

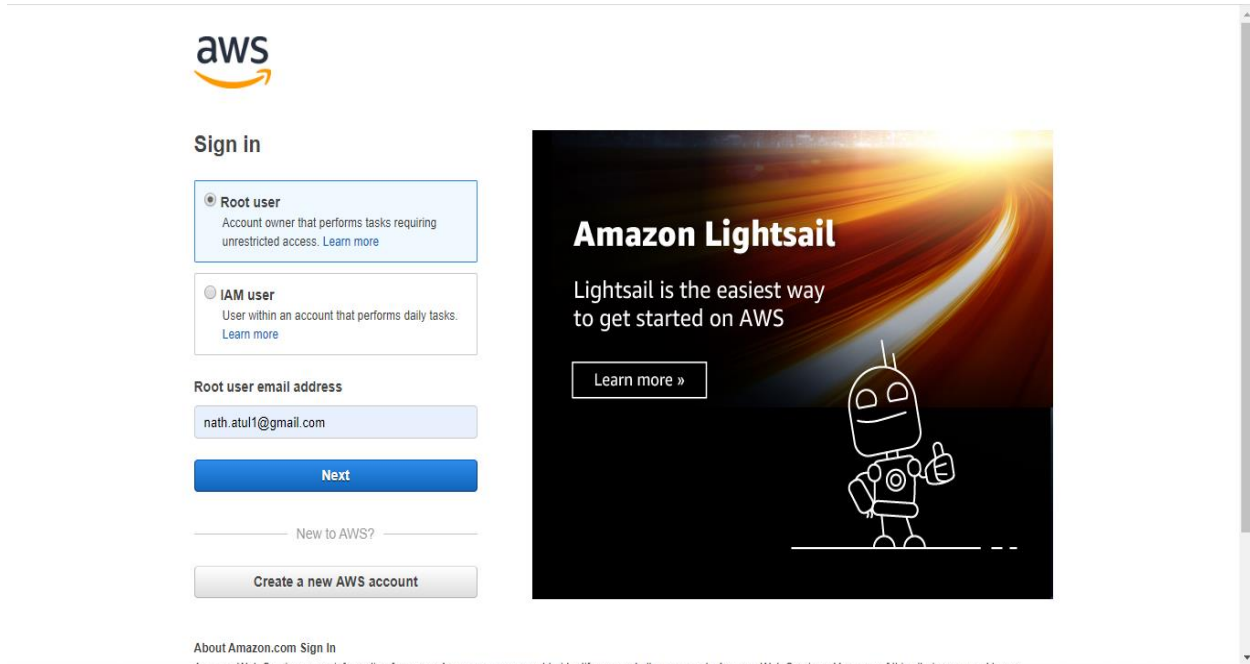
AWS Rekognition

Name: Atul Nath

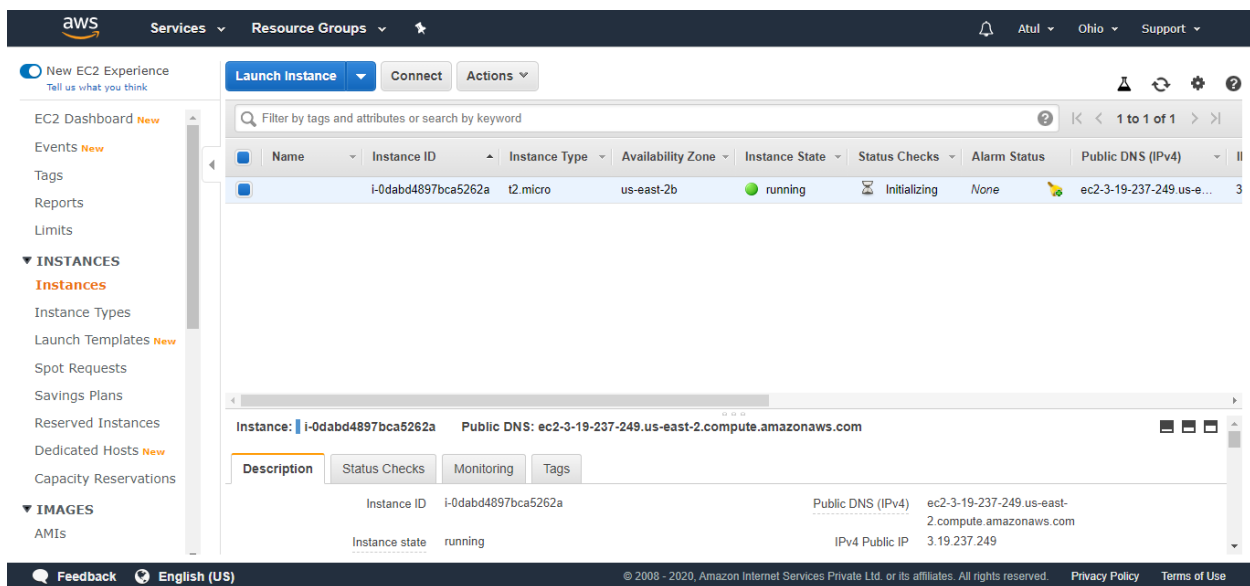
College: VIT University, Vellore

(1) SCREENSHOTS FOR DASHBOARD

*AWS Login Screen With Username



*EC2 Dashboard



*S3 Dashboard

The screenshot shows the Amazon S3 console interface. At the top, there's a navigation bar with the AWS logo, 'Services', 'Resource Groups', and user information. A blue banner at the top right contains a message about the console update. The left sidebar lists 'Amazon S3' and 'Buckets'. The main content area shows 'Buckets (1)' with a table listing one bucket: 'atul-aws-project-bucket' in 'US East (Ohio) us-east-2' region, with public access and created on '2020-03-31T14:21:23.000Z'. Buttons for 'Copy ARN', 'Empty', 'Delete', and 'Create bucket' are visible.

Amazon S3

Buckets (1)

Find bucket by name

Name	Region	Access	Bucket created
atul-aws-project-bucket	US East (Ohio) us-east-2	Objects can be public	2020-03-31T14:21:23.000Z

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*Recognition Dashboard

The screenshot shows the Amazon Rekognition dashboard. The header includes the AWS logo and navigation links. The left sidebar lists 'Amazon Rekognition' and various features like 'Custom Labels', 'Demos', and 'Video Demos'. The main content area features a large banner with the text 'Amazon Rekognition' and 'Deep learning-based visual analysis service'. Below the banner are three icons representing 'Easily Integrate Powerful', 'Continuously Learning', and 'Integrated with AWS Services'.

Amazon Rekognition

Deep learning-based visual analysis service
Search, verify, and organize millions of images and videos

Try Demo
Download SDKs

Easily Integrate Powerful Continuously Learning Integrated with AWS Services

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(2) SCREENSHOTS FOR EC2

*Choosing an AMI

Step 1: Choose an Amazon Machine Image (AMI)

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

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)

Amazon Linux Free tier eligible

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

64-bit (x86)

64-bit (Arm)

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

Amazon Linux Free tier eligible

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.

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

64-bit (x86)

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*Choosing an Instance Type

Step 2: Choose an Instance Type

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
<input type="checkbox"/>	General purpose	t2.large	2	8	EBS only	-	Low to Moderate	Yes

Cancel Previous Review and Launch Next: Configure Instance Details

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*Adding Storage

aws

Services

Resource Groups

Atul

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 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.

CancelPreviousReview and LaunchNext: Add Tags

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*Configuring Security Group

aws

Services

Resource Groups

Atul

Ohio

Support

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

Step 6: Configure Security Group

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

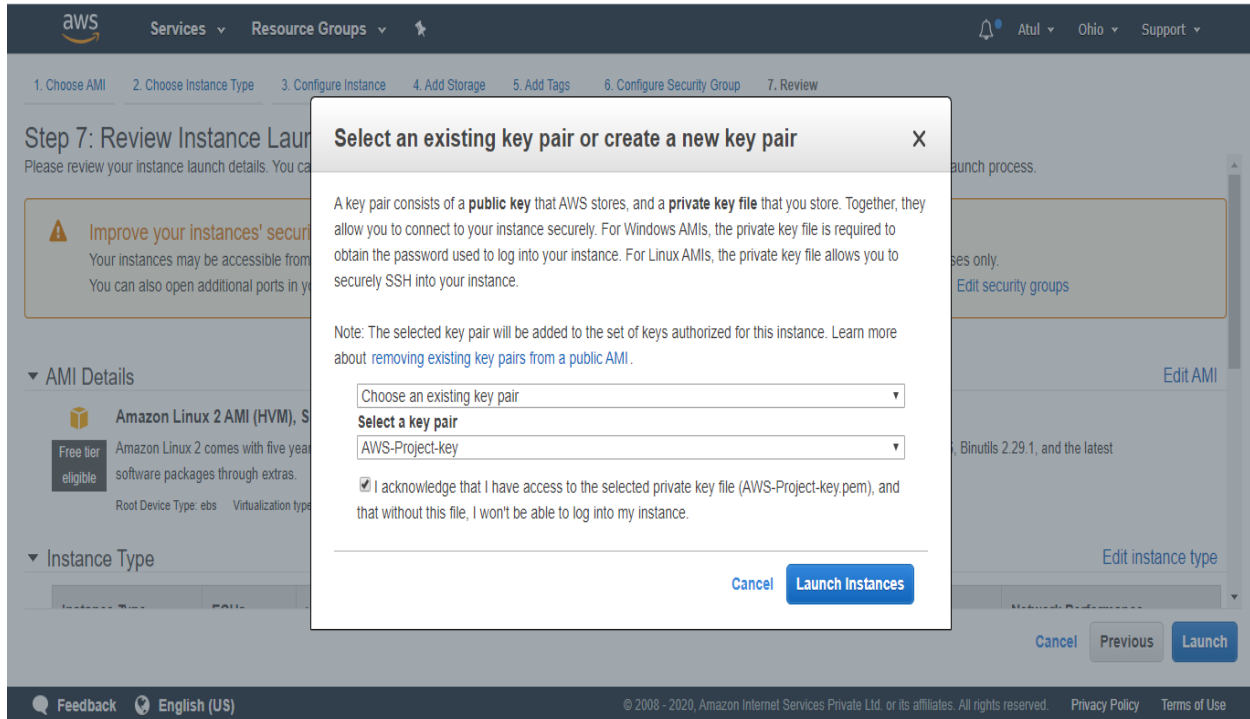
Warning

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.

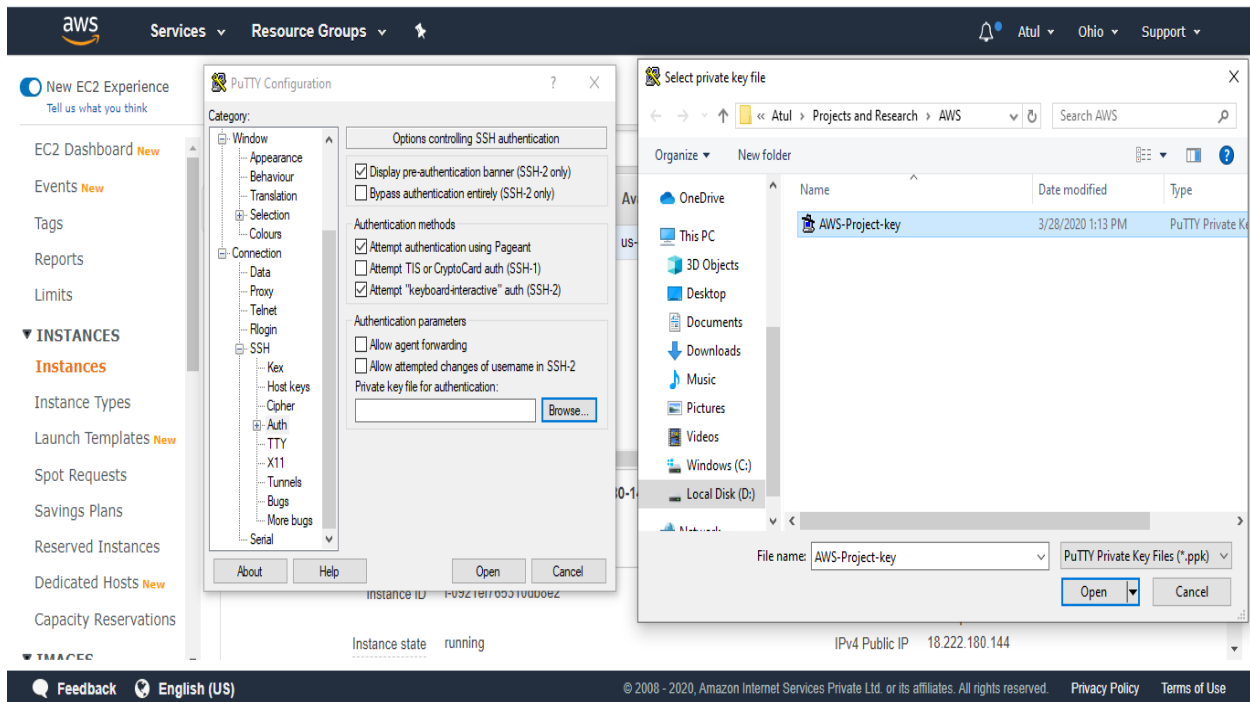
CancelPreviousReview and Launch

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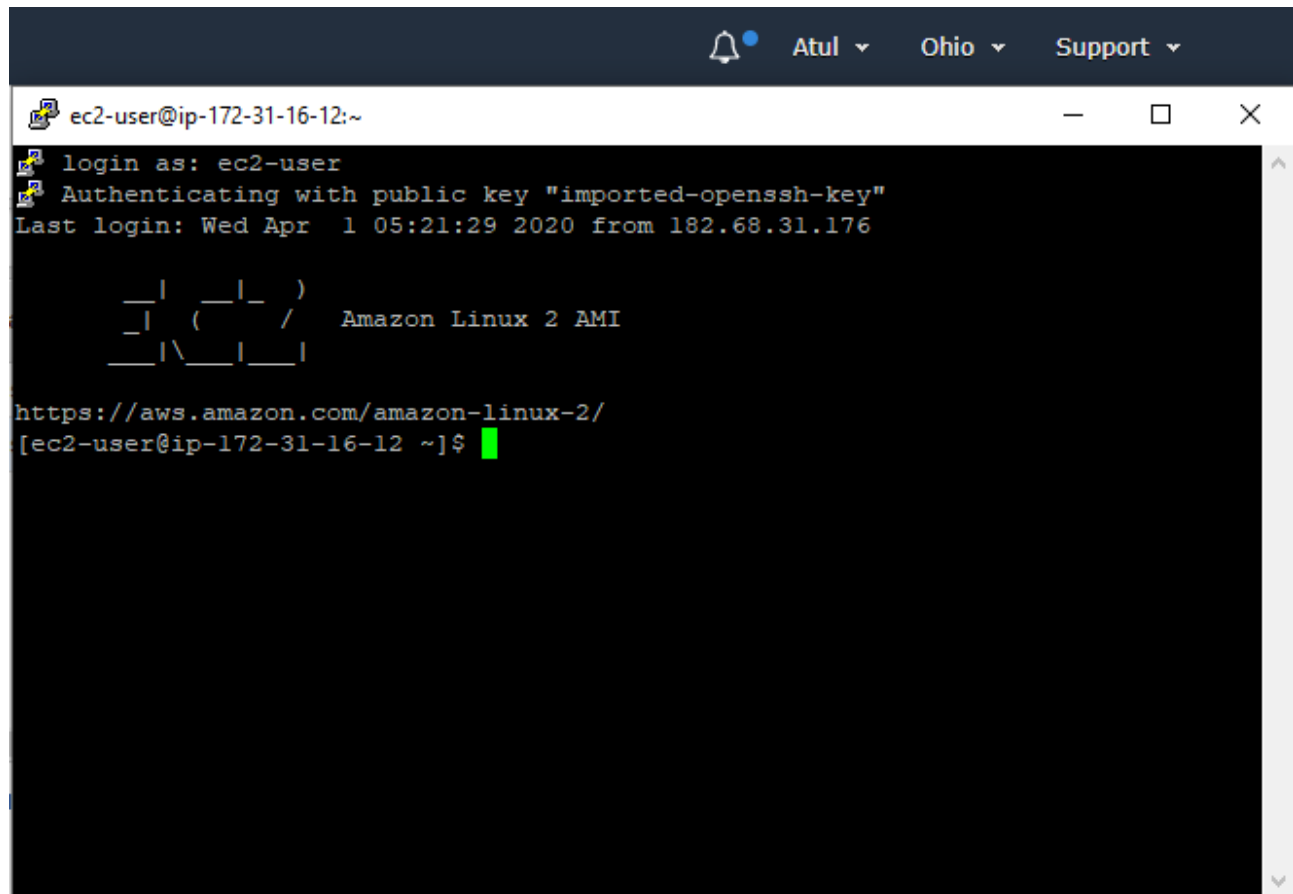
*Key-Pair Download



*PuTTYgen conversion from pem to pkc



***Logged in EC2 black screen**



The screenshot shows a terminal window titled "ec2-user@ip-172-31-16-12:~". The terminal output indicates a successful login for the "ec2-user" using a public key named "imported-openssh-key". The last login was on Wednesday, April 1, 2020, at 05:21:29 from IP address 182.68.31.176. The terminal displays the Amazon Linux 2 AMI logo, which consists of a stylized "A" made of horizontal lines. Below the logo, the text "Amazon Linux 2 AMI" is displayed. The terminal also shows the URL "https://aws.amazon.com/amazon-linux-2/" and the prompt "[ec2-user@ip-172-31-16-12 ~]\$" with a green cursor.

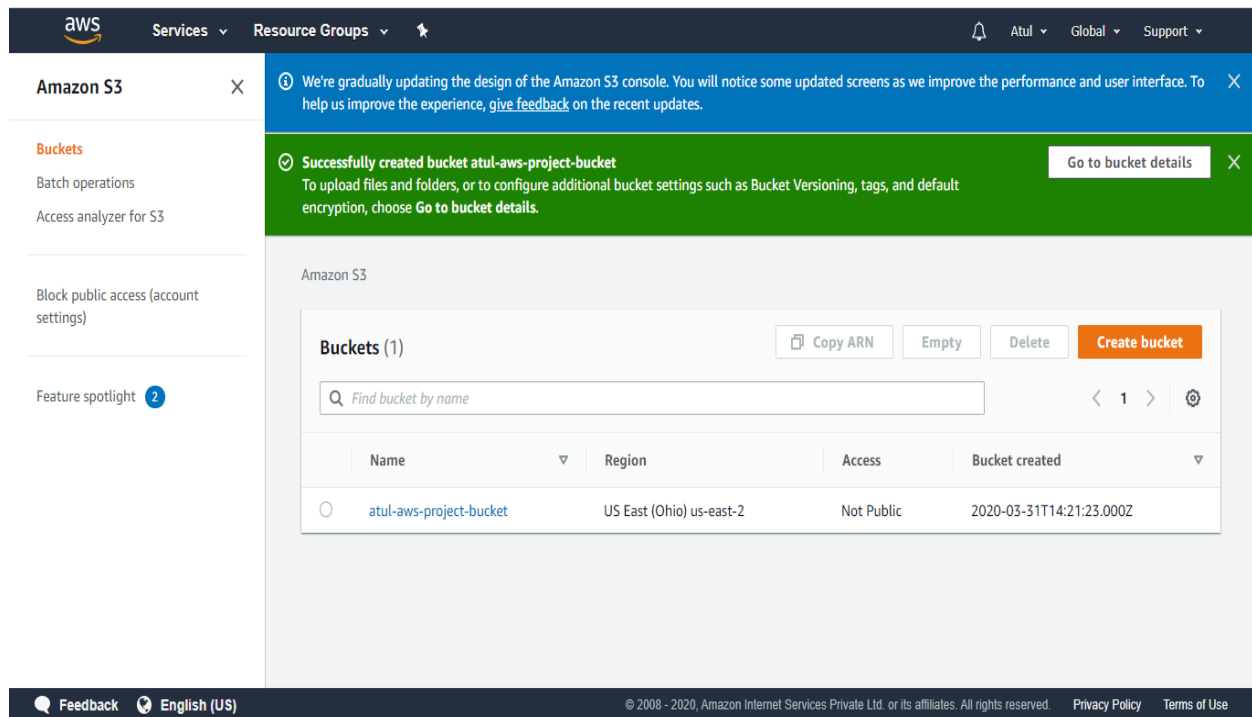
```
login as: ec2-user
Authenticating with public key "imported-openssh-key"
Last login: Wed Apr  1 05:21:29 2020 from 182.68.31.176

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

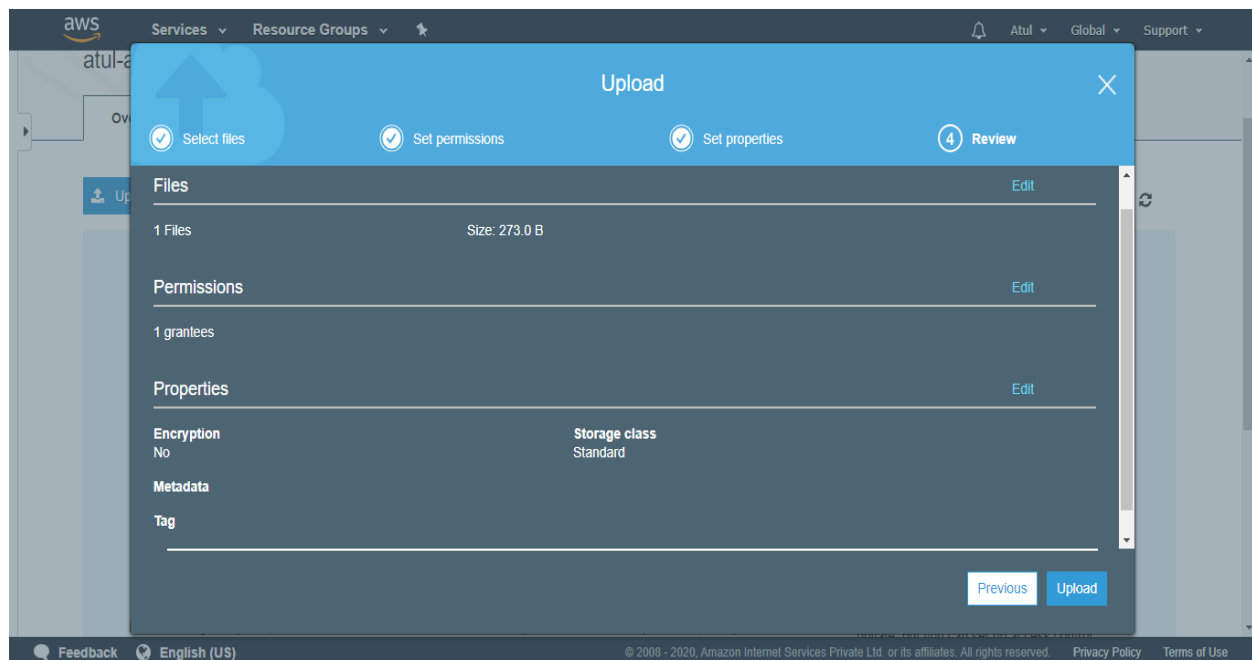
https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-172-31-16-12 ~]$
```

(3) SCREENSHOTS FOR S3

*Creating a bucket (atul-aws-project-bucket)



*Uploading an object in Bucket



*Enabling Static Website

The screenshot shows the 'Static website hosting' configuration page in the AWS S3 console. The page is titled 'Endpoint : http://atul-aws-project-bucket.s3-website.us-east-2.amazonaws.com'. It features a radio button selection for 'Use this bucket to host a website' (selected) and 'Disable website hosting'. Below this, there are input fields for 'Index document' (containing 'index.html') and 'Error document' (containing 'error.html'). A 'Redirection rules (optional)' section is also present. At the bottom, there are 'Cancel' and 'Save' buttons. A 'Disabled' status indicator is visible at the bottom left. A 'Learn more' link is present next to the 'Use this bucket to host a website' option. A 'Record object-level API activity using the CloudTrail data events feature (additional cost)' notification is shown on the right side.

Endpoint : http://atul-aws-project-bucket.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

☐ Disabled

Cancel Save

Record object-level API activity using the CloudTrail data events feature (additional cost). [Learn more](#)

Atul Global Support

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*Making Object Public

The screenshot shows the 'Properties' tab in the AWS S3 console for a file named 'index.html'. The page displays various metadata fields: 'Owner' (973ca21605db96afc48029d4d57cf2fd5ff35ab6fadd0fa60d4e5a4a8054a5f9), 'Last modified' (Mar 31, 2020 7:56:56 PM GMT+0530), 'Etag' (5e992890696ebb1c94a78dfa5c835b24), 'Storage class' (Standard), 'Server-side encryption' (None), 'Size' (273.0 B), and 'Key' (index.html). At the top, there are tabs for 'Overview', 'Properties', 'Permissions', and 'Select from'. Below the tabs, there are buttons for 'Open', 'Download', 'Download as', 'Make public', and 'Copy path'. At the bottom, there is a summary bar showing 'Operations' with '0 In progress', '2 Success', and '0 Error'.

Overview Properties Permissions Select from

Open Download Download as Make public Copy path

Owner
973ca21605db96afc48029d4d57cf2fd5ff35ab6fadd0fa60d4e5a4a8054a5f9

Last modified
Mar 31, 2020 7:56:56 PM GMT+0530

Etag
5e992890696ebb1c94a78dfa5c835b24

Storage class
Standard

Server-side encryption
None

Size
273.0 B

Key
index.html

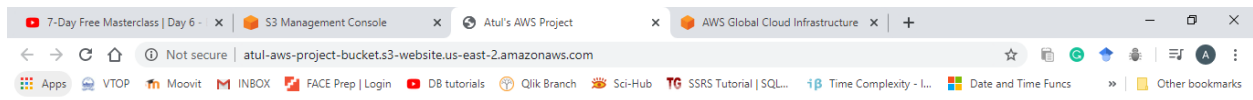
Operations 0 In progress 2 Success 0 Error

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*Checking S3 link in browser



This is my AWS project html file

(4) SCREENSHOTS FOR Rekognition

*Face-Detect

The screenshot displays the AWS Rekognition console interface. On the left, a navigation menu lists various services: Amazon Rekognition, Custom Labels, Use Custom Labels, Demos, Object and scene detection, Image moderation, Facial analysis (highlighted), Celebrity recognition, Face comparison, Text in image, Video Demos, and Video analysis. The main content area is titled "Facial analysis" with the subtitle "Get a complete analysis of facial attributes, including confidence scores." It features a large image of a group of people with bounding boxes around their faces. To the right, a "Results" section shows a detailed analysis of a selected face:

Attribute	Confidence Score
looks like a face	99.9 %
appears to be male	99.5 %
age range	22 - 34 years old
not smiling	99.5 %
appears to be calm	92.5 %

At the bottom of the console, there is a footer with "Feedback", "English (US)", and copyright information: "© 2008 - 2020, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. Privacy Policy Terms of Use".

*Face-Compare

The screenshot displays the AWS Rekognition console interface for the "Face comparison" demo. The left navigation menu is the same as in the previous screenshot, with "Face comparison" highlighted. The main content area is titled "Face comparison" with the subtitle "Compare faces to see how closely they match based on a similarity percentage." It shows a "Reference face" (a man with glasses) and "Comparison faces" (a group of people). The "Results" section displays a similarity score of 98.5% between the reference face and one of the comparison faces, represented by a blue progress bar. Below this, it shows a comparison with a different face that is not a match, indicated by a "not equal" symbol.

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

▼ Results

Similarity 98.5 %

Choose a sample image

Choose a sample image

At the bottom of the console, there is a footer with "Feedback", "English (US)", and copyright information: "© 2008 - 2020, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. Privacy Policy Terms of Use".

*Celebrity-Recognition

aws Services Resource Groups

Atul Ohio Support

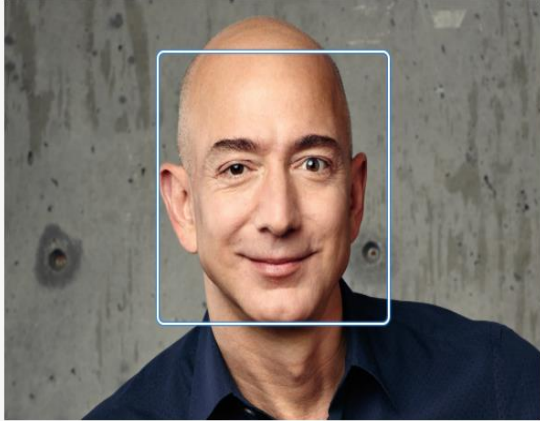
Amazon Rekognition

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

Celebrity recognition


Rekognition automatically recognizes celebrities in images and provides confidence scores.



Choose a sample image Use your own image
Image must be jpeg 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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*Text in Image

aws Services Resource Groups

Atul 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

Text in image

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



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

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

▼ Results US English only

| IT'S |
| MONDAY |
| but | keep |
| Smiling |

► Request
► Response

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(5) SCREENSHOTS FOR connecting EC2 to S3

*Installing aws-sdk

```

[ec2-user@ip-172-31-16-12 face]$ sudo php -d memory_limit=-1 ~/composer.phar require aws/aws-sdk-php
Using version ^2.8 for aws/aws-sdk-php
./composer.json has been created
Loading composer repositories with package information
Updating dependencies (including require-dev)
Package operations: 3 installs, 0 updates, 0 removals
  - Installing symfony/event-dispatcher (v2.8.52): Loading from cache
  - Installing guzzle/guzzle (v3.9.3): Downloading (100%)
  - Installing aws/aws-sdk-php (2.8.31): Downloading (100%)
symfony/event-dispatcher suggests installing symfony/dependency-injection
symfony/event-dispatcher suggests installing symfony/http-kernel
guzzle/guzzle suggests installing guzzlehttp/guzzle (Guzzle 5 has moved to a new package name. The package you have installed, Guzzle 3, is deprecated.)
aws/aws-sdk-php suggests installing doctrine/cache (Adds support for caching of credentials and responses)
aws/aws-sdk-php suggests installing ext-apc (Allows service description opcode caching, request and response caching, and credentials caching)
aws/aws-sdk-php suggests installing monolog/monolog (Adds support for logging HTTP requests and responses)
aws/aws-sdk-php suggests installing symfony/yaml (Eases the ability to write manifests for creating jobs in AWS Import/Export)
Package guzzle/guzzle is abandoned, you should avoid using it. Use guzzlehttp/guzzle instead.
Writing lock file
Generating autoload files
[ec2-user@ip-172-31-16-12 face]$

```

*Installing Php

```

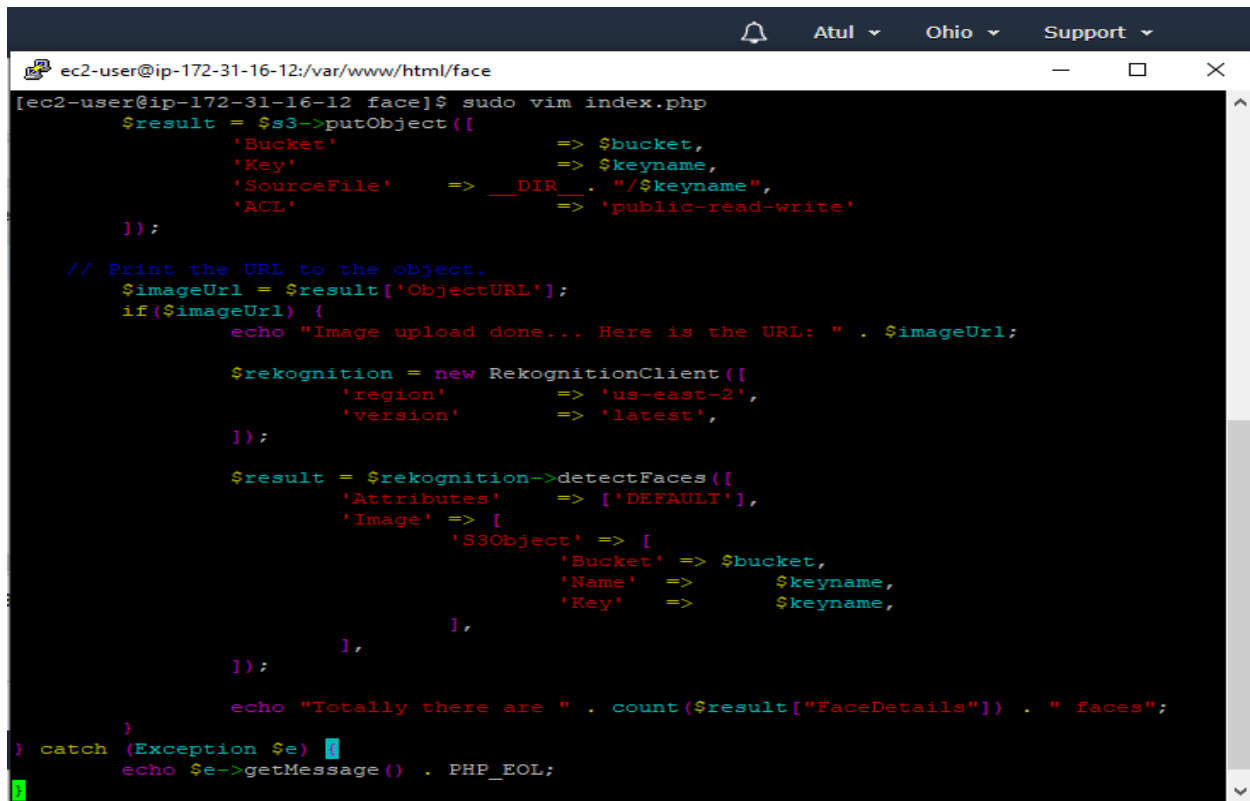
ec2-user@ip-172-31-16-12:~
login as: ec2-user
Authenticating with public key "imported-openssh-key"

    ____|_  ____|_  )
    ____|_  ( ____|_ /   Amazon Linux 2 AMI
    ____|_ \ ____|_  |

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-172-31-16-12 ~]$ sudo yum install php
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
amzn2-core | 2.4 kB 00:00
Resolving Dependencies
--> Running transaction check
--> Package php.x86_64 0:5.4.16-46.amzn2.0.2 will be installed
--> Processing Dependency: php-cli(x86-64) = 5.4.16-46.amzn2.0.2 for package: ph
p-5.4.16-46.amzn2.0.2.x86_64
--> Processing Dependency: php-common(x86-64) = 5.4.16-46.amzn2.0.2 for package:
php-5.4.16-46.amzn2.0.2.x86_64
--> Processing Dependency: httpd-mm = 20120211x8664 for package: php-5.4.16-46.
amzn2.0.2.x86_64
--> Processing Dependency: httpd for package: php-5.4.16-46.amzn2.0.2.x86_64
--> Running transaction check

```

*index.php file code



```
ec2-user@ip-172-31-16-12:/var/www/html/face
[ec2-user@ip-172-31-16-12 face]$ sudo vim index.php
$result = $s3->putObject([
    'Bucket' => $bucket,
    'Key' => $keyname,
    'SourceFile' => __DIR__ . "/$keyname",
    'ACL' => 'public-read-write'
]);

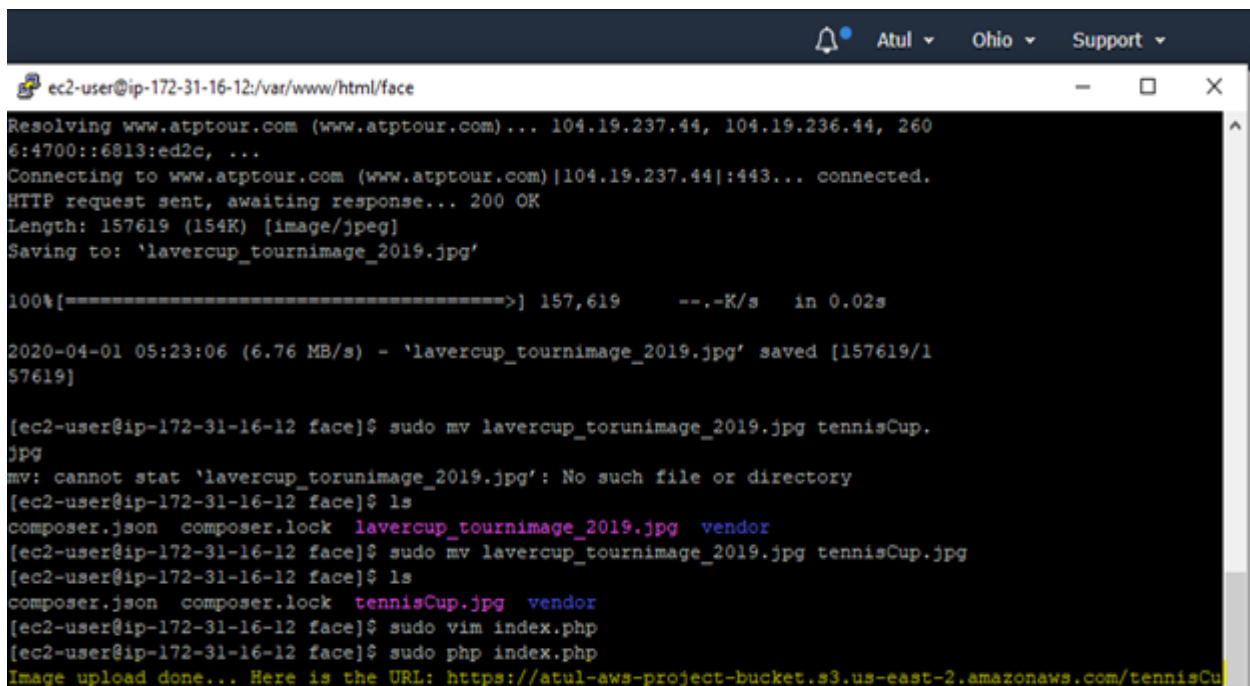
// Print the URL to the object.
$imageUrl = $result['ObjectURL'];
if($imageUrl) {
    echo "Image upload done... Here is the URL: " . $imageUrl;

    $rekognition = new RekognitionClient([
        'region' => 'us-east-2',
        'version' => 'latest',
    ]);

    $result = $rekognition->detectFaces([
        'Attributes' => ['DEFAULT'],
        'Image' => [
            'S3Object' => [
                'Bucket' => $bucket,
                'Name' => $keyname,
                'Key' => $keyname,
            ],
        ],
    ]);

    echo "Totally there are " . count($result["FaceDetails"]) . " faces";
}
} catch (Exception $e) {
    echo $e->getMessage() . PHP_EOL;
}
```

*Upload Success Screenshot



```
ec2-user@ip-172-31-16-12:/var/www/html/face
Resolving www.atptour.com (www.atptour.com)... 104.19.237.44, 104.19.236.44, 260
6:4700::6813:ed2c, ...
Connecting to www.atptour.com (www.atptour.com)[104.19.237.44]:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 157619 (154K) [image/jpeg]
Saving to: 'lavercup_tournimage_2019.jpg'

100%[=====>] 157,619  --.-K/s  in 0.02s

2020-04-01 05:23:06 (6.76 MB/s) - 'lavercup_tournimage_2019.jpg' saved [157619/1
57619]

[ec2-user@ip-172-31-16-12 face]$ sudo mv lavercup_torunimage_2019.jpg tennisCup.
jpg
mv: cannot stat 'lavercup_torunimage_2019.jpg': No such file or directory
[ec2-user@ip-172-31-16-12 face]$ ls
composer.json  composer.lock  lavercup_tournimage_2019.jpg  vendor
[ec2-user@ip-172-31-16-12 face]$ sudo mv lavercup_tournimage_2019.jpg tennisCup.jpg
[ec2-user@ip-172-31-16-12 face]$ ls
composer.json  composer.lock  tennisCup.jpg  vendor
[ec2-user@ip-172-31-16-12 face]$ sudo vim index.php
[ec2-user@ip-172-31-16-12 face]$ sudo php index.php
Image upload done... Here is the URL: https://atul-aws-project-bucket.s3.us-east-2.amazonaws.com/tennisCu
```

*Image URL present in S3 Bucket

The screenshot displays the AWS S3 console interface. At the top, the navigation bar includes the AWS logo, 'Services', 'Resource Groups', and a user profile for 'Atul'. Below the navigation bar, a toolbar contains buttons for 'Open', 'Download', 'Download as', 'Make public', and 'Copy path'. The main content area shows the following details for an S3 object:

- Owner:** 973ca21605db96afc48029d4d57cf2fd5ff35ab6fadd0fa60d4e5a4a8054a5f9
- Last modified:** Apr 1, 2020 10:56:19 AM GMT+0530
- Etag:** db7ed9e5eb9bf532d03e681b12287159
- Storage class:** Standard
- Server-side encryption:** None
- Size:** 153.9 KB
- Key:** tennisCup.jpg
- Object URL:** <https://atul-aws-project-bucket.s3.us-east-2.amazonaws.com/tennisCup.jpg>

The footer of the console shows a 'Feedback' button, the language 'English (US)', and copyright information: '© 2008 - 2020, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved.' It also includes links for 'Privacy Policy' and 'Terms of Use'.

(6) SCREENSHOTS FOR connecting EC2 to Rekognition

*Image URL present in S3 Bucket

```
ec2-user@ip-172-31-16-12:/var/www/html/face
login as: ec2-user
Authenticating with public key "imported-openssh-key"
Last login: Wed Apr 1 06:33:25 2020 from 182.68.31.176

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

https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-172-31-16-12 ~]$ cd /var/www/html
[ec2-user@ip-172-31-16-12 html]$ cd face
[ec2-user@ip-172-31-16-12 face]$ sudo php index.php
Image upload done... Here is the URL: https://atul-aws-project-bucket.s3.us-east-2.amazonaws.com/tennisCup.jpg
Totally there are 8 faces[ec2-user@ip-172-31-16-12 face]$
```

Successful; 8 faces have been detected.

Image used:

