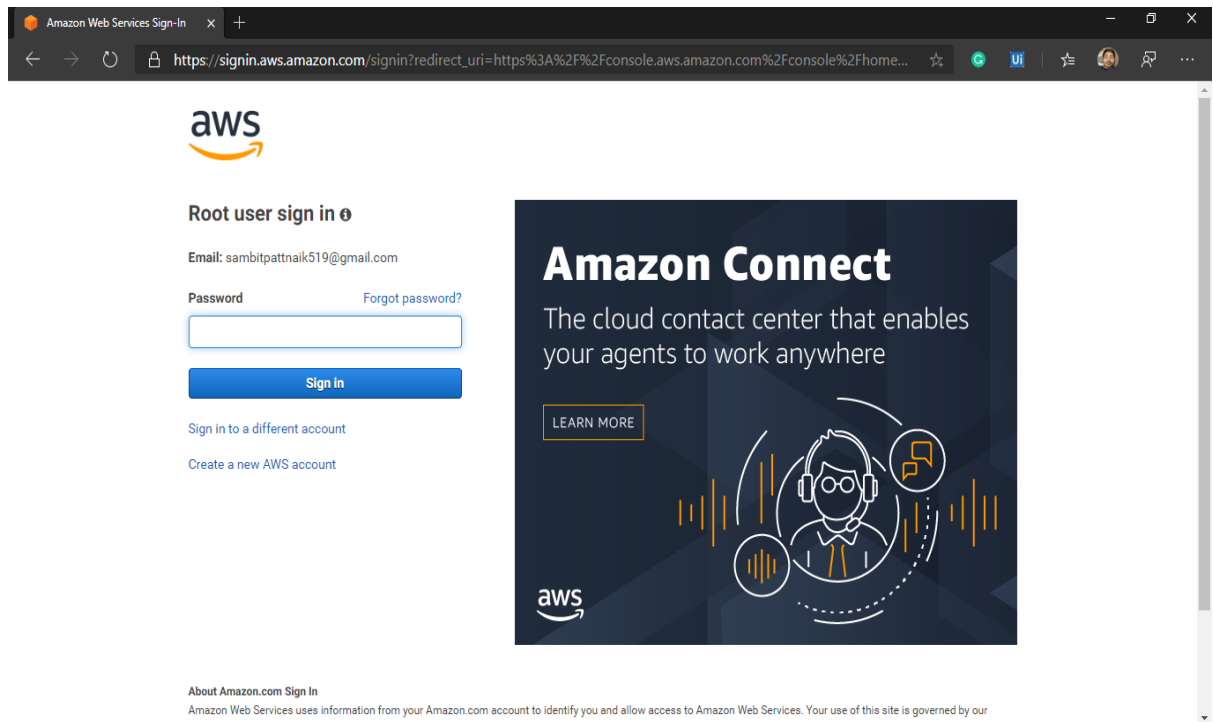


# **BUILD FACE DETECTION APP ON AWS**

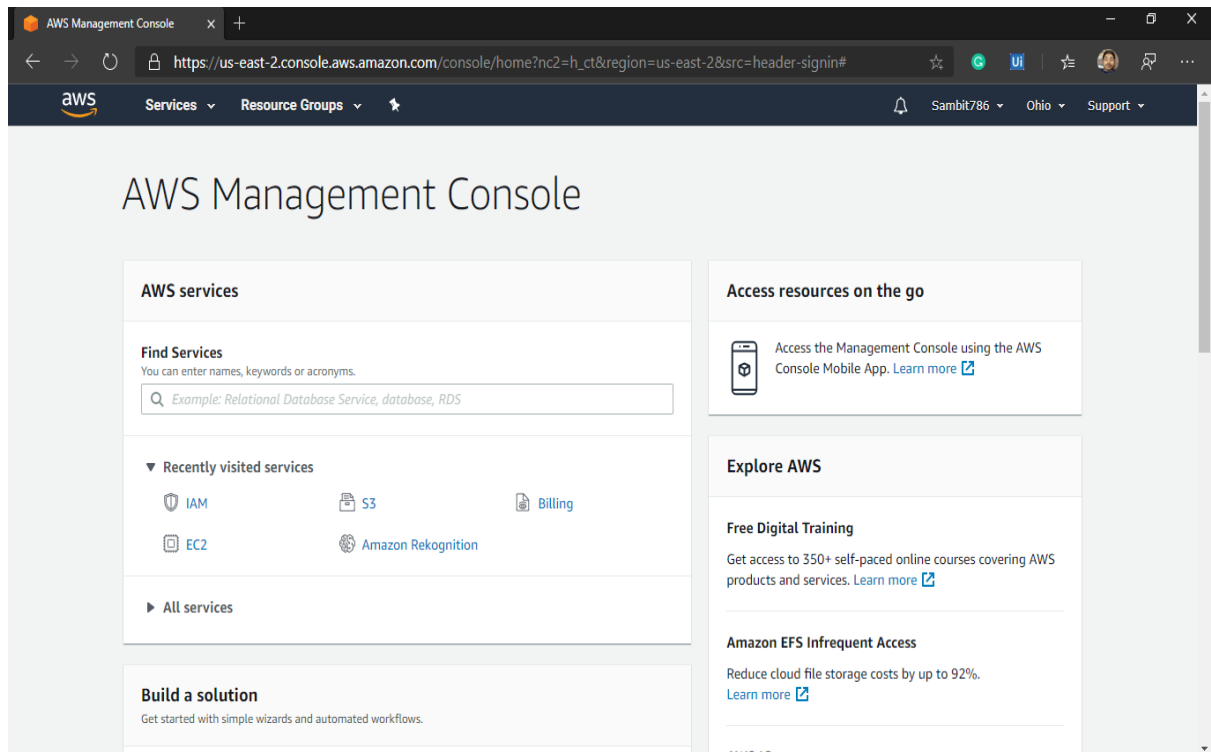
- **The Projects uses the following services from AWS:-**
  - 1.Elastic Cloud Compute (EC2)**
  - 2.Simple Storage Service (S3)**
  - 3.Rekognition**
- **User Service:**
  - 1. Telegram**

## **SCREENSHOTS FOR THE PROCESSES INVOLVED:-**

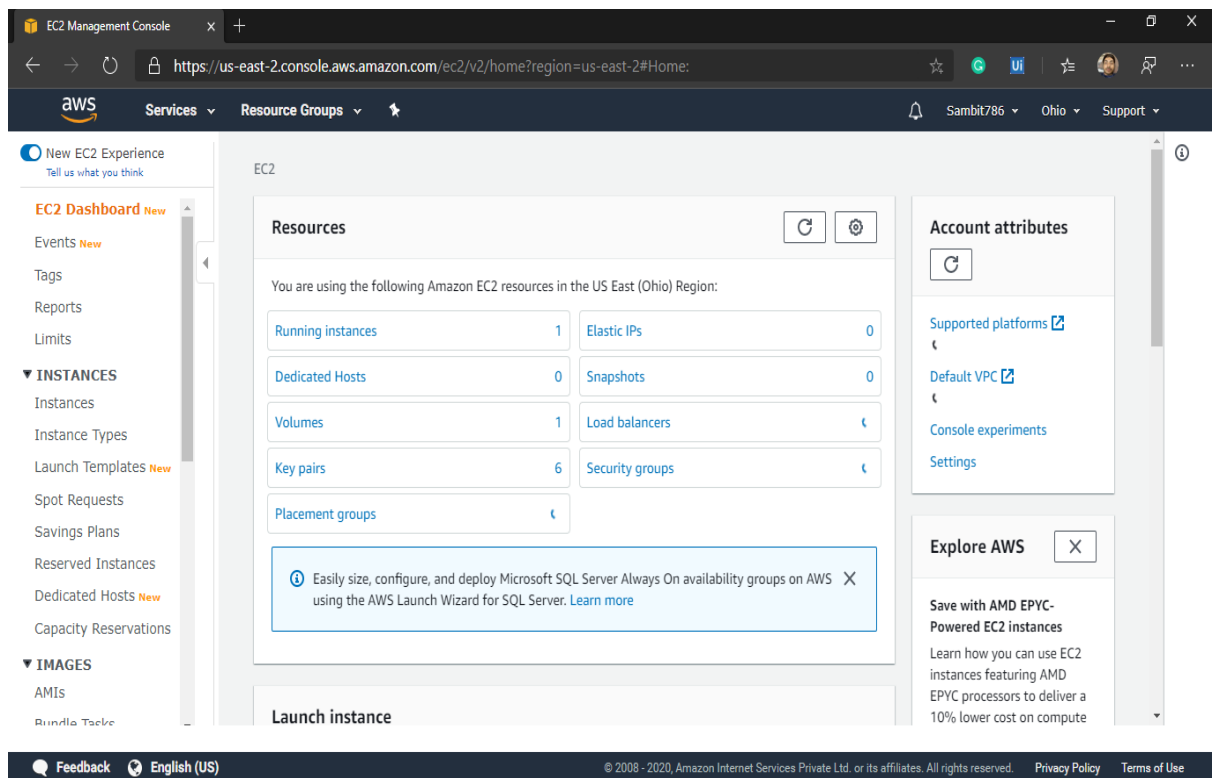
- **AWS LOGIN SCREEN WITH USERNAME:-**



# BUILD FACE DETECTION APP ON AWS

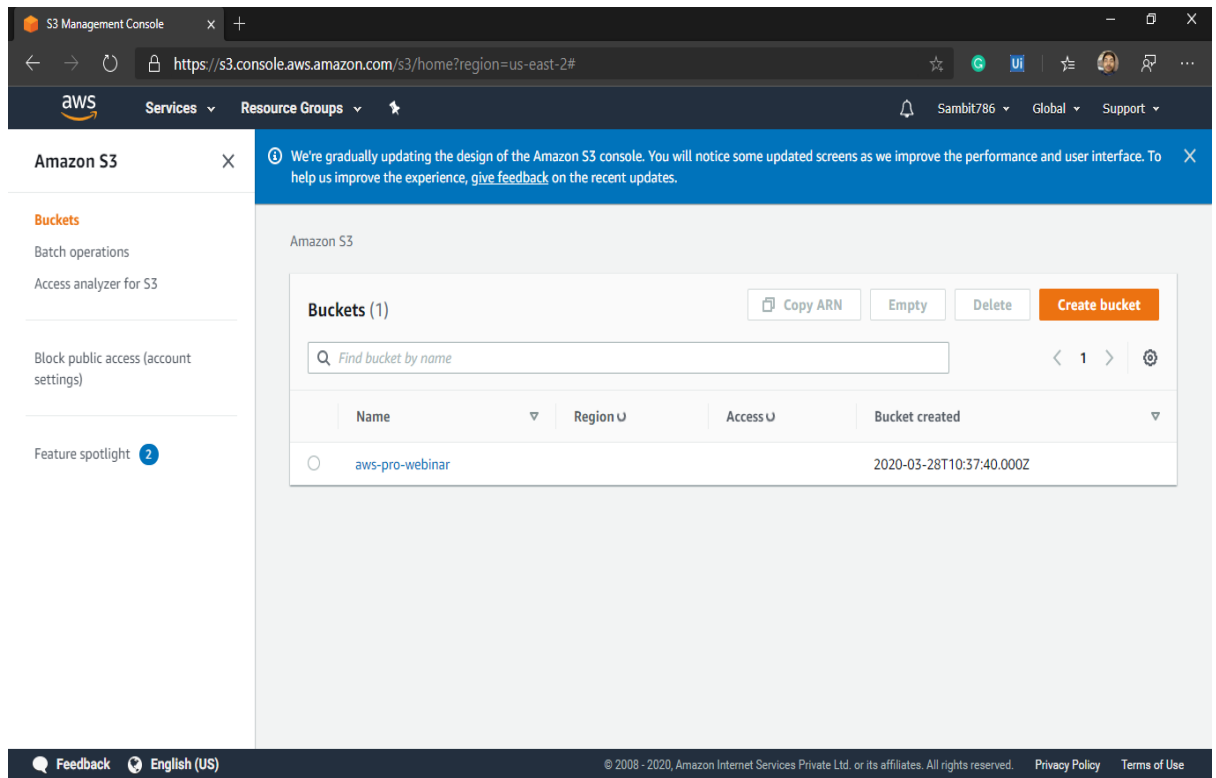


## ● EC2 DASHBOARD:-

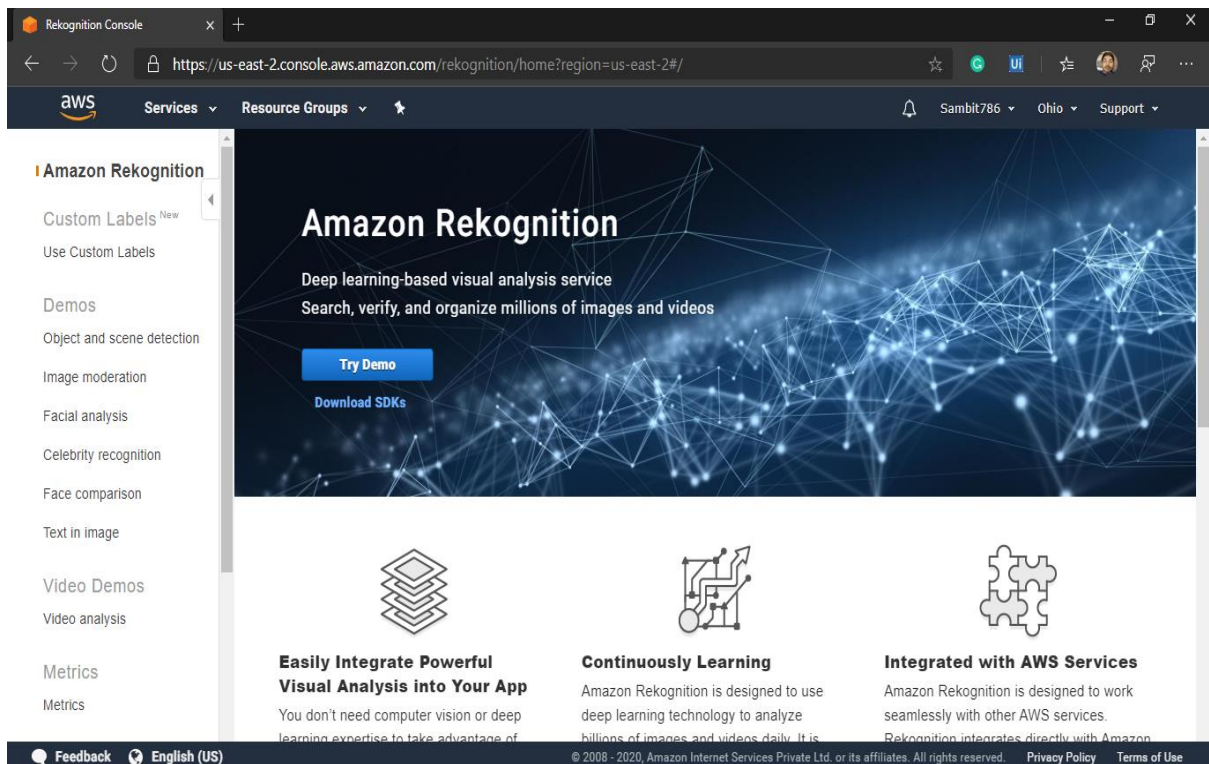


# BUILD FACE DETECTION APP ON AWS

## • S3 DASHBOARD:-



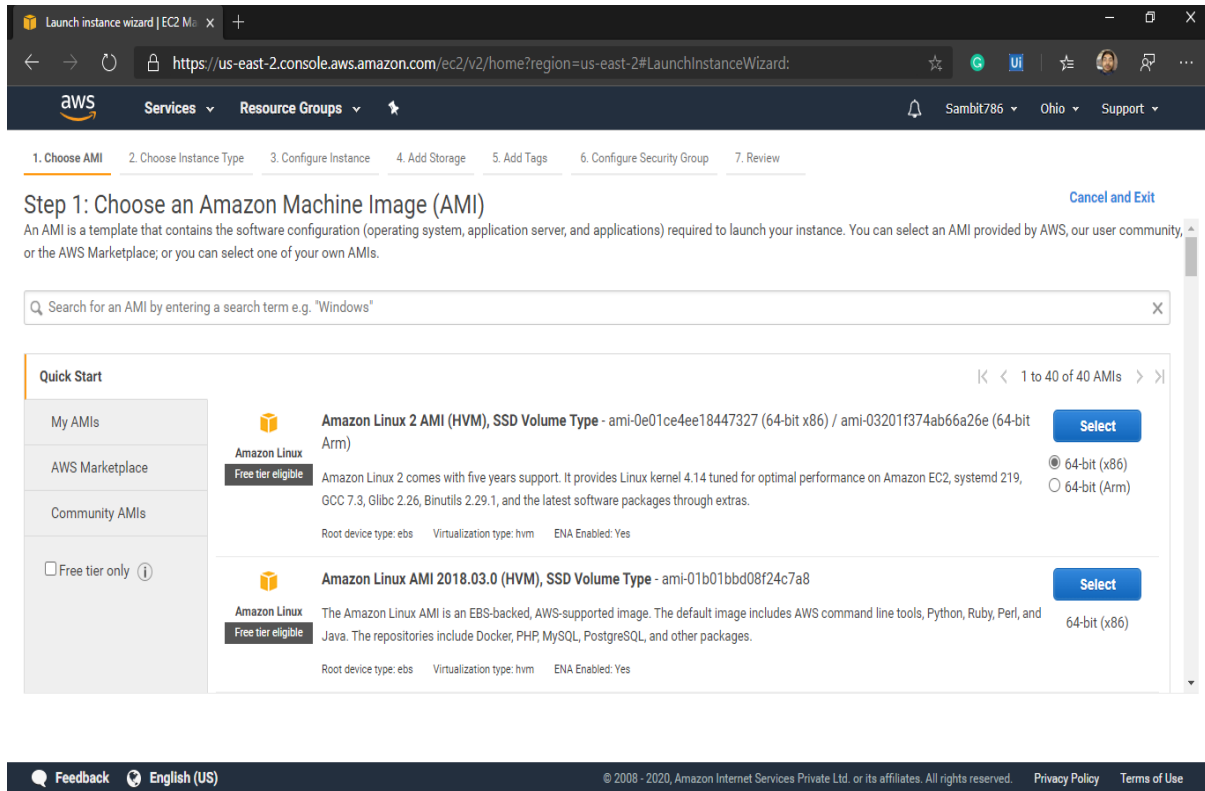
## • REKOGNITION DASHBOARD:-



# **BUILD FACE DETECTION APP ON AWS**

## **STEPS INVOLVED IN CREATING INSTANCES AND CONNECTING TO APACHE SERVER USING EC2:-**

- **AMAZON MACHINE IMAGE (VIRTUAL O.S.):-**



# BUILD FACE DETECTION APP ON AWS

- **INSTANCE TYPE (USAGE OF no. of CPUs and Memory Space):-**

The screenshot shows the AWS Launch Instance Wizard at Step 2: Choose an Instance Type. The breadcrumb trail indicates the steps: 1. Choose AMI, 2. Choose Instance Type (current), 3. Configure Instance, 4. Add Storage, 5. Add Tags, 6. Configure Security Group, and 7. Review. The page title is "Step 2: Choose an Instance Type". Below the title, a paragraph explains that Amazon EC2 provides a wide selection of instance types optimized for different use cases. A "Filter by:" section shows "All instance types" selected, with "Current generation" and "Show/Hide Columns" options. A table lists various instance types, with "t2.micro" selected and marked as "Free tier eligible". The table columns include Family, Type, vCPUs, Memory (GiB), Instance Storage (GB), EBS-Optimized Available, Network Performance, and IPv6 Support. At the bottom, there are buttons for "Cancel", "Previous", "Review and Launch", and "Next: Configure Instance Details".

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
<input type="checkbox"/>	General purpose	t2.xlarge	4	16	EBS only	-	Moderate	Yes

Buttons: Cancel, Previous, Review and Launch, Next: Configure Instance Details

- **ADD STORAGE TO VIRTUAL MACHINE:-**

The screenshot shows the AWS Launch Instance Wizard at Step 4: Add Storage. The breadcrumb trail indicates the steps: 1. Choose AMI, 2. Choose Instance Type, 3. Configure Instance, 4. Add Storage (current), 5. Add Tags, 6. Configure Security Group, and 7. Review. The page title is "Step 4: Add Storage". Below the title, a paragraph explains that the instance will be launched with the following storage device settings. A table shows the storage configuration for the "Root" volume, including Device, Snapshot, Size (GiB), Volume Type, IOPS, Throughput, Delete on Termination, and Encryption. A "Add New Volume" button is present. A note states that free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage. At the bottom, there are buttons for "Cancel", "Previous", "Review and Launch", and "Next: Add Tags".

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

Buttons: Add New Volume, Cancel, Previous, Review and Launch, Next: Add Tags

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.

# BUILD FACE DETECTION APP ON AWS

- **Configuring Security Groups:-**

The screenshot shows the AWS Management Console's Launch Instance Wizard at Step 4: Add Storage. The breadcrumb trail at the top indicates the steps: 1. Choose AMI, 2. Choose Instance Type, 3. Configure Instance, 4. Add Storage (current step), 5. Add Tags, 6. Configure Security Group, and 7. Review. The main heading is "Step 4: Add Storage". Below it, a paragraph explains that the instance will be launched with specific storage settings and that additional EBS volumes can be attached. A table lists the storage configuration for the root volume:

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

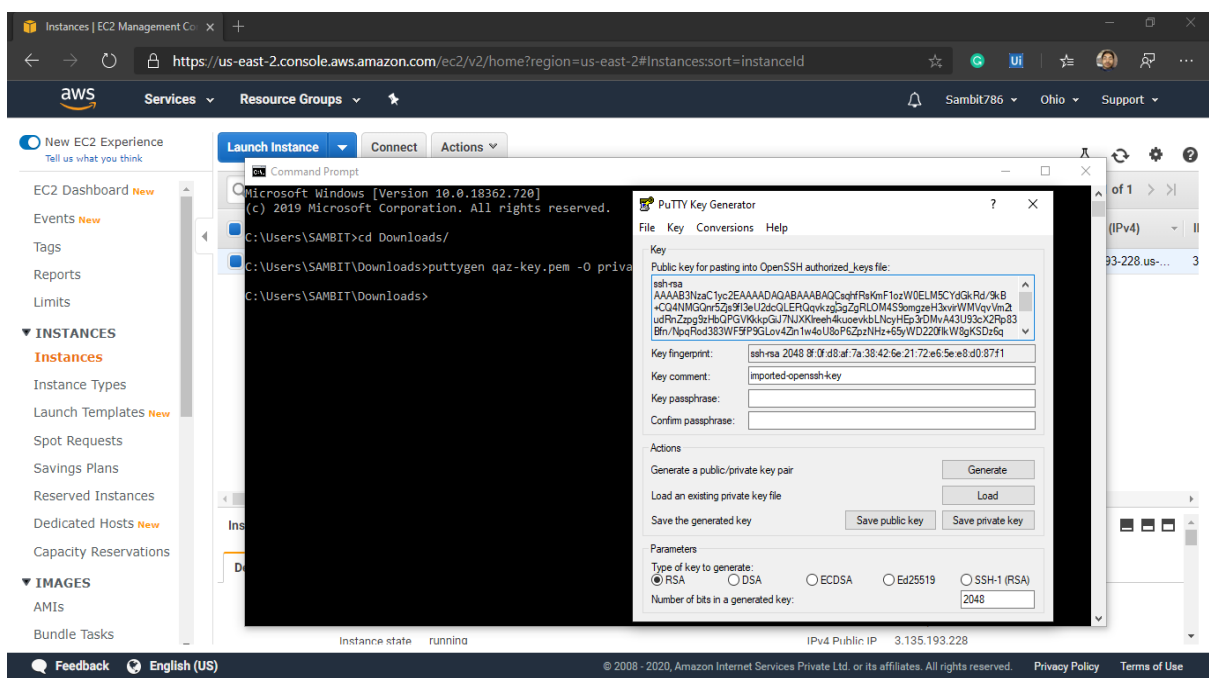
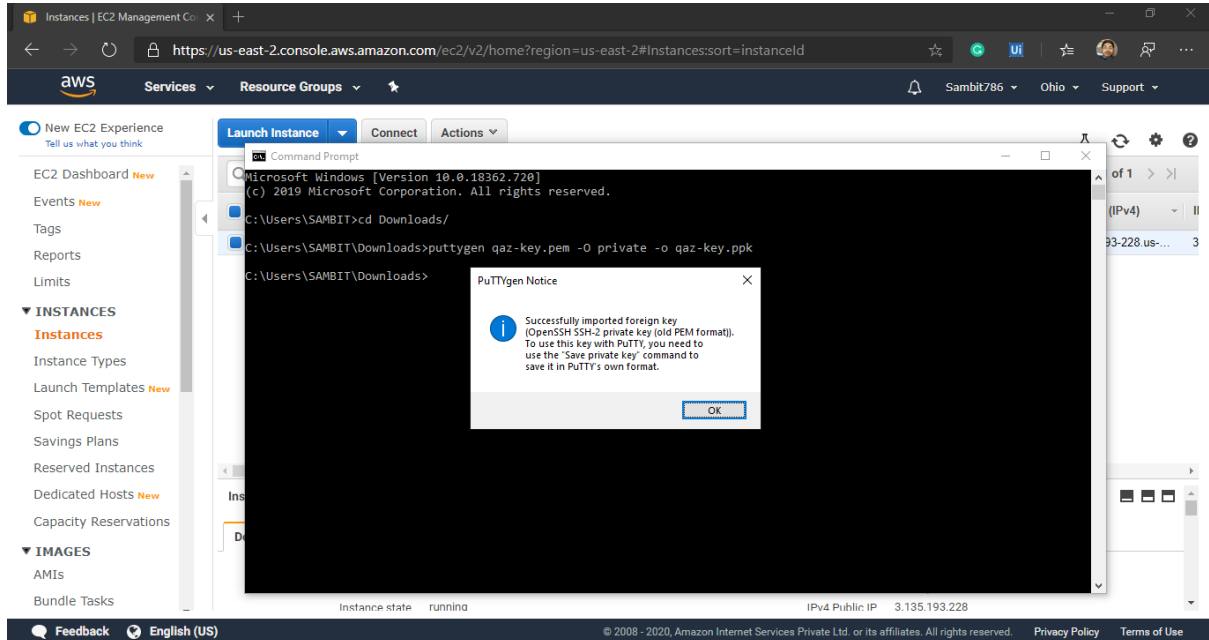
Below the table is an "Add New Volume" button. A blue box contains a note: "Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage. [Learn more](#) about free usage tier eligibility and usage restrictions." At the bottom right, there are buttons for "Cancel", "Previous", "Review and Launch", and "Next: Add Tags". The footer includes "Feedback", "English (US)", and copyright information for Amazon Internet Services Private Ltd.

- **KEY-PAIR DOWNLOAD:-**

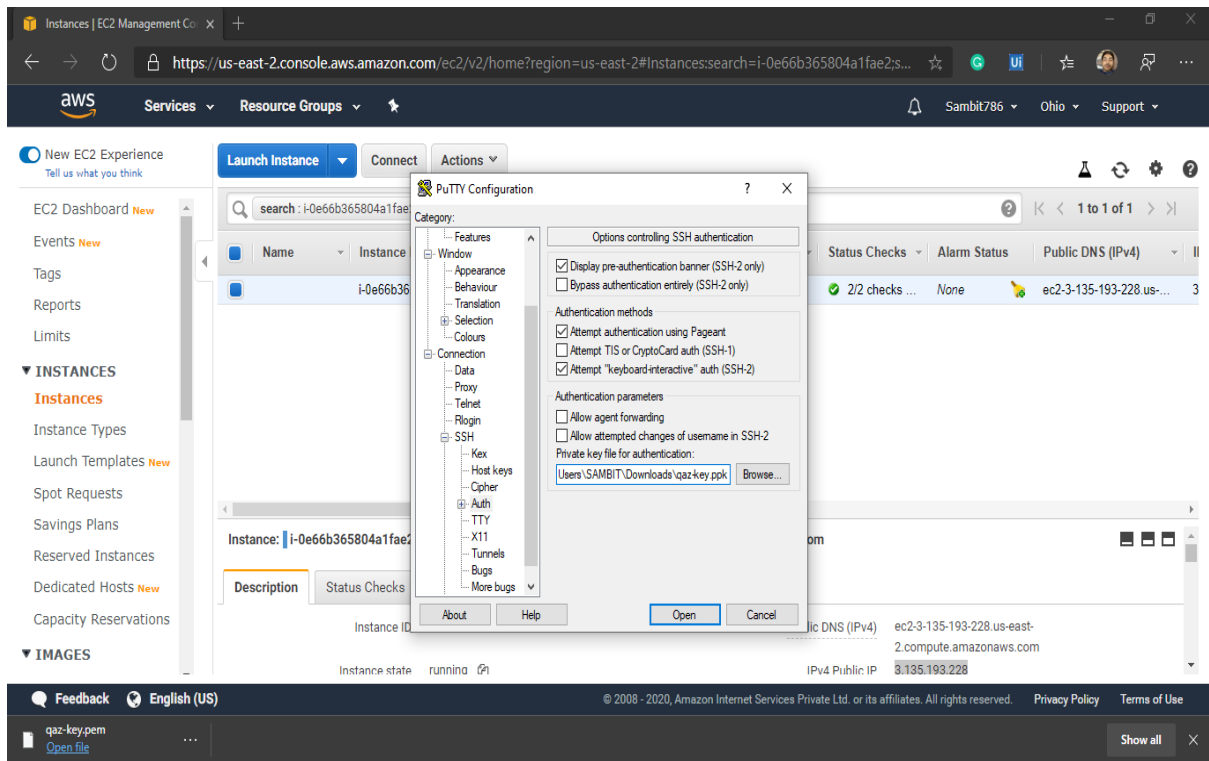
The screenshot shows the AWS Management Console's Launch Instance Wizard at Step 7: Review Instance Launch. A modal dialog titled "Select an existing key pair or create a new key pair" is open in the center. The dialog explains that a key pair consists of a public key stored by AWS and a private key file stored by the user. It includes a note that the selected key pair will be added to the set of keys authorized for the instance. Below the text, there is a dropdown menu set to "Create a new key pair", a text input field for "Key pair name" containing "qaz-key", and a "Download Key Pair" button. A blue box at the bottom of the dialog states: "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." The background shows the "Review" step of the wizard, with buttons for "Cancel", "Previous", and "Launch". The footer includes "Feedback", "English (US)", and copyright information.

# BUILD FACE DETECTION APP ON AWS

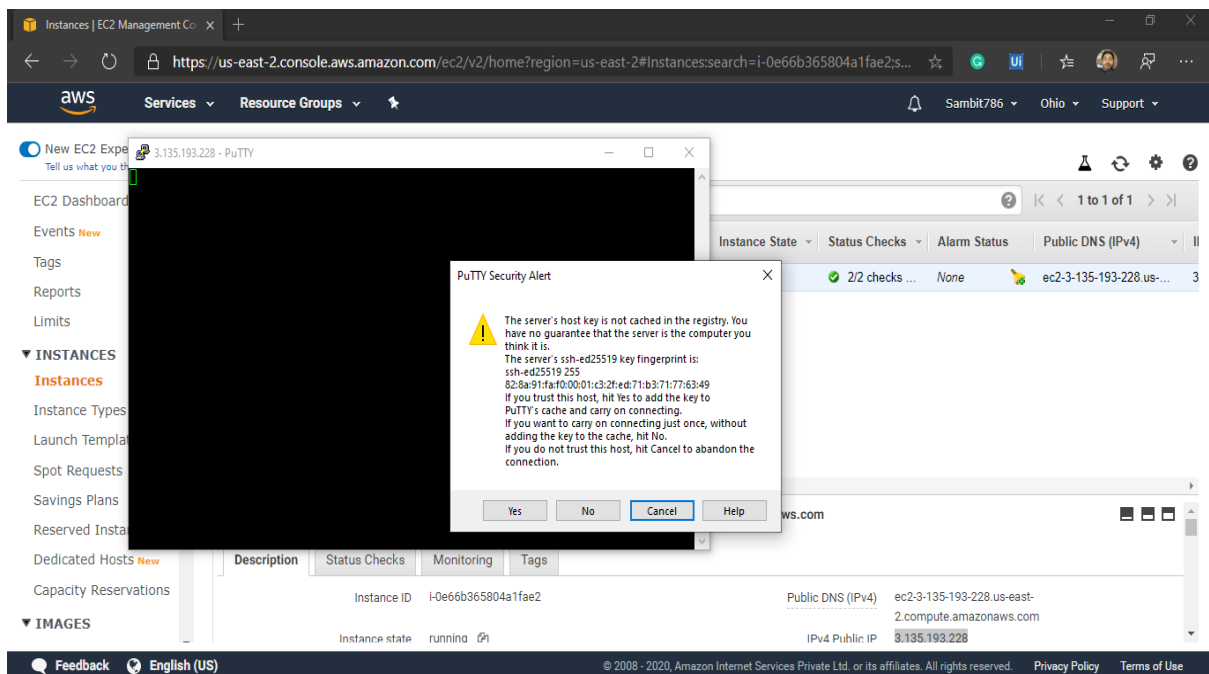
- **PUTTYGEN CONVERSION FROM .pem to .ppk:-**



# BUILD FACE DETECTION APP ON AWS



- **LOGGED IN EC2 BLACK PUTTY SOFTWARE SCREEN:-**



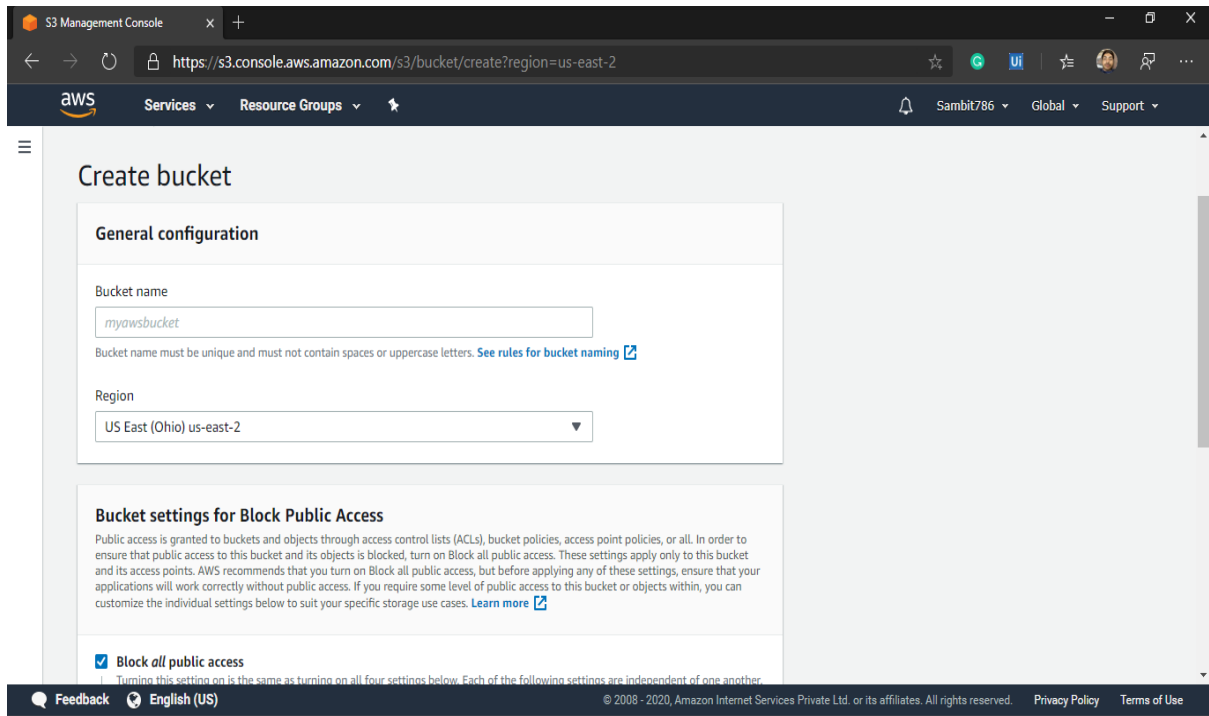


The screenshot displays the AWS Management Console interface. The top navigation bar shows the 'Instances | EC2 Management Console' title. The left sidebar contains navigation links for 'EC2 Dashboard', 'Events', 'Tags', 'Reports', 'Limits', 'INSTANCES', 'IMAGES', and 'Bundle Tasks'. The main content area shows the 'Launch Instance' button and a table of instances. The table has columns for Name, Instance ID, Instance Type, Availability Zone, Instance State, Status Checks, Alarm Status, and Public DNS (IPv4). One instance is listed: 'ec2-3-135-193-228 us-east-2' with a state of 'running'. A terminal window is overlaid on the instance details, showing the login process for 'ec2-user' on 'ip-172-31-1-242'. The terminal output includes the login prompt, authentication success message, and the Amazon Linux 2 AMI logo. The terminal also shows the URL 'https://aws.amazon.com/amazon-linux-2/' and the prompt '[ec2-user@ip-172-31-1-242 ~]#'. The bottom of the terminal shows the instance state 'running' and the IPv4 Public IP '3.135.193.228'.

# BUILD FACE DETECTION APP ON AWS

## STEPS INVOLVED IN TASKING S3 AND ITS BUCKETS:-

- **CREATING A BUCKET:-**



S3 Management Console

https://s3.console.aws.amazon.com/s3/bucket/create?region=us-east-2

### Create bucket

**General configuration**

Bucket name  
myowsbucket

Bucket name must be unique and must not contain spaces or uppercase letters. [See rules for bucket naming](#)

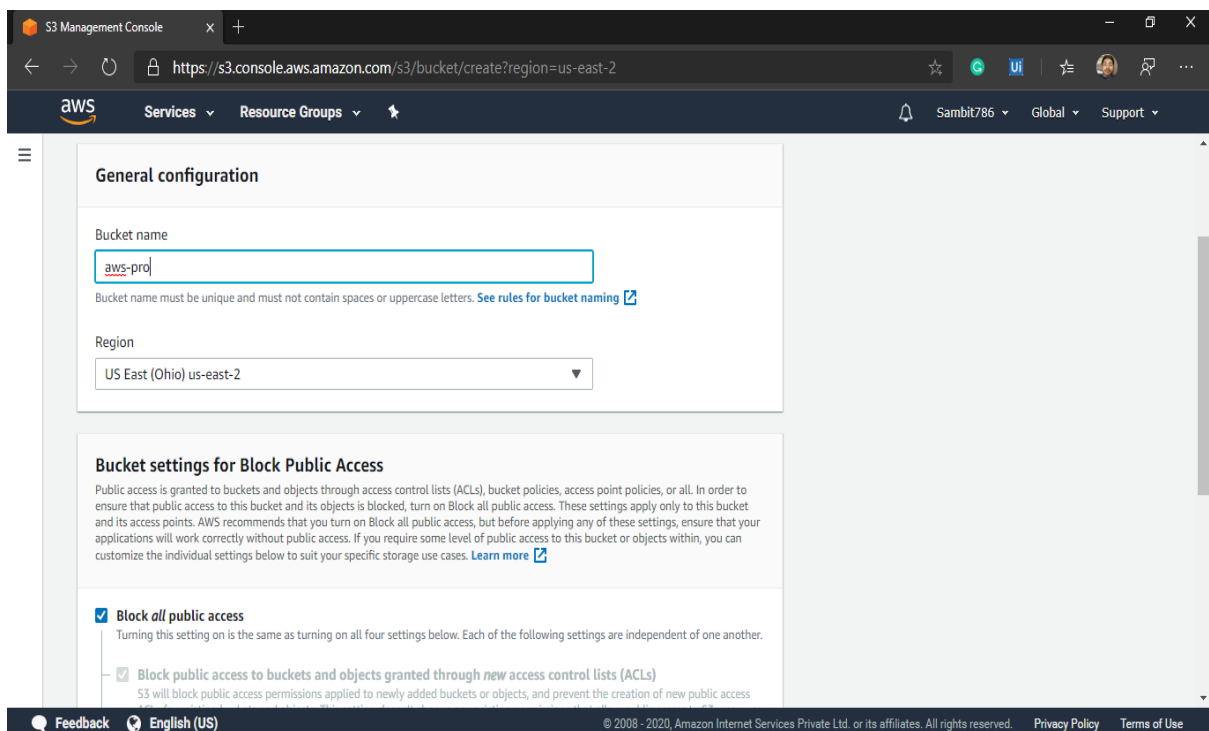
Region  
US East (Ohio) us-east-2

**Bucket settings for Block Public Access**

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 this bucket and its 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 this bucket 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.

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S3 Management Console

https://s3.console.aws.amazon.com/s3/bucket/create?region=us-east-2

### Create bucket

**General configuration**

Bucket name  
aws-pro

Bucket name must be unique and must not contain spaces or uppercase letters. [See rules for bucket naming](#)

Region  
US East (Ohio) us-east-2

**Bucket settings for Block Public Access**

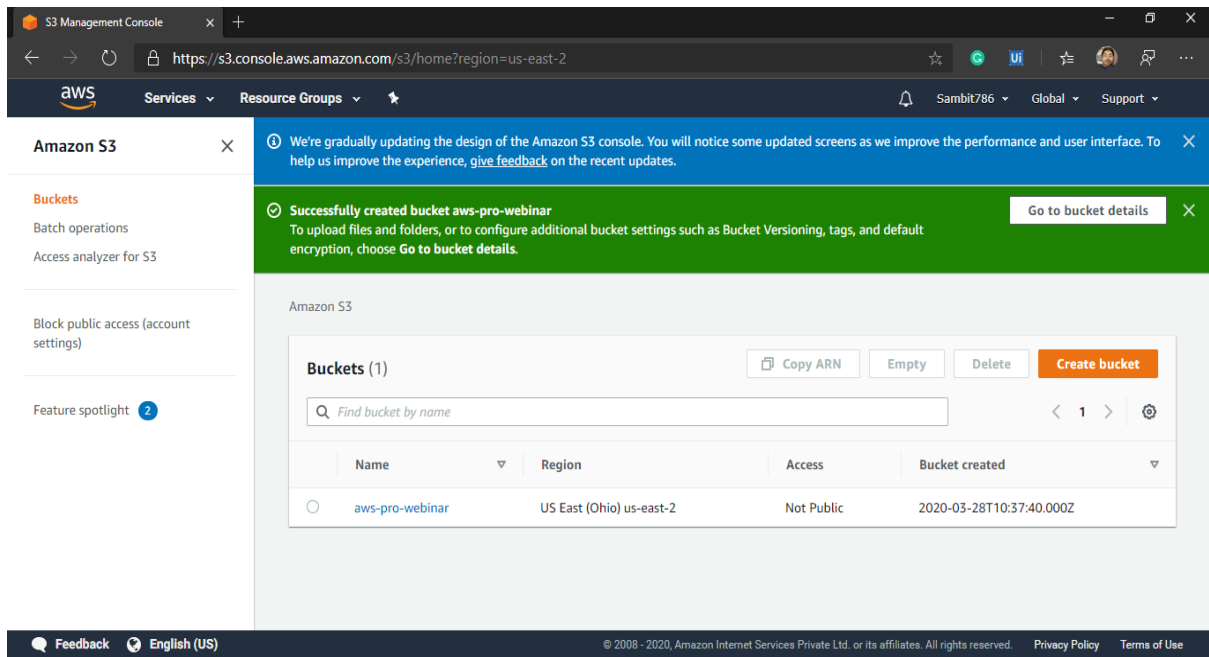
Public access is granted to buckets and objects through access control lists (ACLs), bucket policies, access point policies, or all. In order to ensure that public access to this bucket and its objects is blocked, turn on Block all public access. These settings apply only to this bucket and its access 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 this bucket 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.

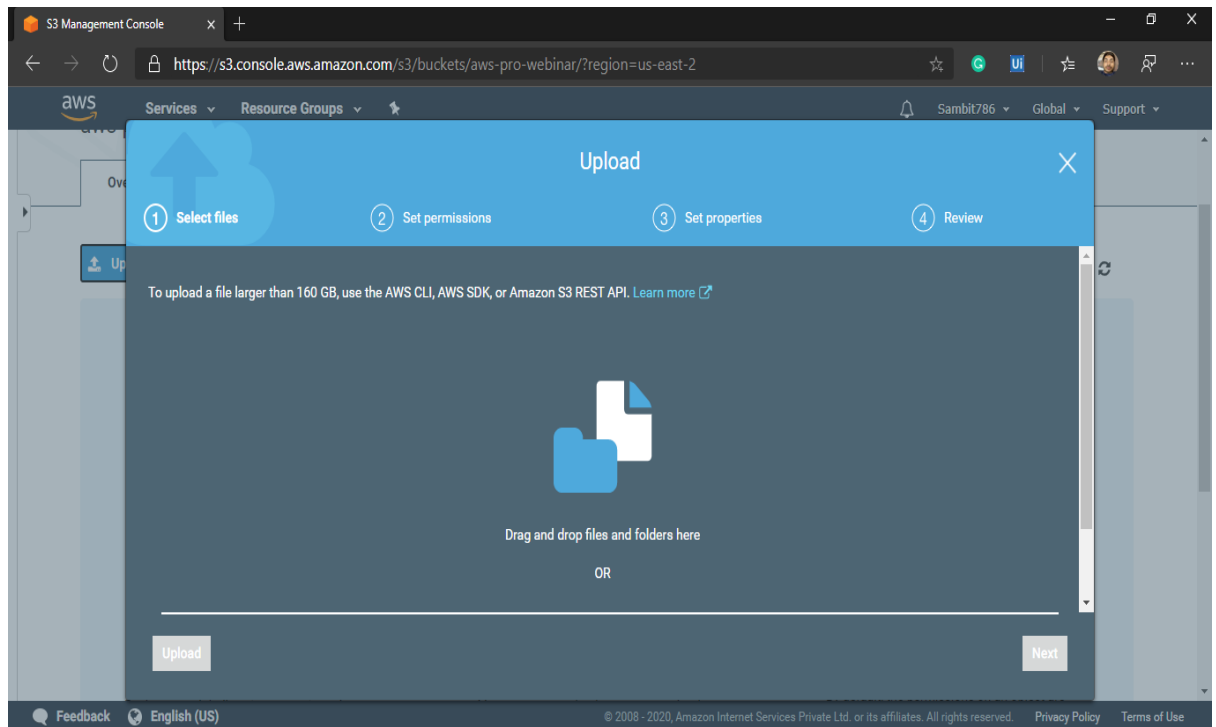
☒ **Block public access to buckets and objects granted through new access control lists (ACLs)**  
S3 will block public access permissions applied to newly added buckets or objects, and prevent the creation of new public access

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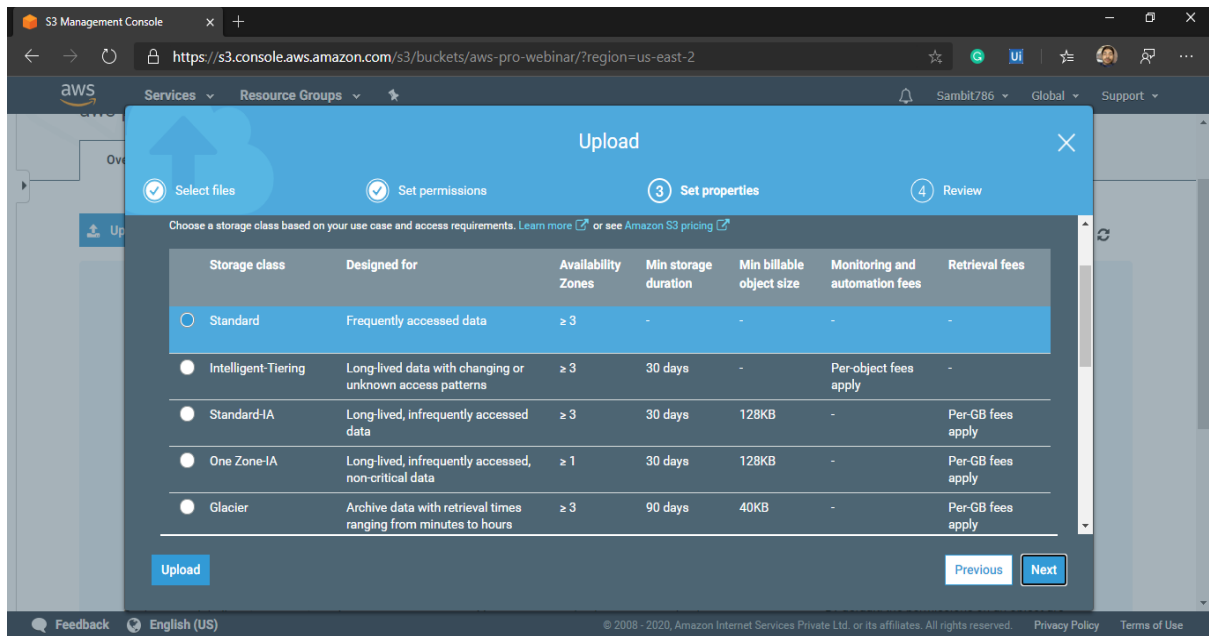
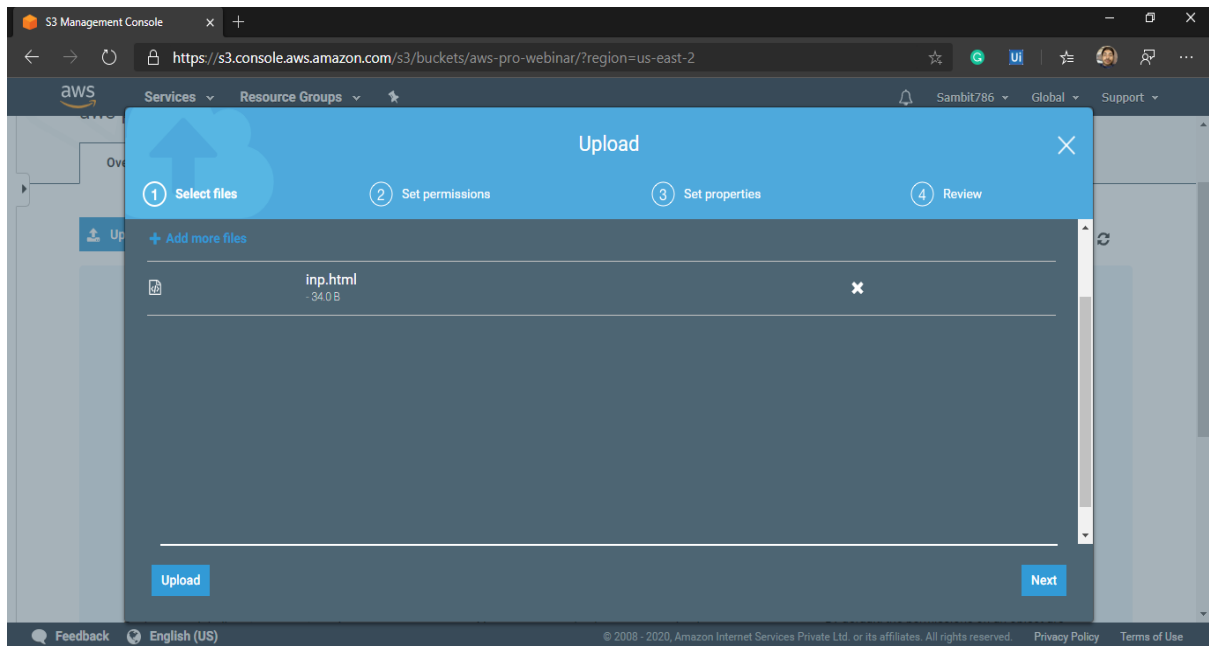
# BUILD FACE DETECTION APP ON AWS



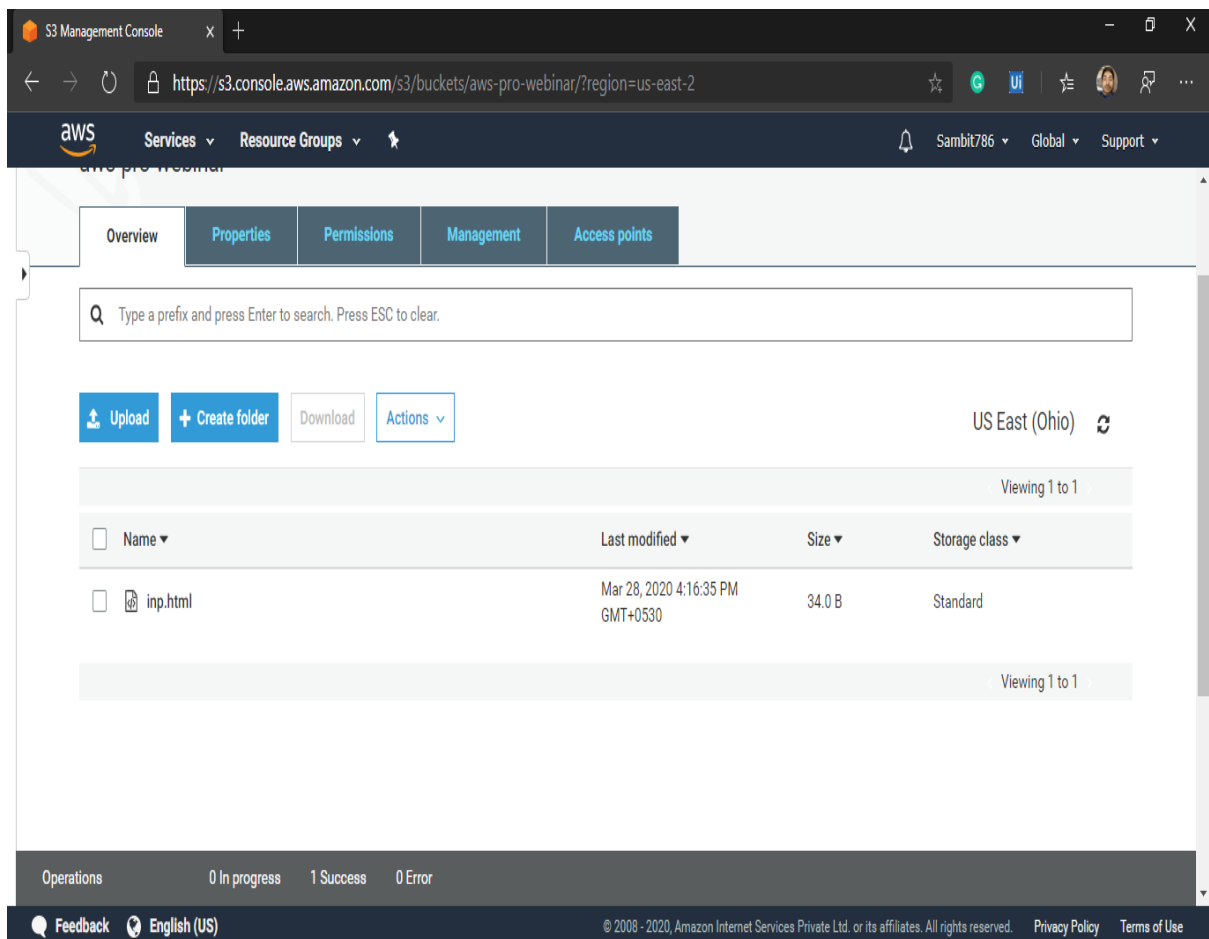
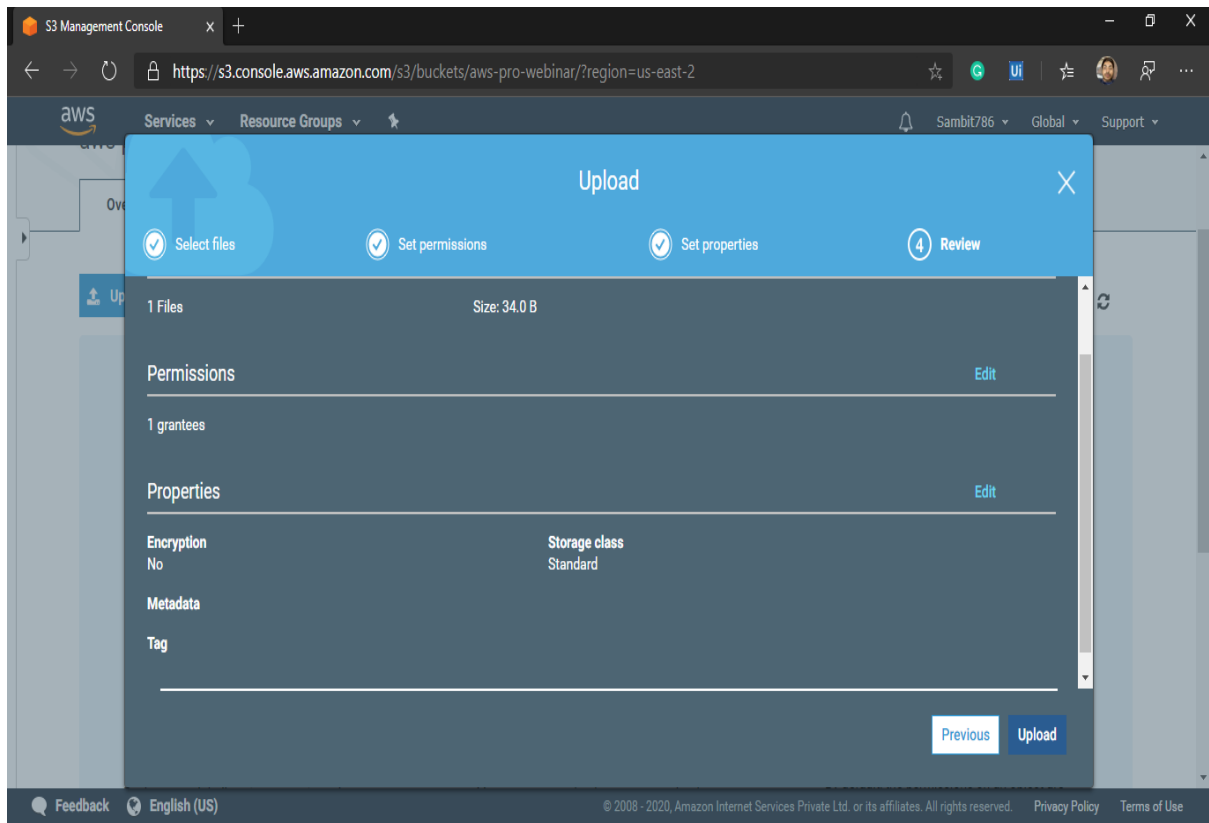
## • UPLOADING AN OBJECT INTO THE BUCKET:-



# BUILD FACE DETECTION APP ON AWS

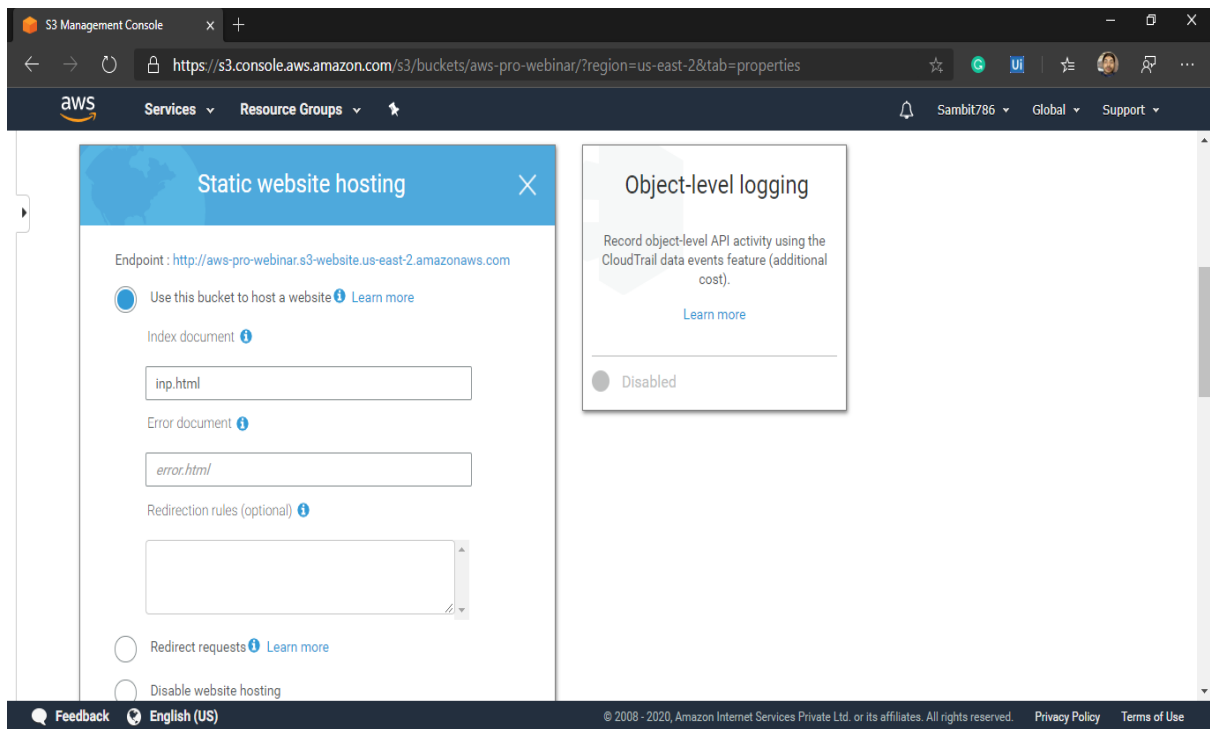


# BUILD FACE DETECTION APP ON AWS

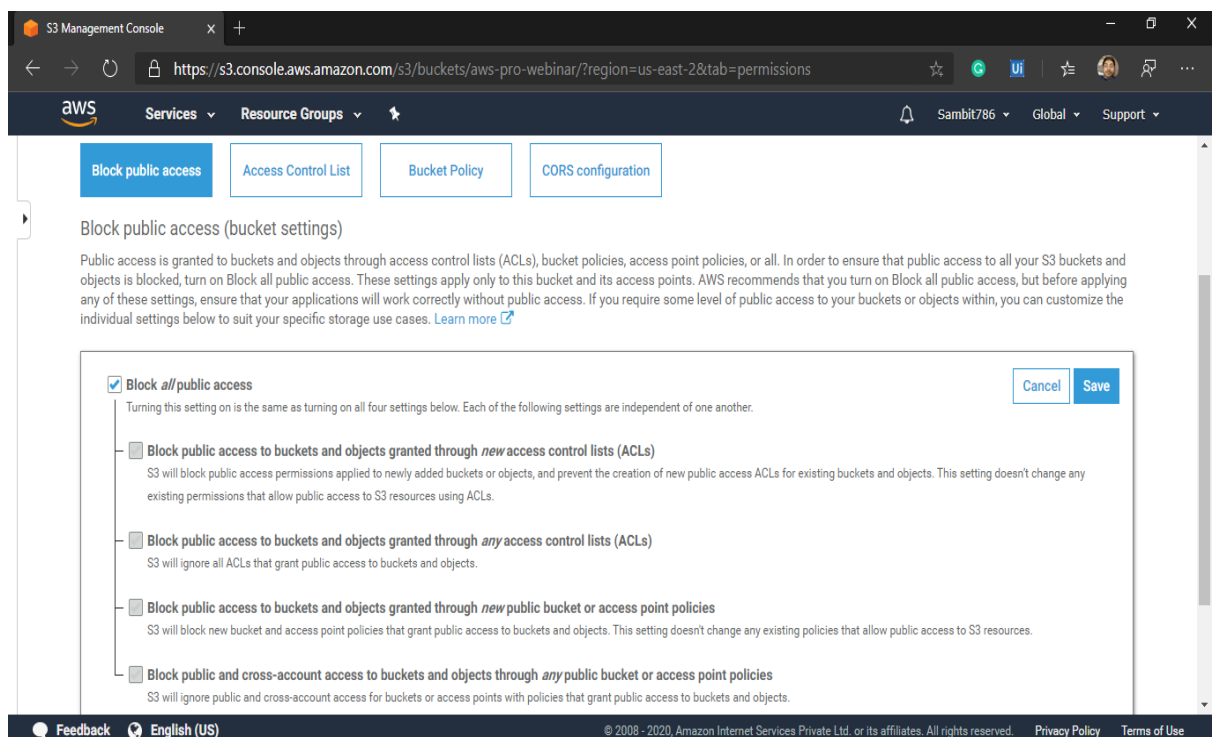


# BUILD FACE DETECTION APP ON AWS

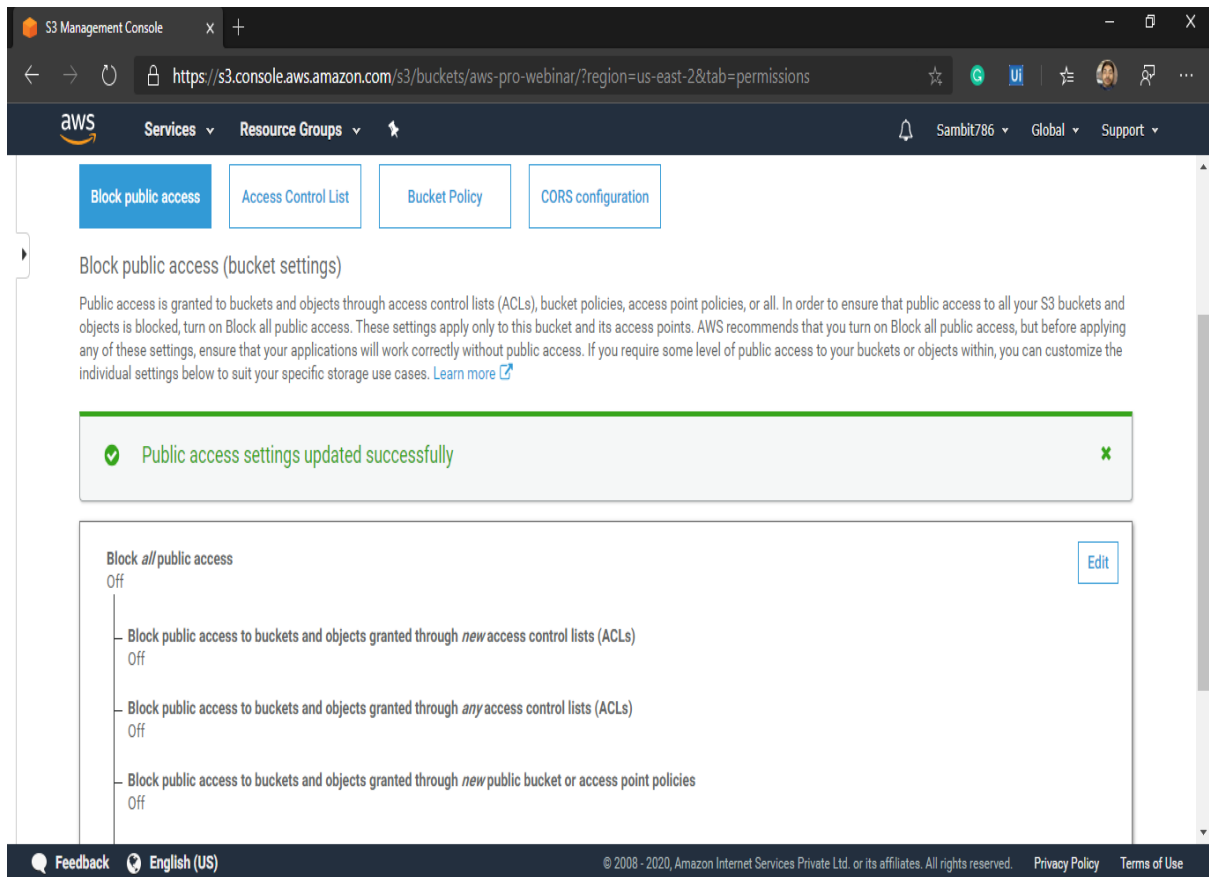
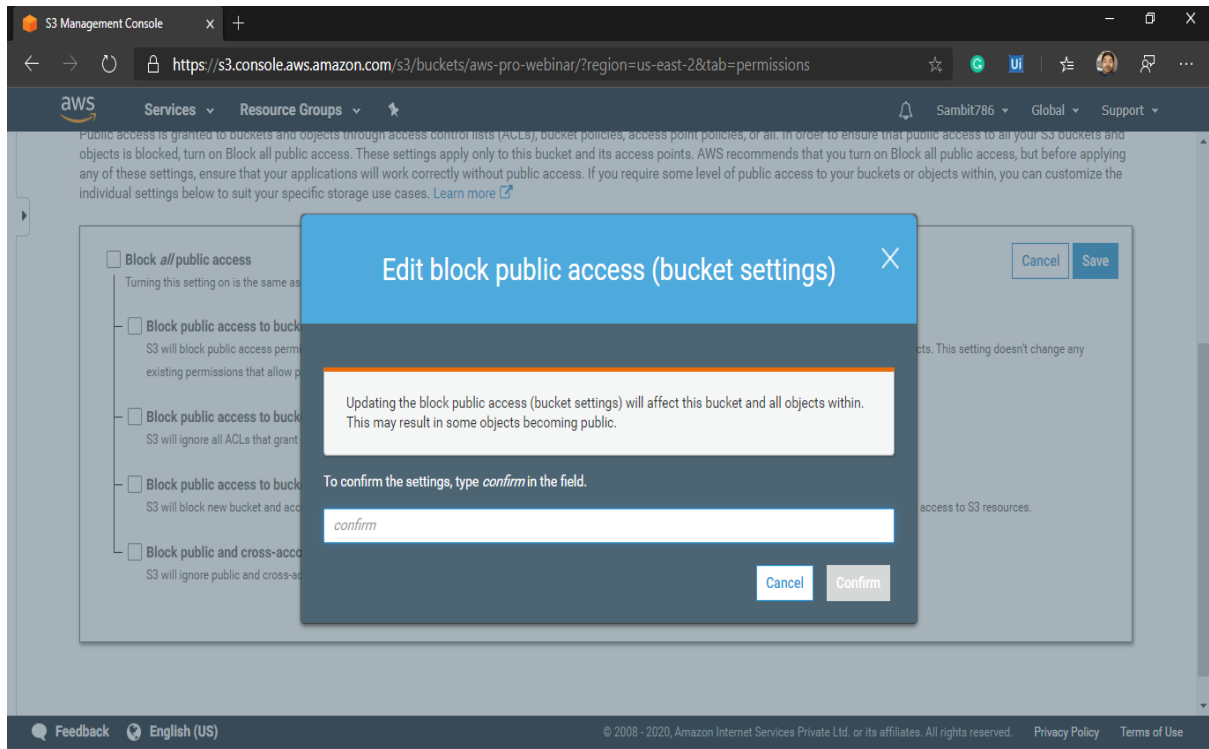
## • ENABLING STATIC WEBSITE:-



## • MAKING THE OBJECT PUBLIC:-



# BUILD FACE DETECTION APP ON AWS



# BUILD FACE DETECTION APP ON AWS

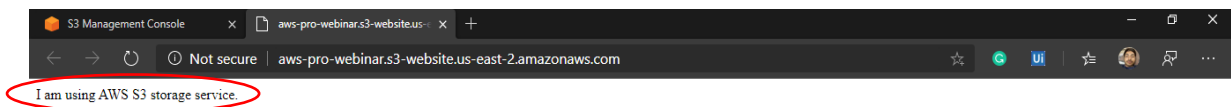
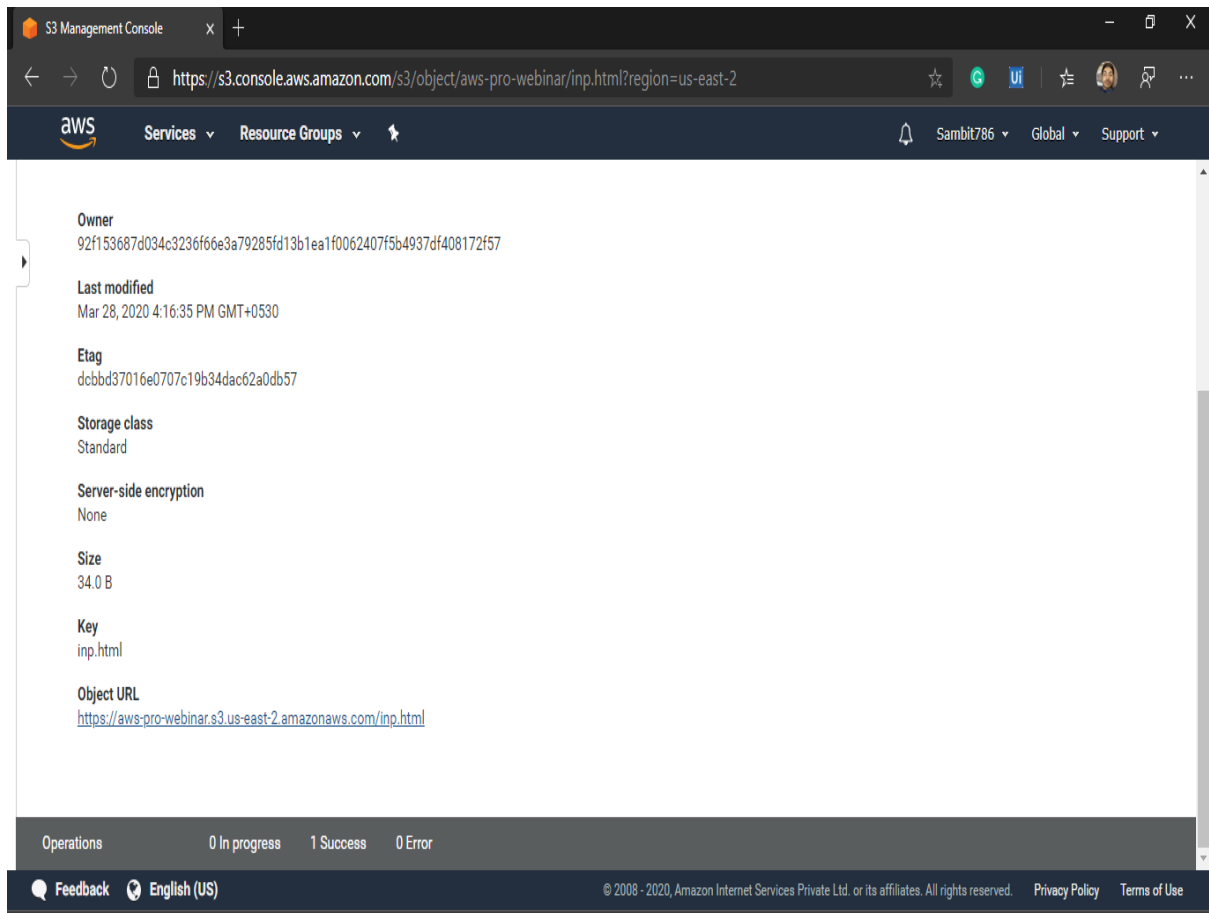
This screenshot shows the AWS S3 console interface for the file 'inp.html'. The breadcrumb navigation at the top indicates the path: Amazon S3 > aws-pro-webinar > inp.html. The file name 'inp.html' is displayed with a 'Latest version' dropdown. Below this, there are four tabs: 'Overview' (selected), 'Properties', 'Permissions', and 'Select from'. Under the 'Overview' tab, there are five buttons: 'Open', 'Download', 'Download as', 'Make public' (highlighted in blue), and 'Copy path'. The file's metadata is listed below: Owner (92f153687d034c3236f66e3a79285fd13b1ea1f0062407f5b4937df408172f57), Last modified (Mar 28, 2020 4:16:35 PM GMT+0530), Etag (dcbbd37016e0707c19b34dac62a0db57), Storage class (Standard), and Server-side encryption (None). The footer includes a 'Feedback' button, 'English (US)' language selection, and copyright information: © 2008 - 2020, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. Privacy Policy Terms of Use.

This screenshot shows the AWS S3 console interface for the file 'inp.html' after a successful operation. The breadcrumb navigation at the top indicates the path: Amazon S3 > aws-pro-webinar > inp.html. The file name 'inp.html' is displayed with a 'Latest version' dropdown. Below this, there are four tabs: 'Overview' (selected), 'Properties', 'Permissions', and 'Select from'. Under the 'Overview' tab, there is a green success message box that says 'Success'. Below the message box, there are five buttons: 'Open', 'Download', 'Download as', 'Make public' (highlighted in blue), and 'Copy path'. The file's metadata is listed below: Owner (92f153687d034c3236f66e3a79285fd13b1ea1f0062407f5b4937df408172f57), Last modified (Mar 28, 2020 4:16:35 PM GMT+0530), Etag (dcbbd37016e0707c19b34dac62a0db57), Storage class (Standard), and Server-side encryption (None). At the bottom, there is a status bar showing 'Operations' with '0 In progress', '1 Success', and '0 Error'. The footer includes a 'Feedback' button, 'English (US)' language selection, and copyright information: © 2008 - 2020, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. Privacy Policy Terms of Use.



# BUILD FACE DETECTION APP ON AWS

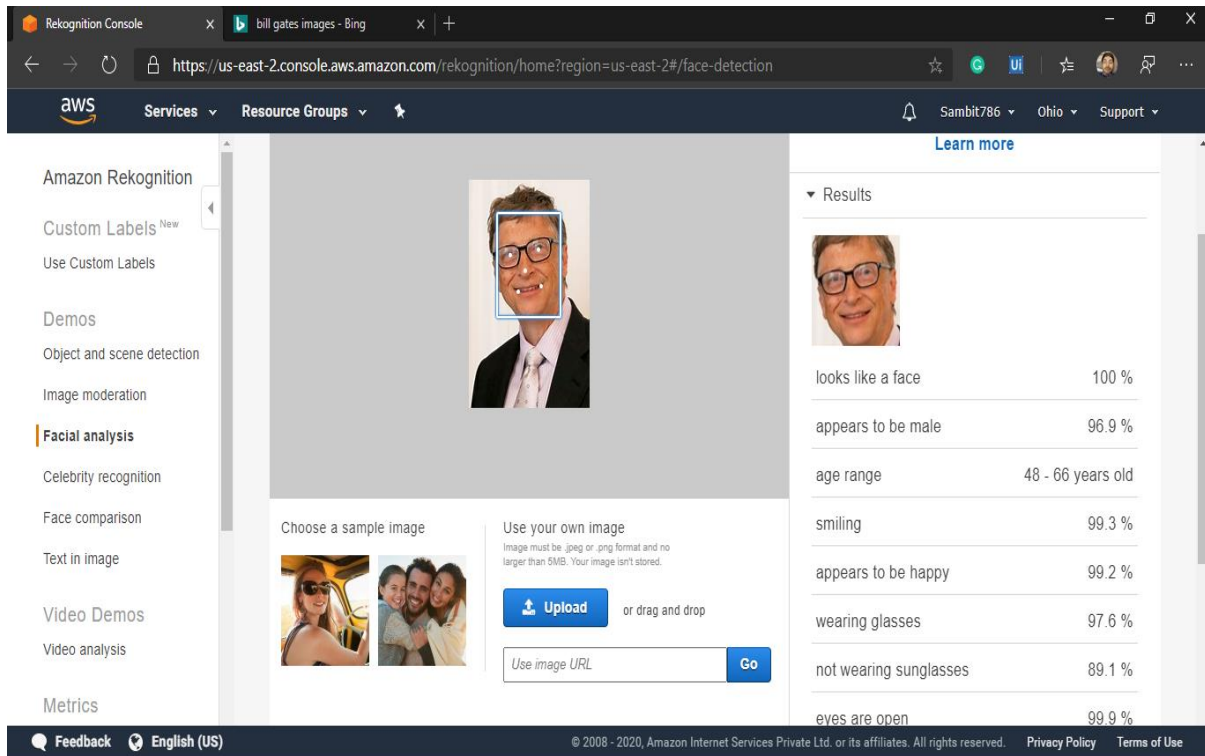
- **CREATING S3 LINK ON THE BROWSER:-**



# **BUILD FACE DETECTION APP ON AWS**

## **STEPS INVOLVED IN TASKING THE AWS REKOGNITION SERVICE:-**

- **FACE DETECT:-**



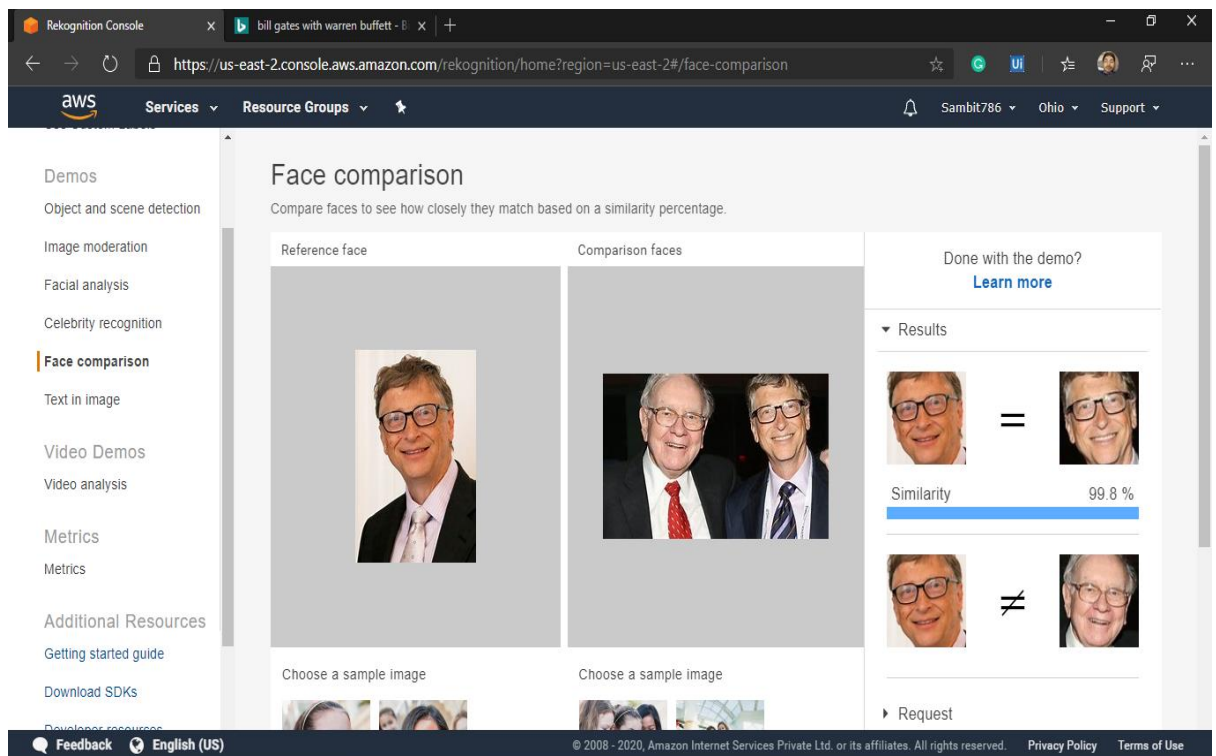
The screenshot displays the AWS Rekognition Console interface. On the left, a navigation menu lists various services including Amazon Rekognition, Custom Labels, Demos, Object and scene detection, Image moderation, Facial analysis (highlighted), Celebrity recognition, Face comparison, Text in image, Video Demos, Video analysis, and Metrics. The main content area shows a 'Choose a sample image' section with two thumbnails and a 'Use your own image' section with an 'Upload' button and a 'Use image URL' field. A large image of Bill Gates is displayed in the center, with a blue bounding box around his face. To the right, a 'Results' section lists detected features with their confidence percentages:

Feature	Confidence
looks like a face	100 %
appears to be male	96.9 %
age range	48 - 66 years old
smiling	99.3 %
appears to be happy	99.2 %
wearing glasses	97.6 %
not wearing sunglasses	89.1 %
eyes are open	99.9 %

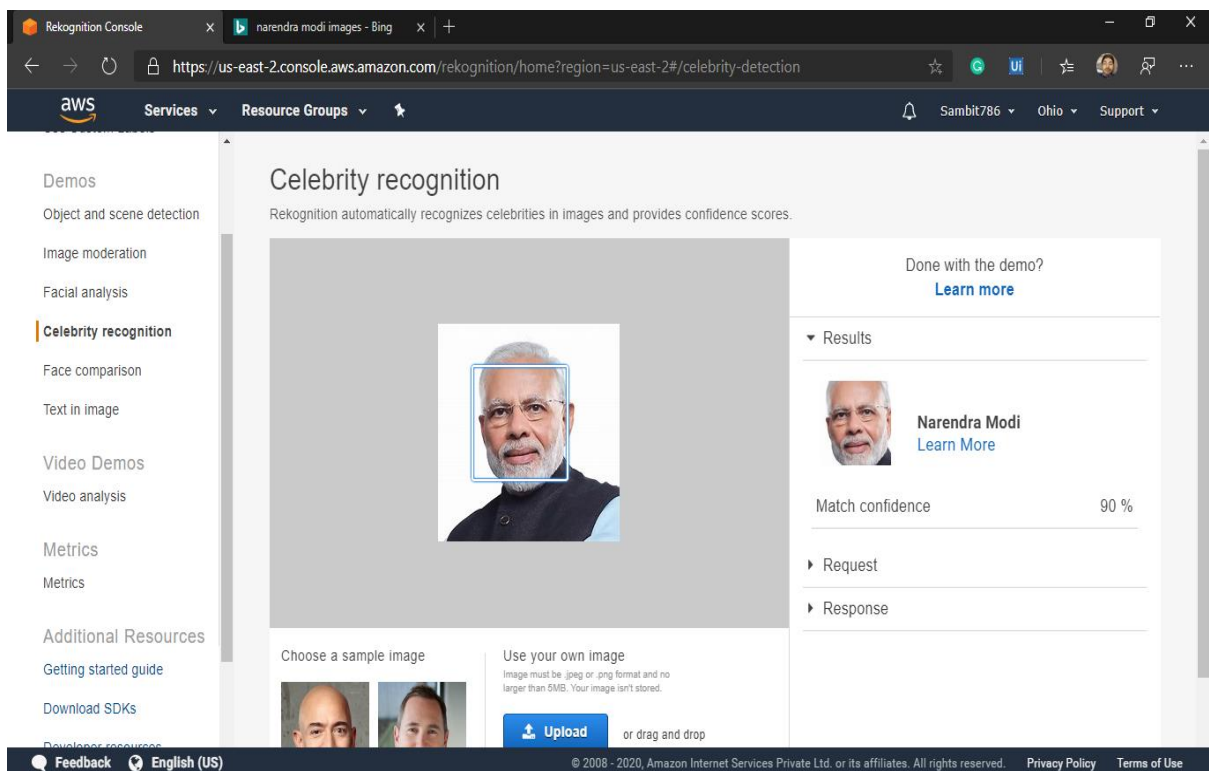
The footer of the console includes a 'Feedback' link, 'English (US)' language selection, and copyright information: '© 2008 - 2020, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved.' It also links to 'Privacy Policy' and 'Terms of Use'.

# BUILD FACE DETECTION APP ON AWS

- **FACE COMPARISON:-**

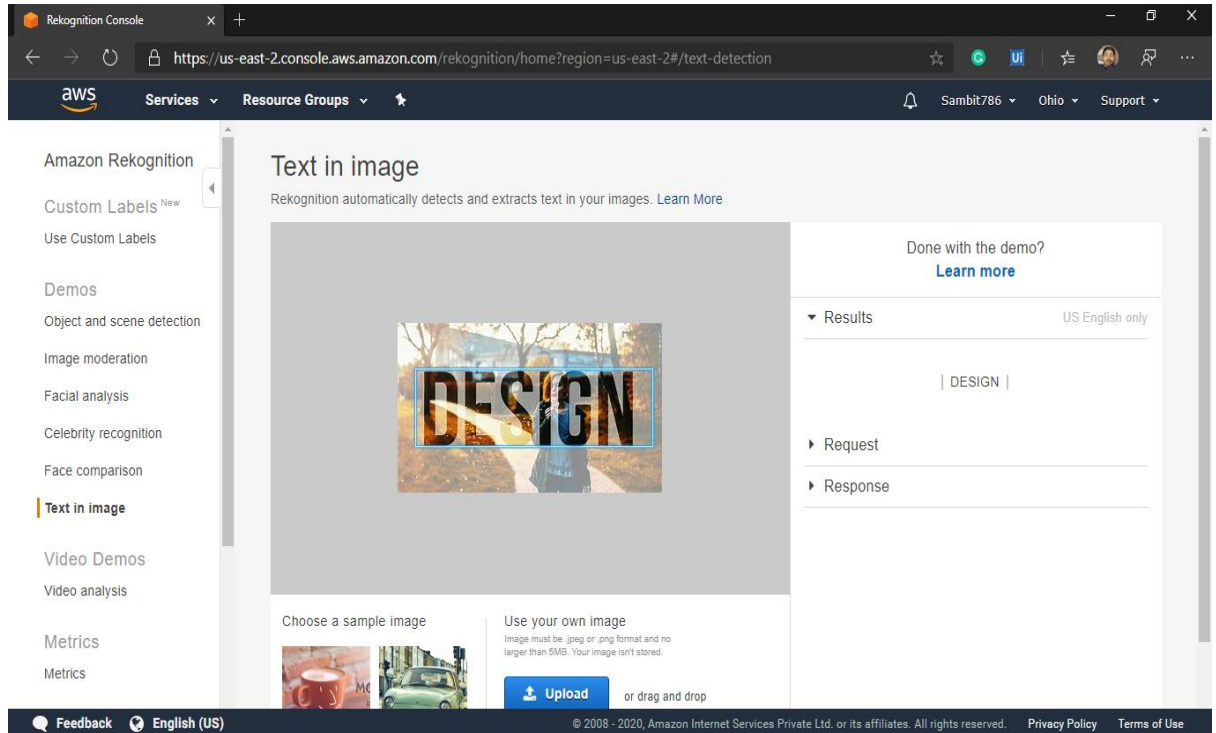


- **CELEBRITY RECOGNITION:-**



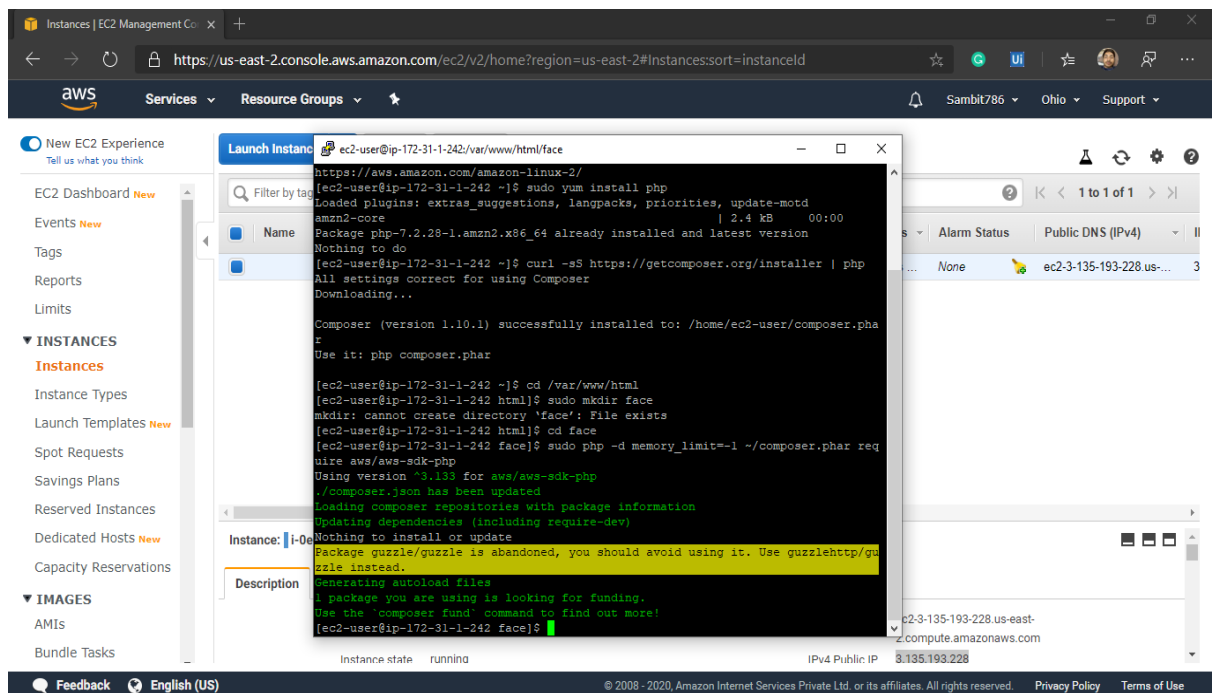
# BUILD FACE DETECTION APP ON AWS

- **TEXT IN IMAGE:-**



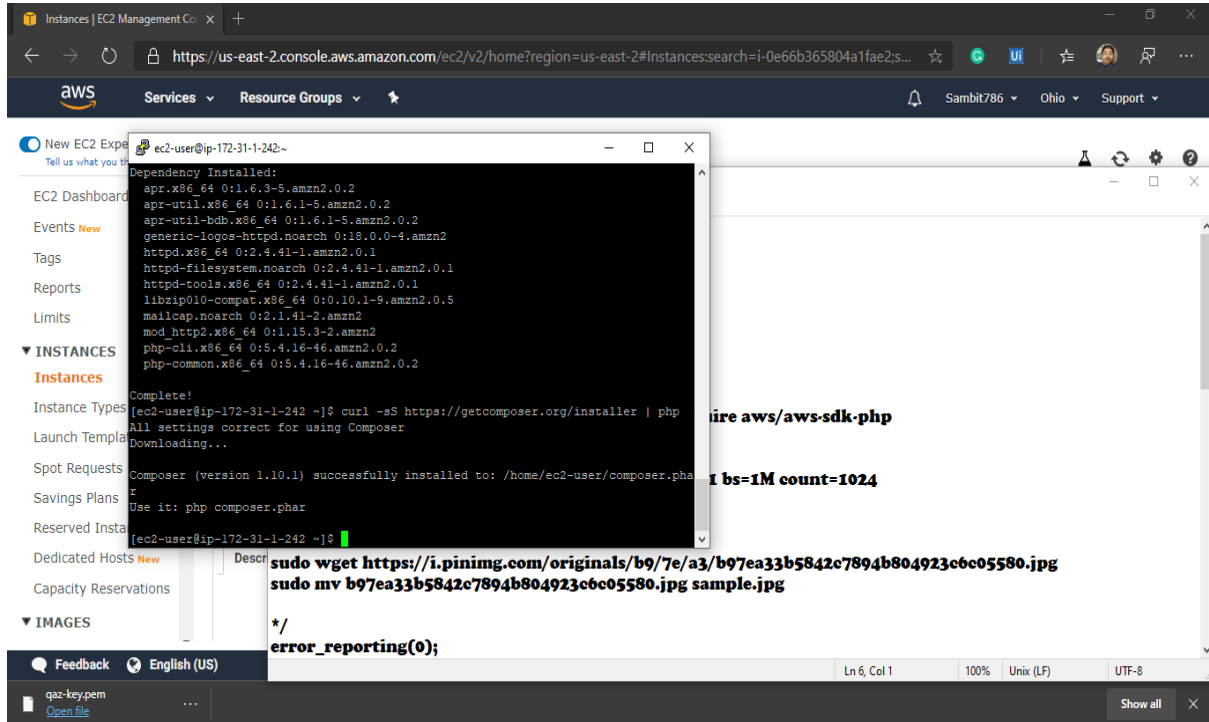
## STEPS INVOLVED IN LINKING THE EC2 AND S3 SERVICES FROM AWS:-

- **INSTALLING AWS-SDK:-**

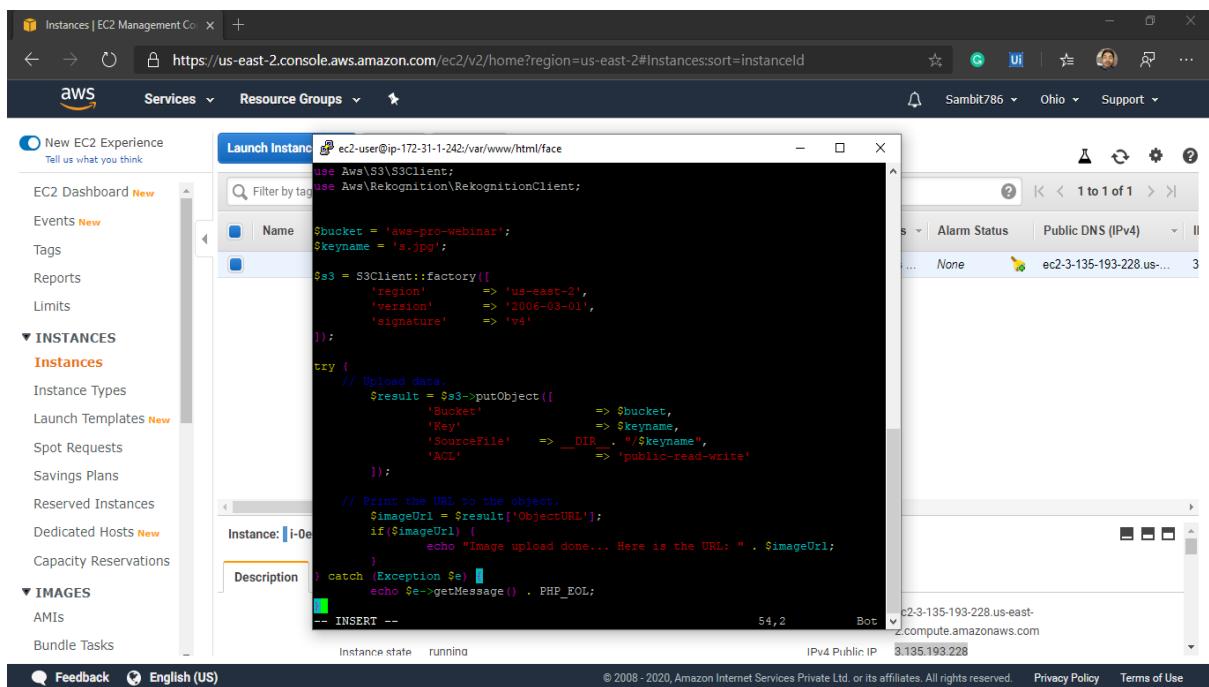


# BUILD FACE DETECTION APP ON AWS

## • INSTALLING PHP:-



## • INDEX.PHP FILE CODE IN PUTTY:-



# BUILD FACE DETECTION APP ON AWS

```
*index - Notepad
File Edit Format View Help
sudo /sbin/swapon /var/swap.1

sudo wget https://i.pinimg.com/originals/b9/7e/a3/b97ea33b5842c7894b804923c6c05580.jpg
sudo mv b97ea33b5842c7894b804923c6c05580.jpg s.jpg

*/
error_reporting(0);

require_once(__DIR__ . '/vendor/autoload.php');

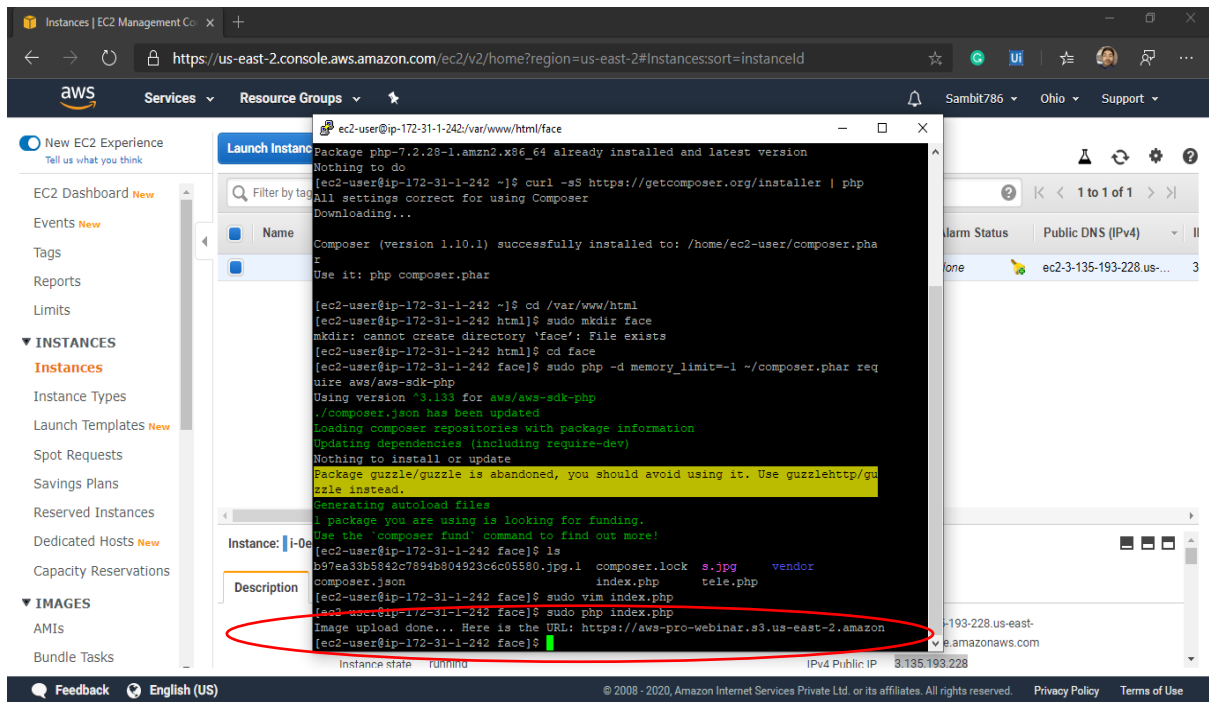
use Aws\S3\S3Client;
use Aws\Rekognition\RekognitionClient;

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

$s3 = S3Client::factory([
    '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'
    ]);
}
```

## • UPLOAD SUCCESS SCREESHOT:-



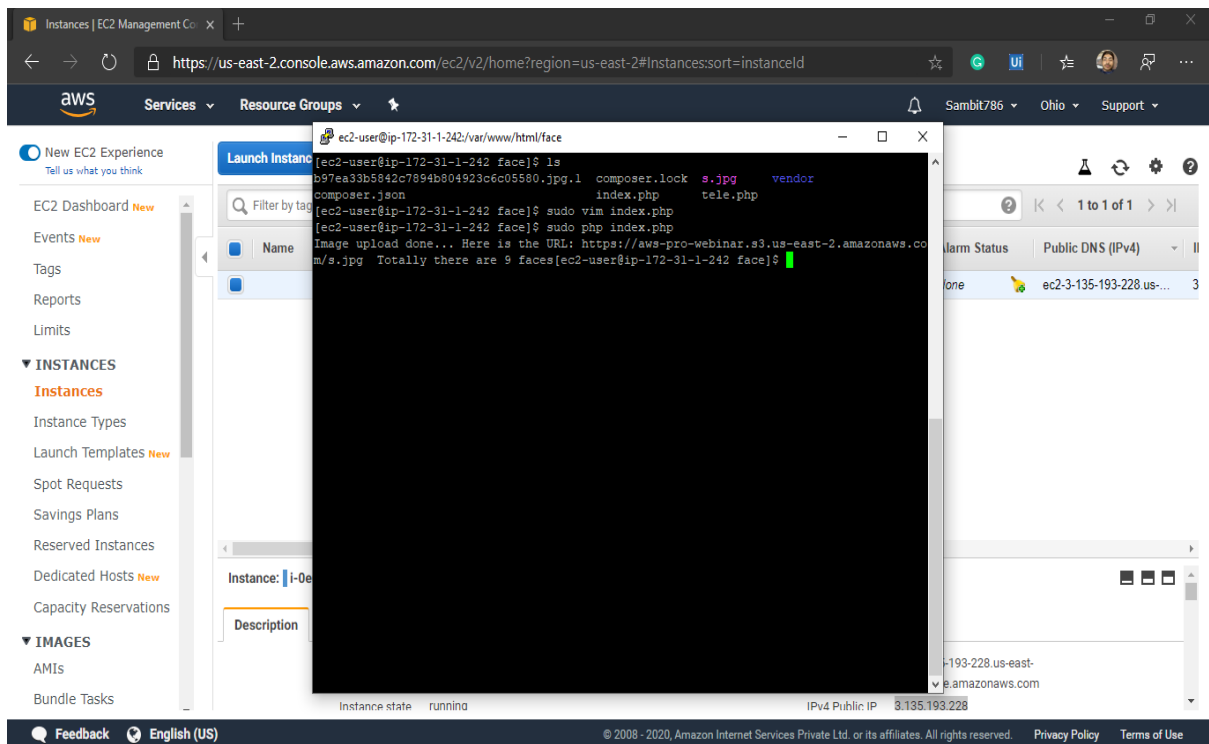


# BUILD FACE DETECTION APP ON AWS



## EC2-REKOGNITION LINK:-

### • FACE DETECT SUCCESS SCREENSHOT:-



**-X—END—X-**

# **BUILD FACE DETECTION APP ON AWS**