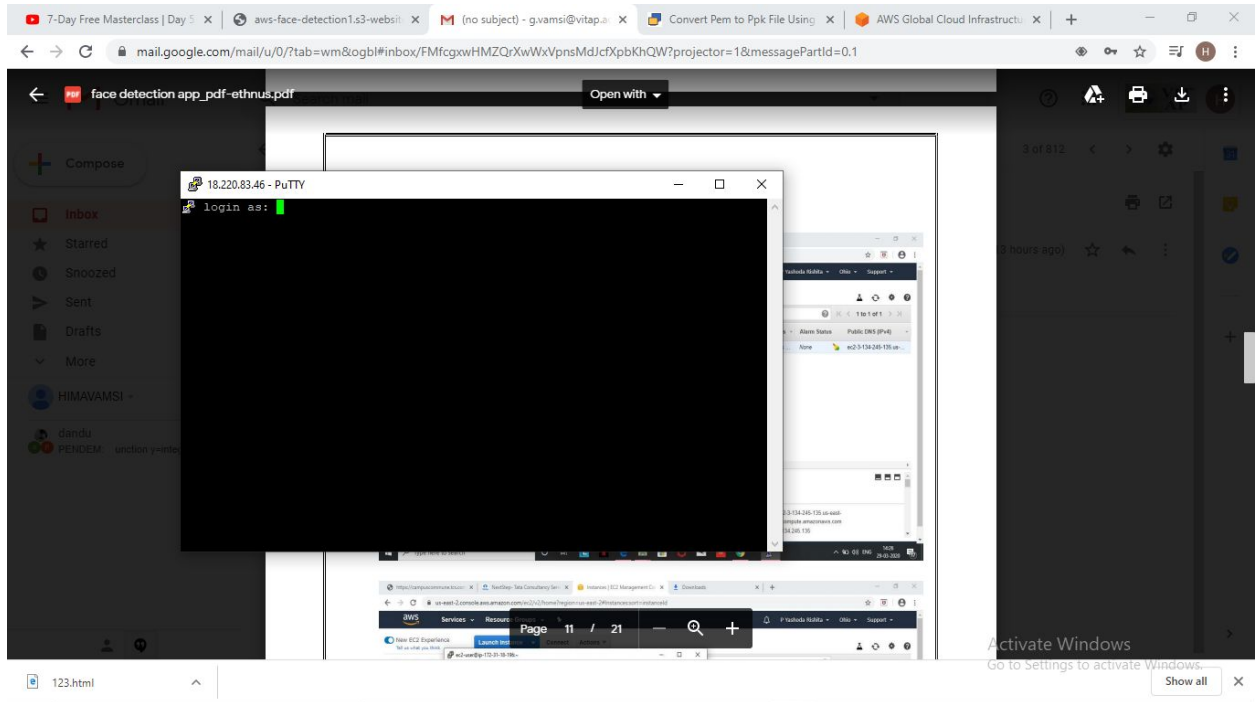
Feedback English (US)

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6. puTTYgen conversion from .pem to .ppk



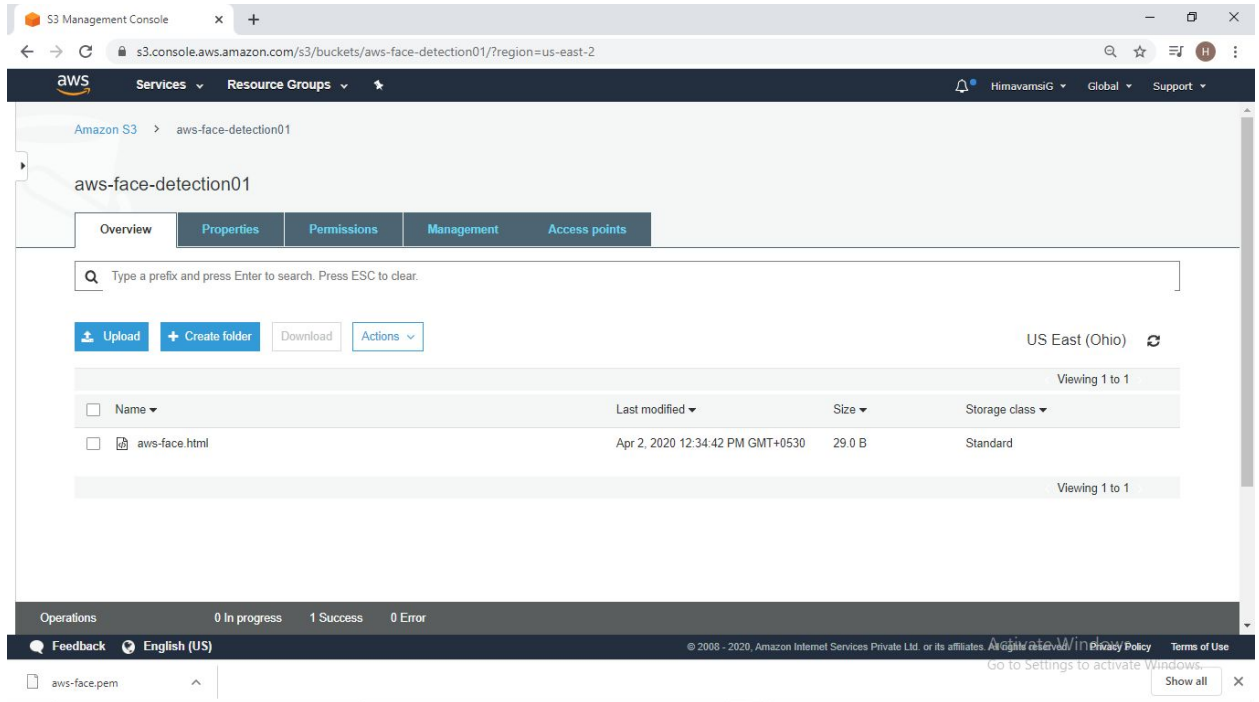
7. Logged into EC2



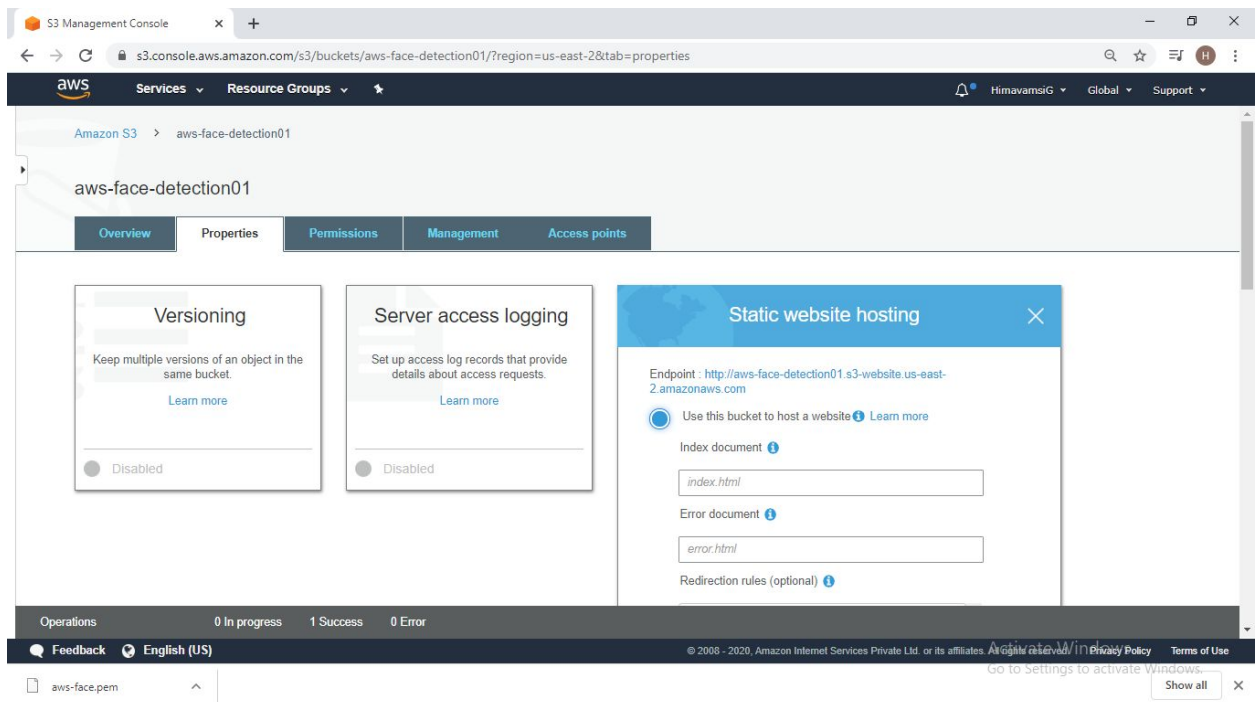
Screenshots for S3

1. Creating a Bucket

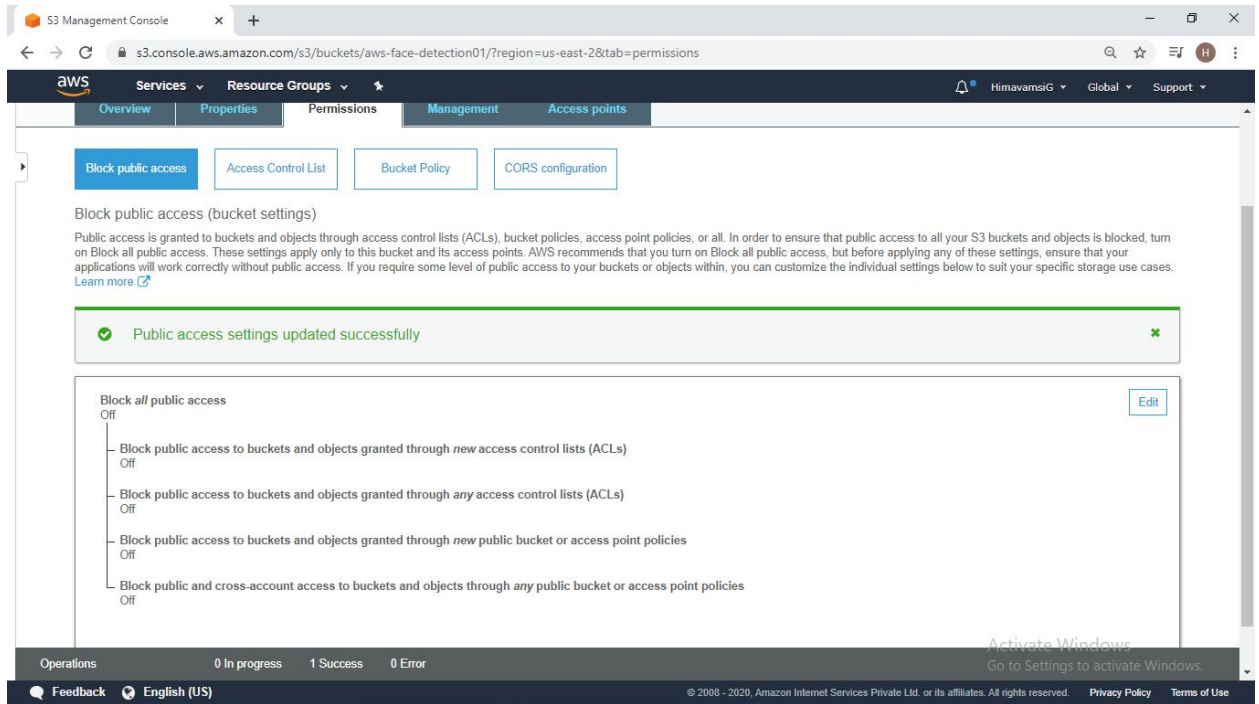
2. Uploading an Object



3. Enabling Static Website



4. Removing Block Public Access(Making Bucket Public)



5. Checking the S3 link on the browser

Screenshots for Rekognition

1. Face Detection

The screenshot displays the AWS Rekognition Console's 'Facial analysis' page. The left sidebar contains navigation links for Amazon Rekognition, Custom Labels, Demos, Image moderation, Facial analysis (highlighted), Celebrity recognition, Face comparison, Text in image, Video Demos, Video analysis, Metrics, and Additional Resources. The main content area features a large image of a man with glasses, with a blue bounding box around his face. Below this image are options to 'Choose a sample image' or 'Use your own image'. The 'Use your own image' section includes an 'Upload' button and a text input for 'Use image URL'. On the right, the 'Results' panel shows a list of facial attributes and their confidence scores. At the bottom right, there is an 'Activate Windows' watermark.

Attribute	Confidence Score
looks like a face	99.9 %
appears to be male	99.4 %
age range	24 - 38 years old
not smiling	98.4 %
appears to be angry	53.1 %
wearing glasses	99.9 %

2. Face comparison

3. Celebrity Recognition

4. Text in image

The screenshot displays the AWS Rekognition Console interface. The central image is a movie poster for 'El Profesor' (The Professor), featuring a man in a suit holding a mask, with several hooded figures in the background. The poster includes the text 'EL PROFESOR' at the top, 'LA CASA DE PAPEL' at the bottom left, and '15 JULIO NETFLIX' at the bottom right. The left sidebar lists various services, with 'Text in image' selected. The right panel shows the 'Results' section, which contains the following text extracted from the image:

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

Results

US English only

ELPROFESOR |
UNA | SERIE | ORIGINAL | DE | NETFLIX |
LA | CASA |
DE | PAPEL |
PARTE | 3 |
19 | JULIO | 1 | NETFLIX |

Request

Response

Activate Windows
Go to Settings to activate Windows.

Feedback English (US)

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2. Installing php

```
ec2-user@ip-172-31-38-173:~  
=====
```

Package	Arch	Version	Repository	Size
Installing:				
php	x86_64	5.4.16-46.amzn2.0.2	amzn2-core	1.4 M
Installing for dependencies:				
libzip010-compat	x86_64	0.10.1-9.amzn2.0.5	amzn2-core	30 k
php-cli	x86_64	5.4.16-46.amzn2.0.2	amzn2-core	2.8 M
php-common	x86_64	5.4.16-46.amzn2.0.2	amzn2-core	563 k

```
=====
```

Transaction Summary

Install 1 Package (+3 Dependent packages)

Total download size: 4.7 M
Installed size: 17 M
Is this ok [y/d/N]: y

Downloading Packages:

(1/4): libzip010-compat-0.10.1-9.amzn2.0.5.x86_64.rpm	30 kB	00:00:00	
(2/4): php-5.4.16-46.amzn2.0.2.x86_64.rpm	1.4 MB	00:00:00	
(3/4): php-common-5.4.16-46.amzn2.0.2.x86_64.rpm	563 kB	00:00:00	
(4/4): php-cli-5.4.16-46.amzn2.0.2.x86_64.rpm	2.8 MB	00:00:00	

Total 22 MB/s | 4.7 MB 00:00:00

Running transaction check
Running transaction test
Transaction test succeeded
Running transaction

Installing : libzip010-compat-0.10.1-9.amzn2.0.5.x86_64	1/4	
Installing : php-common-5.4.16-46.amzn2.0.2.x86_64	2/4	
Installing : php-cli-5.4.16-46.amzn2.0.2.x86_64	3/4	
Installing : php-5.4.16-46.amzn2.0.2.x86_64	4/4	
Verifying : php-5.4.16-46.amzn2.0.2.x86_64	1/4	
Verifying : libzip010-compat-0.10.1-9.amzn2.0.5.x86_64	2/4	
Verifying : php-cli-5.4.16-46.amzn2.0.2.x86_64	3/4	
Verifying : php-common-5.4.16-46.amzn2.0.2.x86_64	4/4	

Installed:

php.x86_64 0:5.4.16-46.amzn2.0.2

Dependency Installed:

libzip010-compat.x86_64 0:0.10.1-9.amzn2.0.5	php-cli.x86_64 0:5.4.16-46.amzn2.0.2	php-common.x86_64 0:5.4.16-46.amzn2.0.2	

Complete!
[ec2-user@ip-172-31-38-173 ~]\$

3. Index.php file code

```
ec2-user@ip-172-31-38-173:~  
require_once(__DIR__ . '/vendor/autoload.php');  
  
use Aws\S3\S3Client;  
use Aws\Rekognition\RekognitionClient;  
  
$bucket = 'aws-face-detection01';  
$keyname = 'moneyheist.jpg';  
  
$s3 = new S3Client([  
    '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-write'  
    ]);  
  
    // Print the URL to the object.  
    $imageUrl = $result['ObjectURL'];  
    if($imageUrl) {  
        echo "Image upload done... Here is the URL: " . $imageUrl;  
  
        $rekognition = new RekognitionClient([  
            'region' => 'us-east-2',  
            'version' => 'latest',  
        ]);  
  
        $result = $rekognition->detectFaces([  
            'Attributes' => ['DEFAULT'],  
            'Image' => [  
                'S3Object' => [  
                    'Bucket' => $bucket,  
                    'Name' => $keyname,  
                    'Key' => $keyname,  
                ],  
            ],  
        ]);  
    }  
}
```

4. Upload success screenshot

-THE END-