

## **AWS PROJECT**

# **Building a Face-Detection AWS App**

Submitted by :

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USN : 4JK16EC005

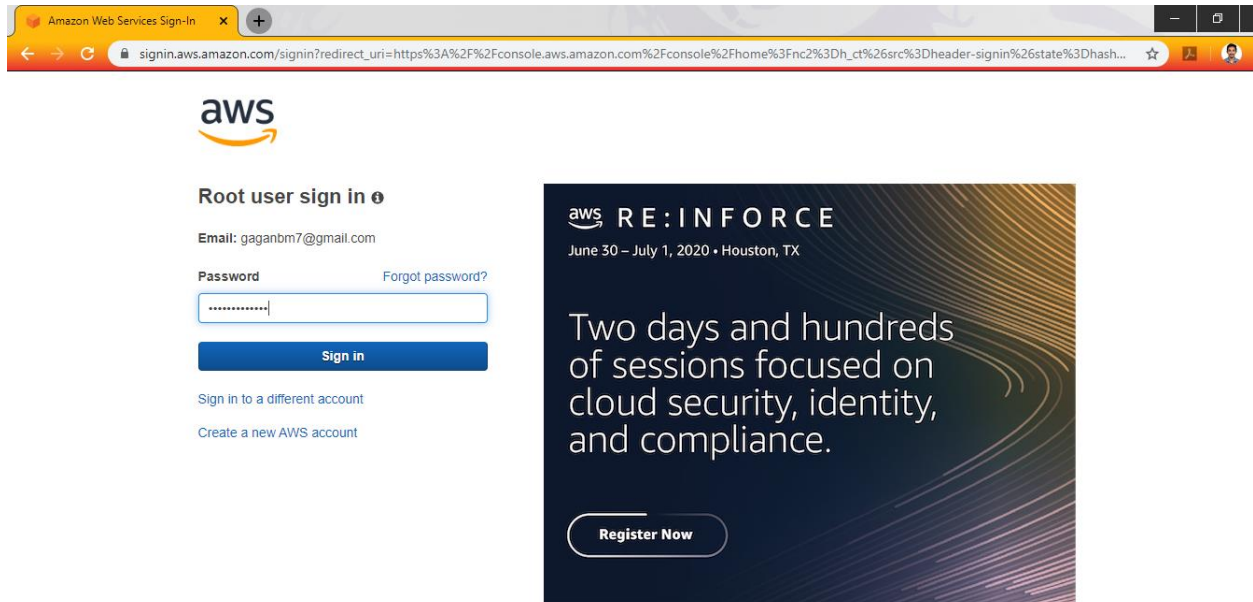
College : AJIET, Mangaluru

Email Id : gaganbm7@gmail.com

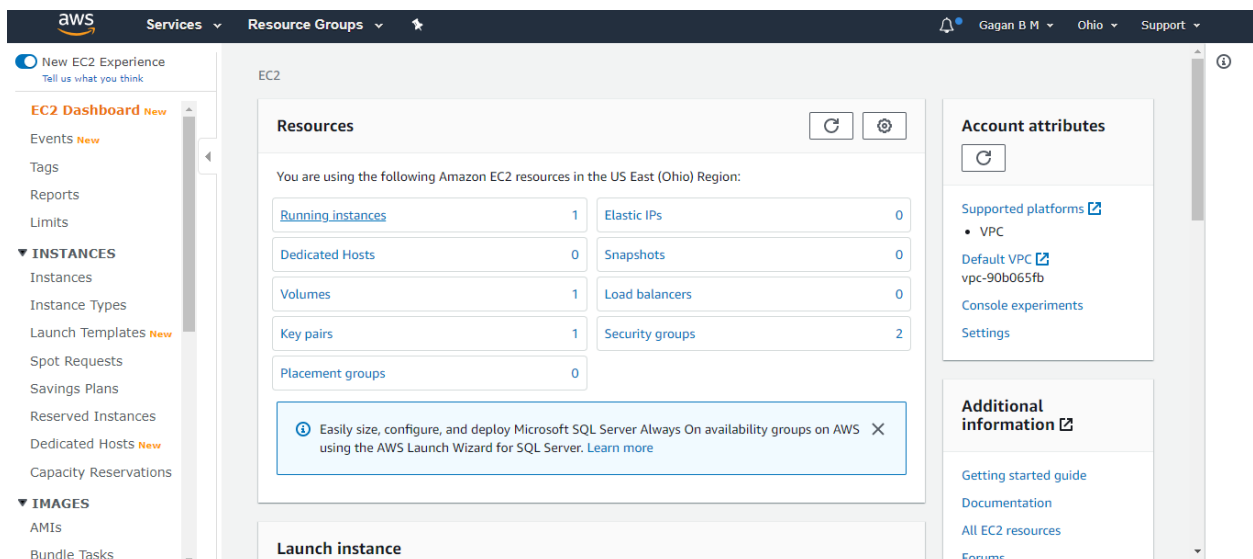
## Screenshots :

### Screenshots of Dashboards

#### 1. AWS Login screen with username



#### 2. EC2 Dashboard



### 3. S3 Dashboard

The screenshot shows the Amazon S3 console interface. The top navigation bar includes the AWS logo, 'Services', 'Resource Groups', and user information 'Gagan B M' in the 'Ohio' region. The left sidebar lists 'Amazon S3' with sub-links for 'Buckets', 'Batch operations', 'Access analyzer for S3', 'Block public access (account settings)', and 'Feature spotlight'. The main content area, titled 'Amazon S3', displays 'Buckets (1)' with buttons for 'Copy ARN', 'Empty', 'Delete', and 'Create bucket'. A search bar is present with the placeholder 'Find bucket by name'. Below the search bar is a table with the following data:

Name	Region	Access	Bucket created
aws-webinar-gagan	US East (Ohio) us-east-2	Objects can be public	2020-03-31T14:17:43.000Z

### 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 'Gagan B M' in the 'Ohio' region. The left sidebar lists 'Amazon Rekognition' with sub-links for 'Custom Labels', 'Demos', 'Video Demos', and 'Metrics'. The main content area features a large header with the text 'Amazon Rekognition' and 'Deep learning-based visual analysis service'. Below the header are buttons for 'Try Demo' and 'Download SDKs'. The bottom section contains three columns of information:

- Easily Integrate Powerful Visual Analysis into Your App**  
You don't need computer vision or deep learning expertise to take advantage of
- Continuously Learning**  
Amazon Rekognition is designed to use deep learning technology to analyze billions of images and videos daily. It is
- Integrated with AWS Services**  
Amazon Rekognition is designed to work seamlessly with other AWS services. Rekognition integrates directly with Amazon

# Screenshots of EC2

## 1. Choosing an AMI

aws

Services

Resource Groups

Gagan B M

Ohio

Support

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

Step 1: Choose an Amazon Machine Image (AMI)

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"

Quick Start

My AMIs

AWS Marketplace

Community AMIs

Free tier only

Amazon Linux

Free tier eligible

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

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: ebsVirtualization type: hvmENA Enabled: Yes

Amazon Linux

Free tier eligible

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

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: ebsVirtualization type: hvmENA Enabled: Yes

<1 to 40 of 40 AMIs>

## 2. Choosing an Instance Type

aws

Services

Resource Groups

Gagan B M

Ohio

Support

1. Choose AMI2. Choose Instance Type3. Configure Instance4. Add Storage5. Add Tags6. Configure Security Group7. 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 typesCurrent generationShow/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

CancelPreviousReview and LaunchNext: Configure Instance Details

### 3. Adding Storage

aws

Services ▾ Resource Groups ▾ ★

🔔 Gagan B M ▾ Ohio ▾ Support ▾

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

### 4. Configuring Security Group

aws

Services ▾ Resource Groups ▾ ★

🔔 Gagan B M ▾ Ohio ▾ Support ▾

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

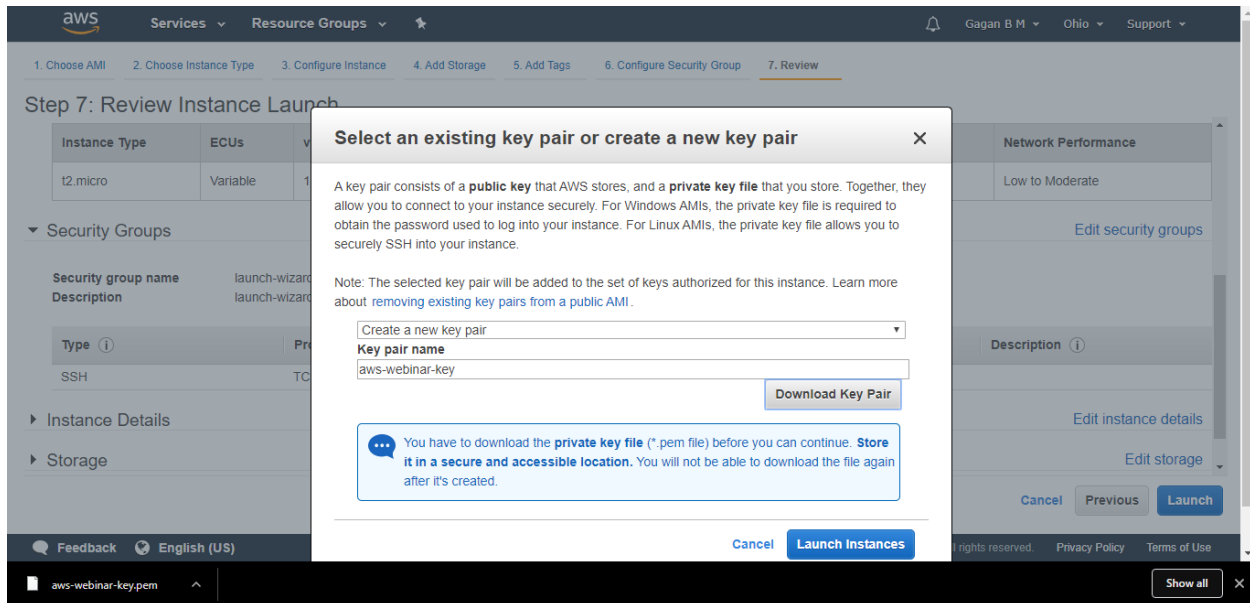
Add Rule

⚠ Warning

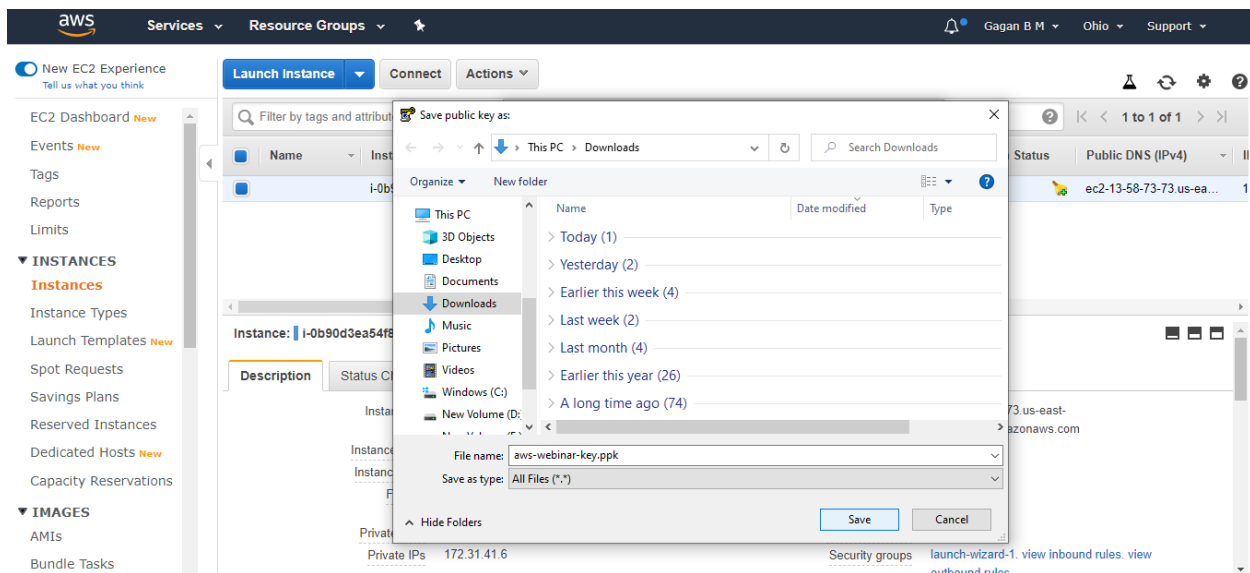
Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

Cancel Previous **Review and Launch**

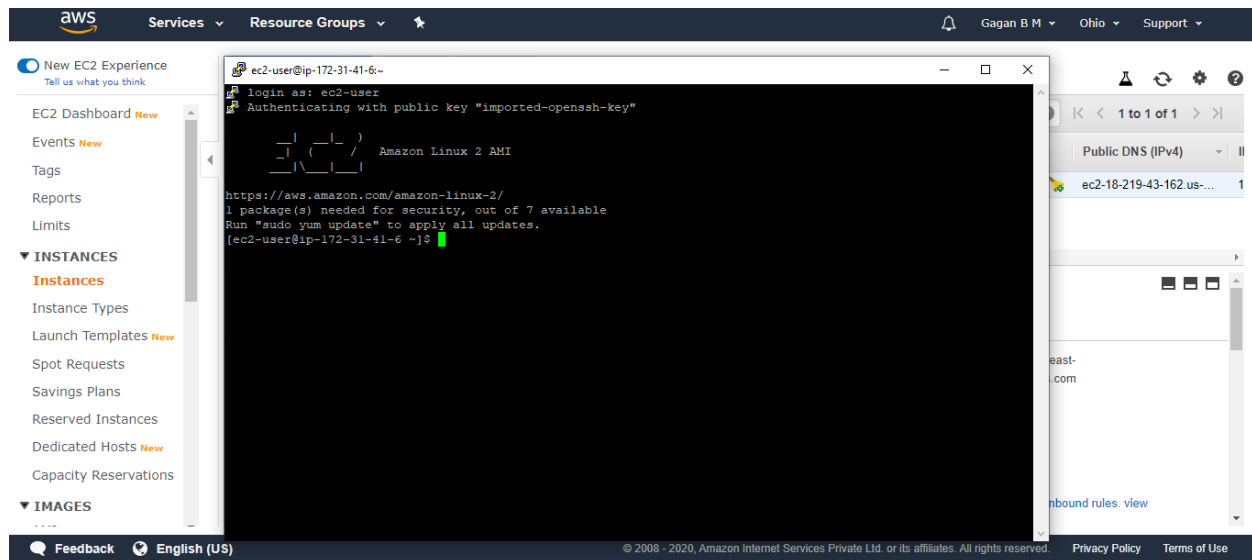
## 5. Key Pair Download



## 6. PuTTYgen conversion from pem to ppk

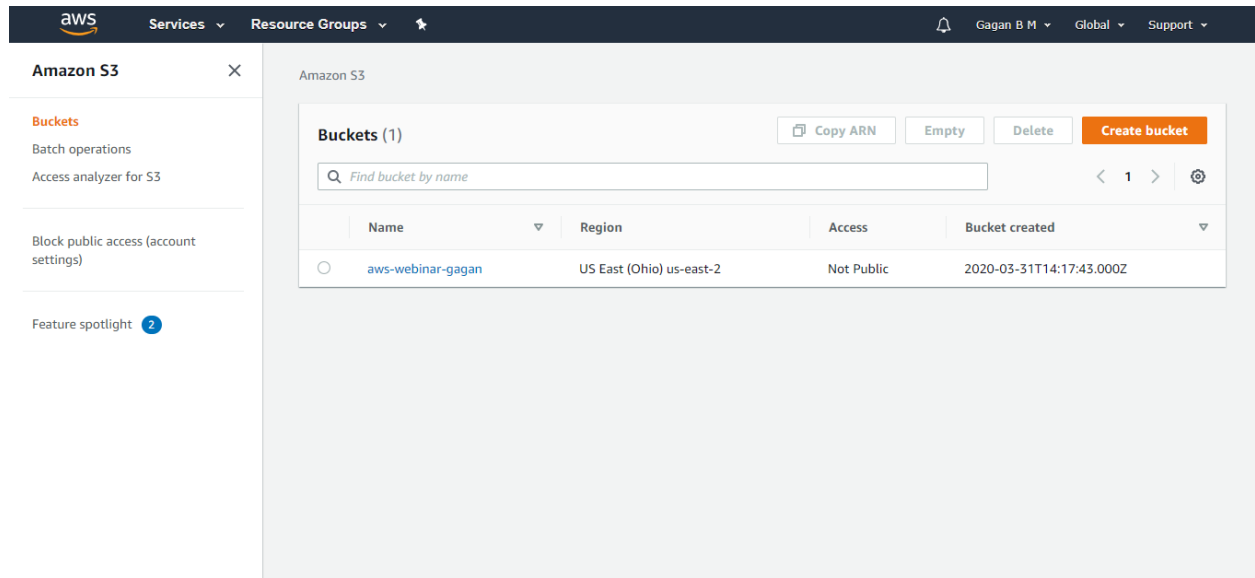


## 7. Logged In EC2 black screen

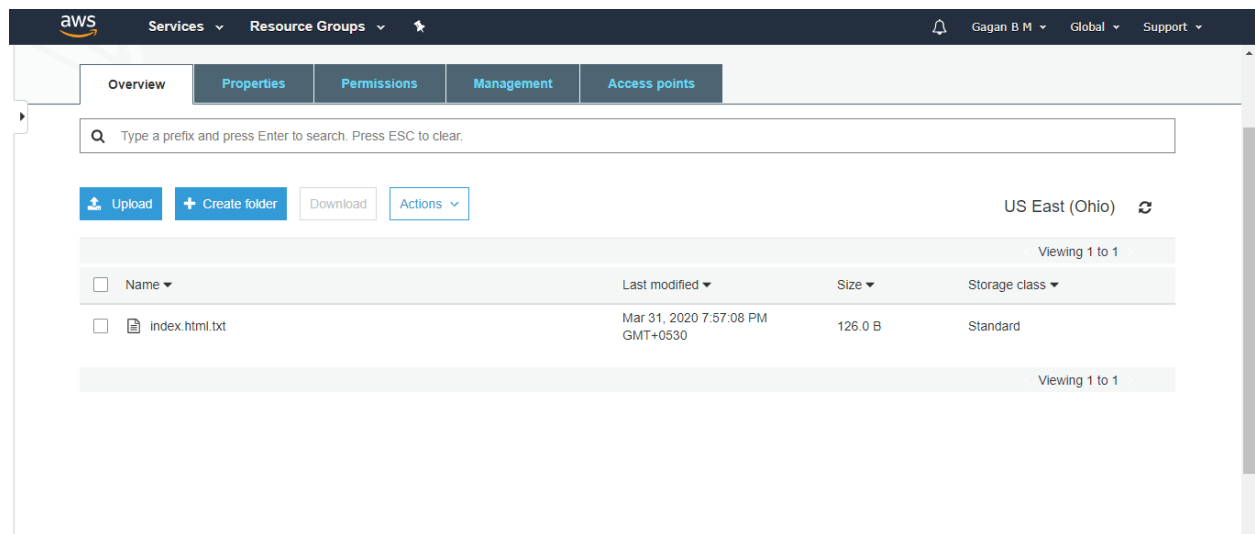


## Screenshots of S3

### 1. Creating a bucket

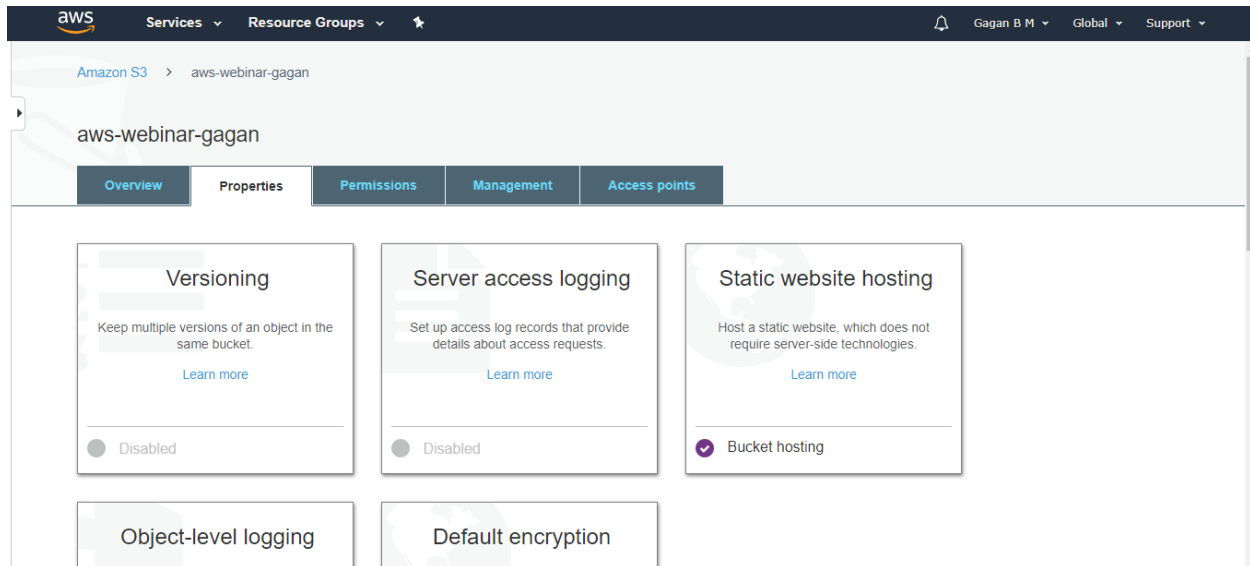


### 2. Uploading an Object

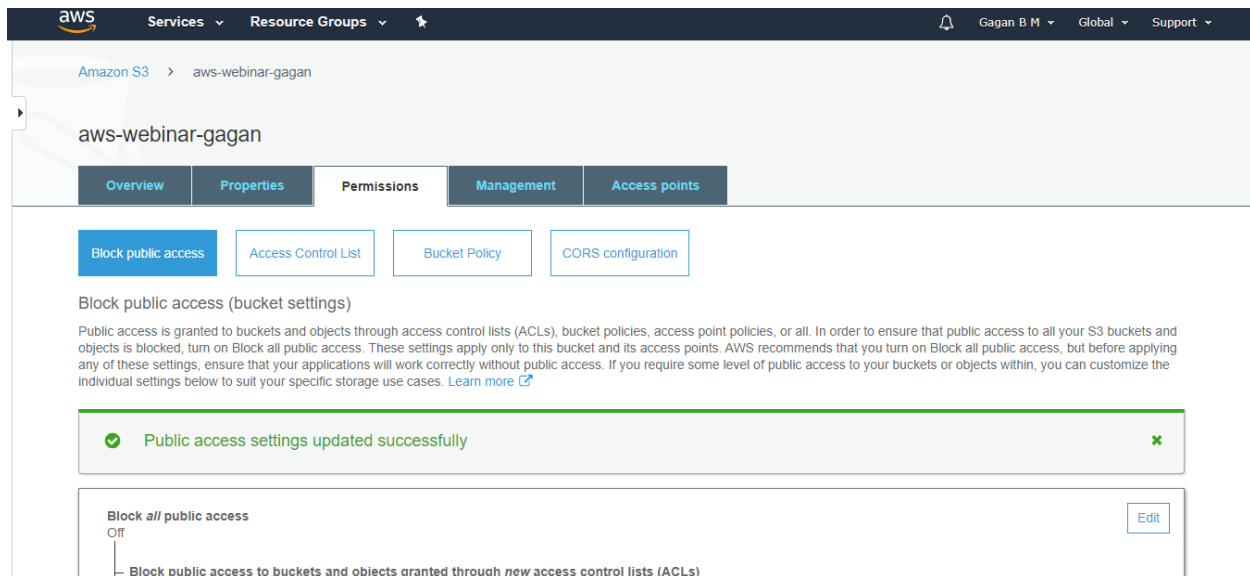




### 3. Enabling Static Website



### 4. Making the Object Public



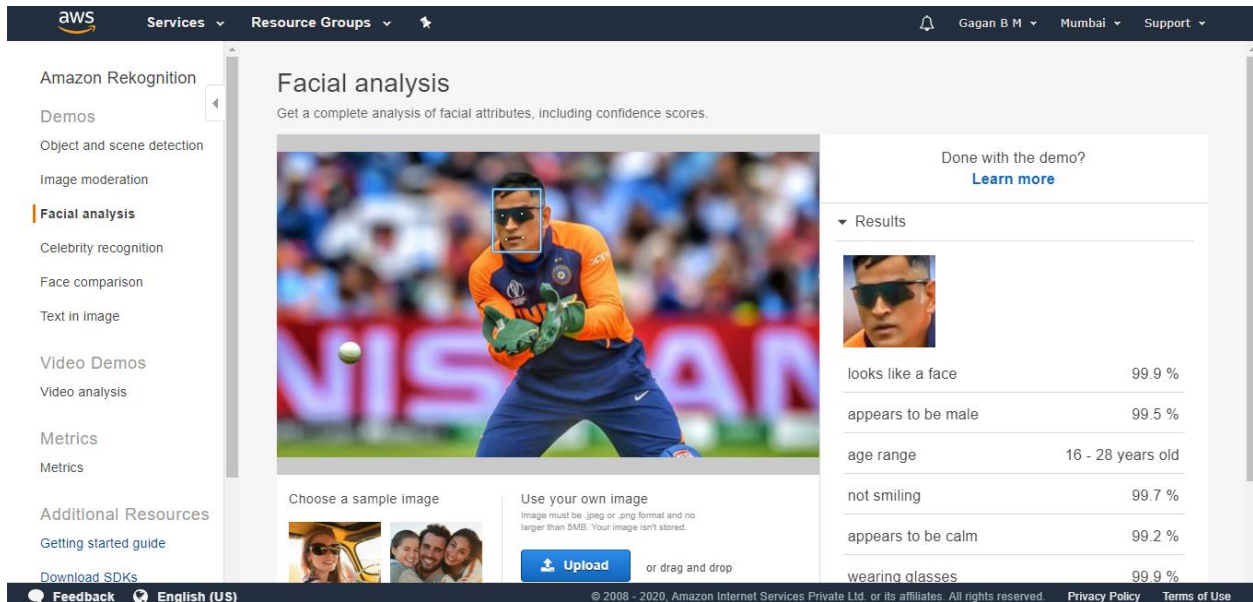
## 5. Checking the S3 link on the browser



It's time for you to start taking the necessary steps, to become that version of yourself that you can't stop DREAMING about

## Screenshots for Rekognition

### 1. Face Detect



## 2. Face Compare

The screenshot shows the AWS Rekognition 'Face comparison' demo. The interface includes a sidebar with navigation options like 'Demos', 'Object and scene detection', 'Image moderation', 'Facial analysis', 'Celebrity recognition', 'Face comparison' (highlighted), 'Text in image', 'Video Demos', 'Video analysis', 'Metrics', and 'Additional Resources'. The main content area is titled 'Face comparison' and explains that it compares faces to see how closely they match based on a similarity percentage. It features two image upload sections: 'Reference face' and 'Comparison faces'. Below these are two result panels. The first panel shows a match between two images of a man in a blue India cricket jersey, with a similarity score of 98.7% displayed on a blue progress bar. The second panel shows a non-match between the same man and a different image, indicated by a red 'X' and a lower similarity score. The footer contains 'Feedback', 'English (US)', and copyright information for Amazon Internet Services Private Ltd.

## 3. Celebrity Recognition

The screenshot shows the AWS Rekognition 'Celebrity recognition' demo. The sidebar is similar to the previous one, but 'Celebrity recognition' is highlighted. The main content area is titled 'Celebrity recognition' and states that it automatically recognizes celebrities in images and provides confidence scores. It features three image upload sections: 'Choose a sample image', 'Use your own image' (with a note that images must be .jpeg or .png, no larger than 5MB, and not stored), and 'Upload' (with a 'drag and drop' option). Below these are two result panels. The first panel shows a match for 'Amitabh Bachchan' with a match confidence of 94%. The second panel shows a match for 'Shah Rukh Khan' with a match confidence of 100%. The footer contains 'Feedback', 'English (US)', and copyright information for Amazon Internet Services Private Ltd.

## 4. Text in Image

The screenshot shows the Amazon Rekognition 'Text in image' demo. On the left is a navigation menu with options like Demos, Object and scene detection, Image moderation, Facial analysis, Celebrity recognition, Face comparison, Text in image (selected), Video Demos, Video analysis, Metrics, and Additional Resources. The main area displays a team photo of the Mumbai Indians cricket team. Overlaid on the image is a bounding box containing the text 'CHALLENGE ACCEPTED' and '2020'. To the right, the 'Results' section shows the detected text: '#PLAYBOLD | CHALLENGE | ACCEPTED | 2020 | 16 | VROGN | GN | vR | WI | GN | WR | N | WR | N | WR | WROGN | GN |'. Below this is a 'Request' section. The footer includes 'Feedback', 'English (US)', and copyright information for Amazon Internet Services Private Ltd.

## Screenshots of EC2 & S3

### 1. Installing aws-sdk

```
aws
Services Resource Groups
Gagan B M Ohio Support

ec2-user@ip-172-31-41-6:/var/www/html/face
login as: ec2-user
Authenticating with public key "imported-openssh-key"
Last login: Wed Apr 1 13:11:14 2020 from 223.186.232.70

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

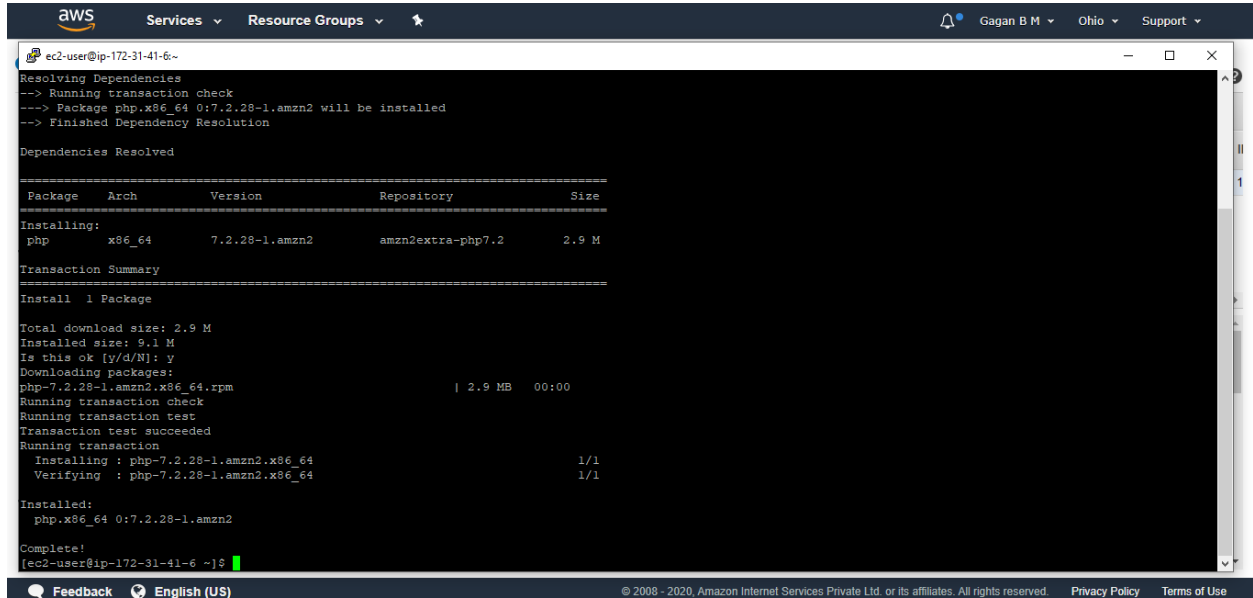
Amazon Linux 2 AMI

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-172-31-41-6 ~]$ curl -sS https://getcomposer.org/installer | php
All settings correct for using Composer
Downloading...

Composer (version 1.10.1) successfully installed to: /home/ec2-user/composer.phar
Use it: php composer.phar

[ec2-user@ip-172-31-41-6 ~]$ cd /var/www/html
[ec2-user@ip-172-31-41-6 html]$ sudo mkdir face
mkdir: cannot create directory 'face': File exists
[ec2-user@ip-172-31-41-6 html]$ cd face
[ec2-user@ip-172-31-41-6 face]$ pwd
/var/www/html/face
[ec2-user@ip-172-31-41-6 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 updated
Loading composer repositories with package information
Updating dependencies (including require-dev)
Nothing to install or update
Package guzzle/guzzle is abandoned, you should avoid using it. Use guzzlehttp/guzzle instead.
Generating autoload files
[ec2-user@ip-172-31-41-6 face]$
```

## 2. Installing php



```
aws
Services ▾ Resource Groups ▾ ☆
Gagan B M ▾ Ohio ▾ Support ▾

ec2-user@ip-172-31-41-6~
Resolving Dependencies
--> Running transaction check
---> Package php.x86_64 0:7.2.28-1.amzn2 will be installed
--> Finished Dependency Resolution

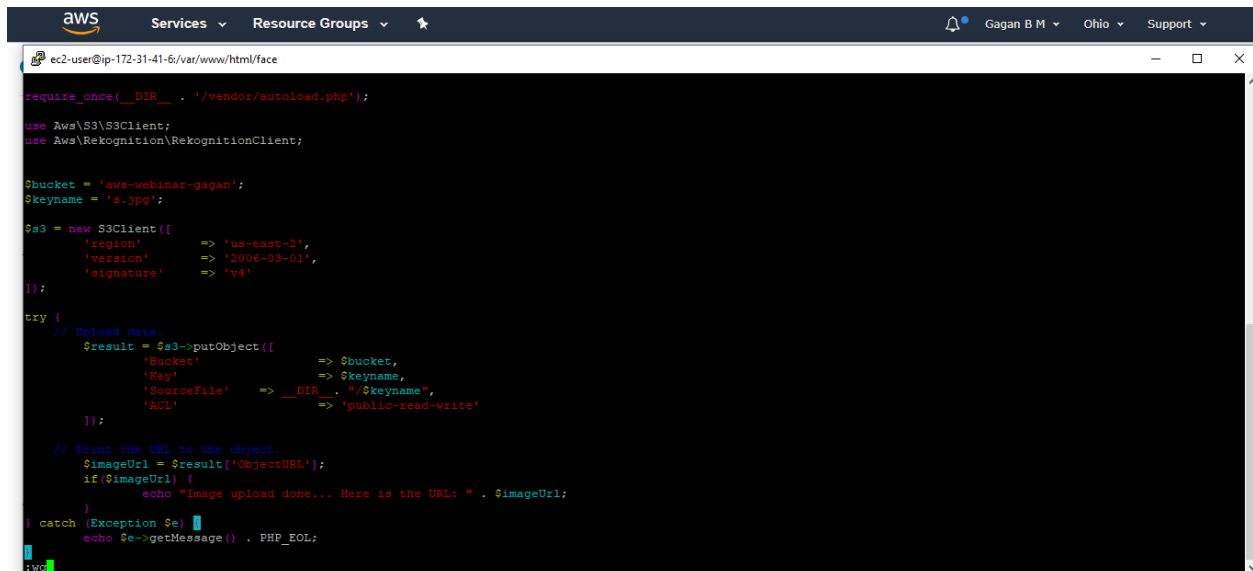
Dependencies Resolved

=====
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]: y
Downloading packages:
php-7.2.28-1.amzn2.x86_64.rpm | 2.9 MB 00:00
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
Installing : php-7.2.28-1.amzn2.x86_64 1/1
Verifying : php-7.2.28-1.amzn2.x86_64 1/1
Installed:
php.x86_64 0:7.2.28-1.amzn2
Complete!
[ec2-user@ip-172-31-41-6 ~]$
```

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## 3. Index.php file code



```
aws
Services ▾ Resource Groups ▾ ☆
Gagan B M ▾ Ohio ▾ Support ▾

ec2-user@ip-172-31-41-6:/var/www/html/face
require_once(__DIR__ . '/vendor/autoload.php');

use Aws\S3\S3Client;
use Aws\Rekognition\RekognitionClient;

$bucket = 'aws-webinar-gagan';
$keyname = 's.jpg';

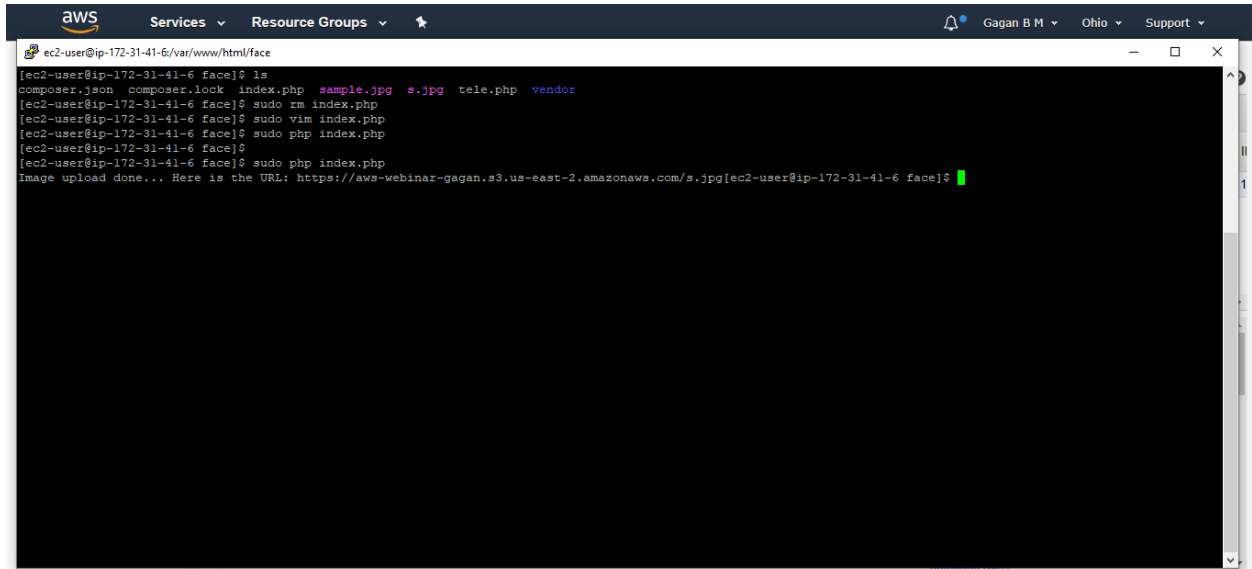
$s3 = new S3Client([
    'region' => 'us-east-2',
    'version' => '2006-03-01',
    'signature' => 'v4'
]);

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;
    }
} catch (Exception $e) {
    echo $e->getMessage() . PHP_EOL;
}

:~$
```

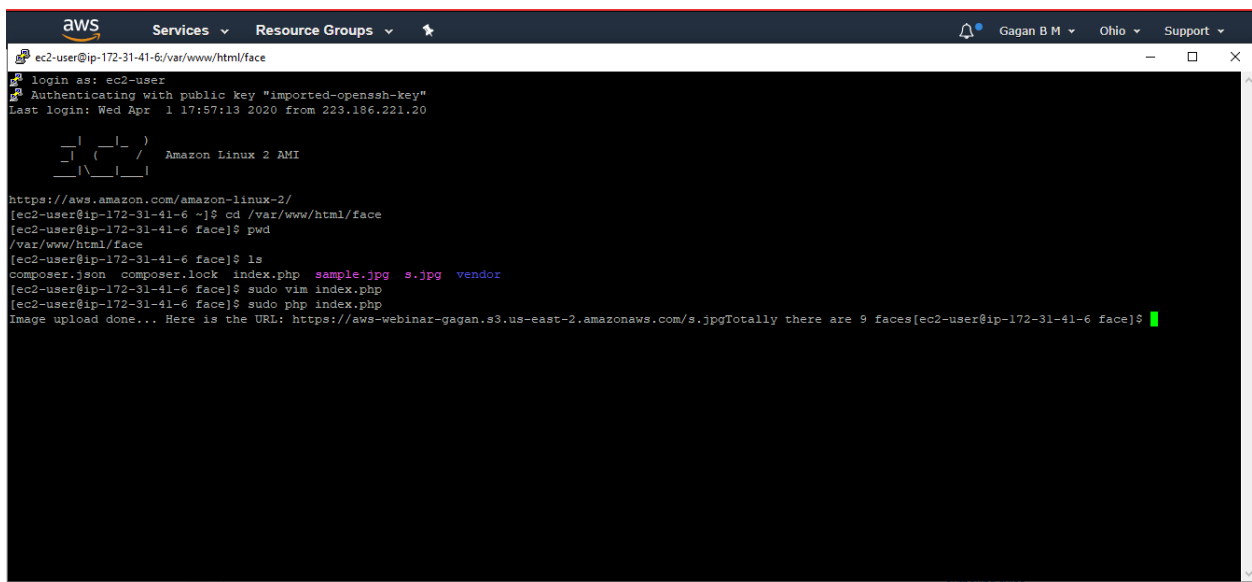
#### 4. Upload success screenshot



```
aws
Services Resource Groups
ec2-user@ip-172-31-41-6:/var/www/html/face
[ec2-user@ip-172-31-41-6 face]$ ls
composer.json composer.lock index.php sample.jpg s.jpg tele.php vendor
[ec2-user@ip-172-31-41-6 face]$ sudo rm index.php
[ec2-user@ip-172-31-41-6 face]$ sudo vim index.php
[ec2-user@ip-172-31-41-6 face]$ sudo php index.php
[ec2-user@ip-172-31-41-6 face]$
[ec2-user@ip-172-31-41-6 face]$ sudo php index.php
Image upload done... Here is the URL: https://aws-webinar-gagan.s3.us-east-2.amazonaws.com/s.jpg[ec2-user@ip-172-31-41-6 face]$
```

### Screenshot of EC2 & Rekognition

#### 1. Face Detect success screenshot



```
aws
Services Resource Groups
ec2-user@ip-172-31-41-6:/var/www/html/face
login as: ec2-user
Authenticating with public key "imported-openssh-key"
Last login: Wed Apr 1 17:57:13 2020 from 223.186.221.20

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

https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-172-31-41-6 ~]$ cd /var/www/html/face
[ec2-user@ip-172-31-41-6 face]$ pwd
/var/www/html/face
[ec2-user@ip-172-31-41-6 face]$ ls
composer.json composer.lock index.php sample.jpg s.jpg vendor
[ec2-user@ip-172-31-41-6 face]$ sudo vim index.php
[ec2-user@ip-172-31-41-6 face]$ sudo php index.php
Image upload done... Here is the URL: https://aws-webinar-gagan.s3.us-east-2.amazonaws.com/s.jpgTotally there are 9 faces[ec2-user@ip-172-31-41-6 face]$
```