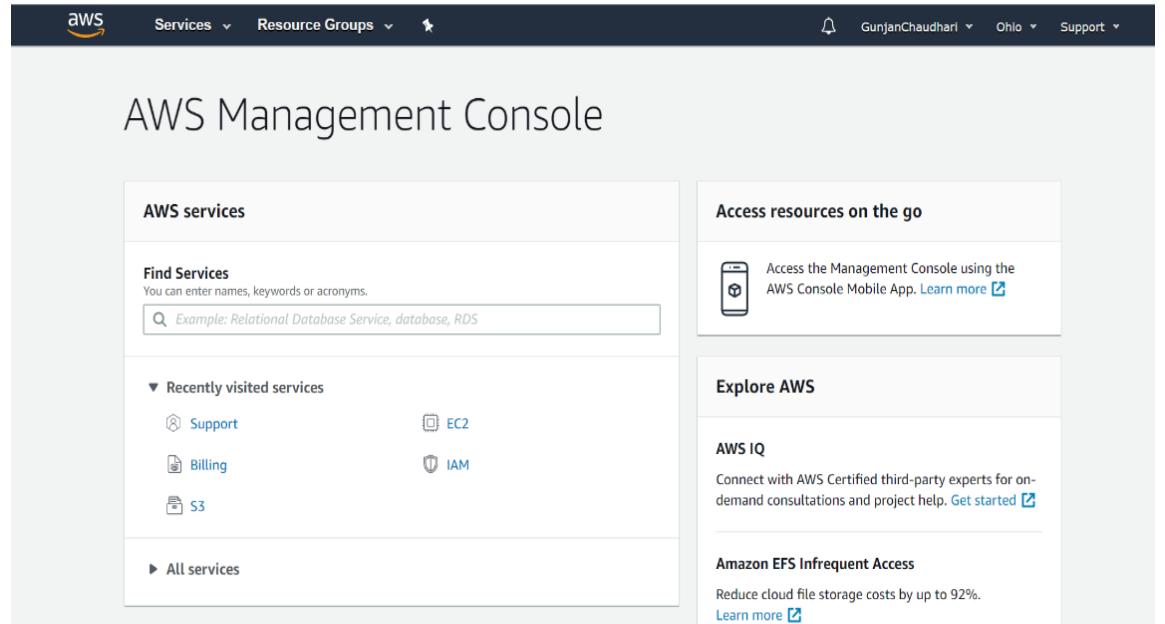


FACE DETECTION APP ON AWS

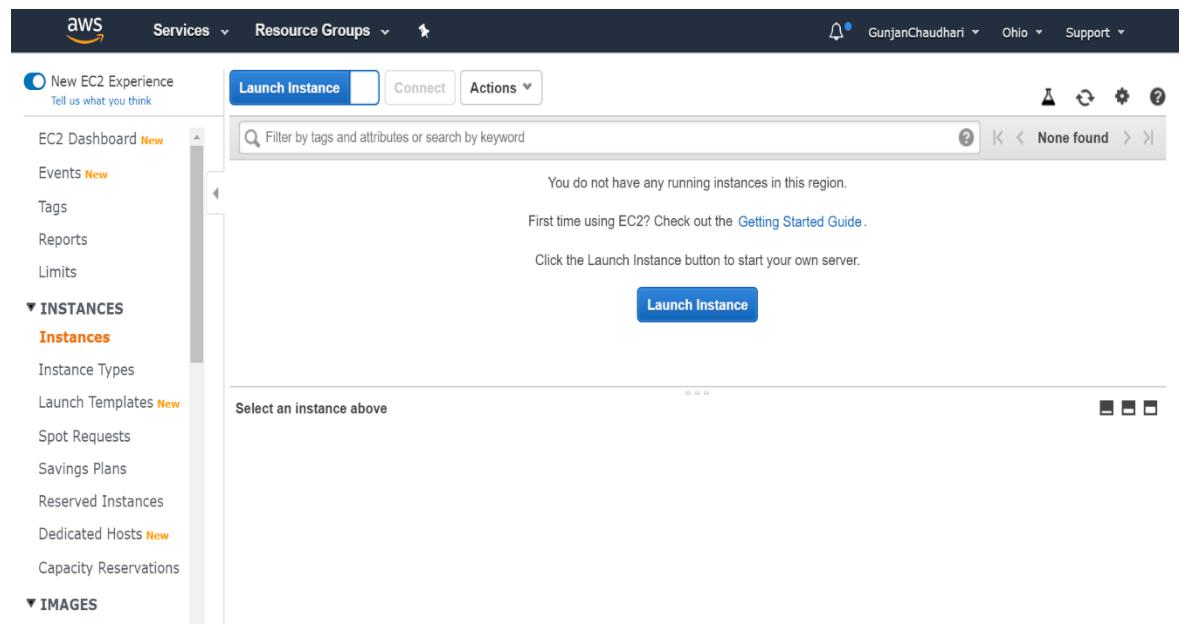
I. AWS

1. AWS login screen with username



The screenshot shows the AWS Management Console homepage. At the top, there's a dark header bar with the AWS logo, a search bar, and navigation links for 'Services', 'Resource Groups', and a user profile for 'GunjanChaudhari'. Below the header is a large title 'AWS Management Console'. To the left, a sidebar titled 'AWS services' contains a 'Find Services' search bar and a list of recently visited services: Support, EC2, Billing, IAM, and S3. A link to 'All services' is also present. To the right, there are two main sections: 'Access resources on the go' (with a link to the AWS Mobile App) and 'Explore AWS' (which includes a link to 'AWS IQ' and 'Amazon EFS Infrequent Access').

2. EC2 Dashboard



The screenshot shows the EC2 Dashboard. The top navigation bar is identical to the main AWS console. On the left, a sidebar lists various EC2 management options: 'New EC2 Experience' (with a 'Tell us what you think' link), 'EC2 Dashboard', 'Events', 'Tags', 'Reports', 'Limits', 'INSTANCES' (with 'Instances' selected, showing 'Instance Types', 'Launch Templates', 'Spot Requests', 'Savings Plans', 'Reserved Instances', 'Dedicated Hosts', and 'Capacity Reservations'), and 'IMAGES'. The main content area features a search bar at the top, followed by a message stating 'You do not have any running instances in this region.' It includes a 'First time using EC2? Check out the Getting Started Guide.' and a 'Click the Launch Instance button to start your own server.' Below this is a large blue 'Launch Instance' button. The bottom right corner of the dashboard has three small icons.

3. S3Dashboard

The screenshot shows the AWS S3 dashboard. At the top, there's a navigation bar with the AWS logo, 'Services' dropdown, 'Resource Groups' dropdown, and user information ('GunjanChaudhari', 'Global', 'Support'). Below the navigation is a sidebar titled 'Amazon S3' with options like 'Buckets', 'Batch operations', 'Access analyzer for S3', 'Block public access (account settings)', and 'Feature spotlight'. The main content area is titled 'Amazon S3' and shows a table for 'Buckets (0)'. It includes columns for 'Name', 'Region', 'Access', and 'Bucket created'. A message at the bottom states 'No buckets' and 'You don't have any buckets.' with a 'Create bucket' button.

4. Rekognition Dashboard

The screenshot shows the Amazon Rekognition dashboard. At the top, there's a navigation bar with the AWS logo, 'Services' dropdown, 'Resource Groups' dropdown, and user information ('GunjanChaudhari', 'Ohio', 'Support'). The left sidebar has sections for 'Custom Labels' (marked as 'New'), 'Demos' (with sub-options like 'Object and scene detection', 'Image moderation', 'Facial analysis', 'Celebrity recognition', 'Face comparison', 'Text in image', 'Video Demos', 'Video analysis', and 'Metrics'), and 'Metrics'. The main content area features a dark blue background with a network graph. It's titled 'Amazon Rekognition' and describes it as a 'Deep learning-based visual analysis service' for 'Search, verify, and organize millions of images and videos'. It includes a 'Try Demo' button, a 'Download SDKs' button, and three icons: a stack of three rectangles labeled 'Easily Integrate Powerful Visual Analysis into Your', a circuit board labeled 'Continuously Learning', and a puzzle piece labeled 'Integrated with AWS Services'.

II. EC2

1. Choosing an AMI

The screenshot shows the 'Choose AMI' step of the AWS EC2 instance creation wizard. At the top, there's a navigation bar with the AWS logo, 'Services' dropdown, 'Resource Groups' dropdown, and user information ('GunjanChaudhari', 'Ohio', 'Support'). Below the navigation is a progress bar with steps: 1. Choose AMI (highlighted), 2. Choose Instance Type, 3. Configure Instance, 4. Add Storage, 5. Add Tags, 6. Configure Security Group, 7. Review. To the right of the progress bar is a 'Cancel and Exit' link. The main content area is titled 'Step 1: Choose an Amazon Machine Image (AMI)'. On the left is a 'Quick Start' sidebar with 'My AMIs', 'AWS Marketplace', 'Community AMIs', and a checked 'Free tier only' checkbox. The main pane lists three AMI options: 1. 'Amazon Linux 2 AMI (HVM), SSD Volume Type - ami-0e01ce4ee18447327 (64-bit x86) / ami-03201f374ab66a26e (64-bit Arm)' by 'Amazon Linux' (Free tier eligible). It includes details: 'Root device type: ebs', 'Virtualization type: hvm', 'ENAs Enabled: Yes', and two radio buttons for '64-bit (x86)' and '64-bit (Arm)'. 2. 'Amazon Linux AMI 2018.03.0 (HVM), SSD Volume Type - ami-01b01bbd08f24c7a8' by 'Amazon Linux' (Free tier eligible). It includes details: 'Root device type: ebs', 'Virtualization type: hvm', 'ENAs Enabled: Yes', and a 'Select' button. 3. 'Red Hat Enterprise Linux 8 (HVM), SSD Volume Type - ami-0520e698dd500b1d1 (64-bit x86) / ami-0099847d600887c9f (64-bit Arm)' by 'Red Hat'. It includes details: 'Root device type: ebs', 'Virtualization type: hvm', 'ENAs Enabled: Yes', and a 'Select' button. At the bottom right of the main pane are links for '1 to 40 of 40 AMIs < >' and a 'Select' button.

2. Choosing an Instance Type

Step 2: Choose an Instance Type

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

3. No changes in configure instance details

Step 3: Configure Instance Details

Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot instances to take advantage of the lower pricing, assign an access management role to the instance, and more.

Number of instances	1	Launch into Auto Scaling Group
Purchasing option	<input type="checkbox"/> Request Spot instances	
Network	vpc-ba79acd1 (default)	<input type="button"/> Create new VPC
Subnet	No preference (default subnet in any Availability Zone)	<input type="button"/> Create new subnet
Auto-assign Public IP	Use subnet setting (Enable)	
Placement group	<input type="checkbox"/> Add instance to placement group	
Capacity Reservation	Open	<input type="button"/> Create new Capacity Reservation
IAM role	None	<input type="button"/> Create new IAM role

Cancel Previous Review and Launch Next: Add Storage

4. Adding Storage

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	<input checked="" type="checkbox"/>	<input 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.

Cancel Previous Review and Launch Next: Add Tags

5. Configuring Security Group

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-1

Description: launch-wizard-1 created 2020-04-01T16:34:55.500+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

6. Key Pair Download

Step 7: Review Instance

Please review your instance launch details.

AMI Details

Amazon Linux 2 AMI (HVM, SSD Volume Type)

Free tier eligible

Root Device Type: ebs Virtualization Type: hvm

Instance Type

t2.micro

Feedback English (US)

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-webinar-key

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

7. Launched Instance

New EC2 Experience Tell us what you think

EC2 Dashboard New

Events New

Tags

Reports

Limits

INSTANCES

Instances

Instance Types

Launch Templates New

Spot Requests

Savings Plans

Reserved Instances

Dedicated Hosts New

Capacity Reservations

Launch Instance Connect Actions

Filter by tags and attributes or search by keyword

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IP)
i-0f0d7e46a24bcce88	t2.micro	us-east-2b	running	Initializing	None	ec2-18-220-43-64	

Instance: i-0f0d7e46a24bcce88 Public DNS: ec2-18-220-43-64.us-east-2.compute.amazonaws.com

Description Status Checks Monitoring Tags

Instance ID	Public DNS (IPV4)
i-0f0d7e46a24bcce88	ec2-18-220-43-64.us-east-2.compute.amazonaws.com

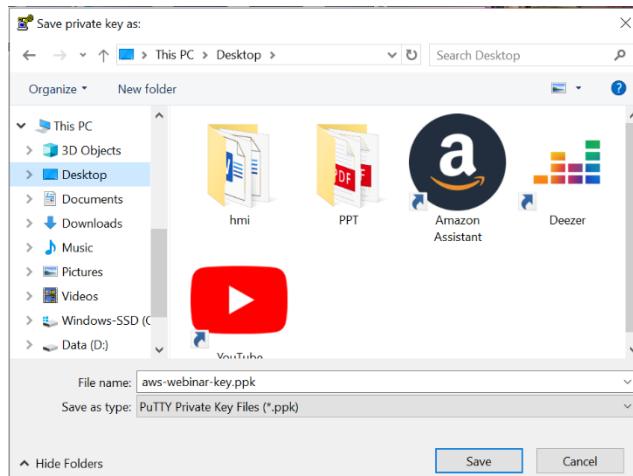
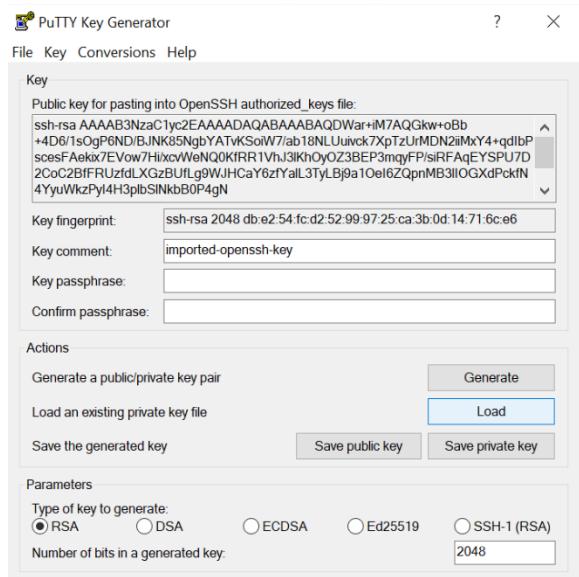
Instance state: running
Instance type: t2.micro
Finding: Opt-in to AWS Compute Optimizer for recommendations. [Learn more](#)

IPv4 Public IP: 18.220.43.64
IPv6 IPs: -
Elastic IPs:

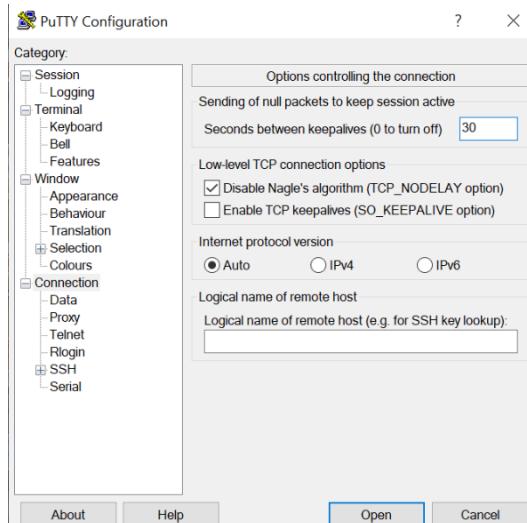
Feedback English (US)

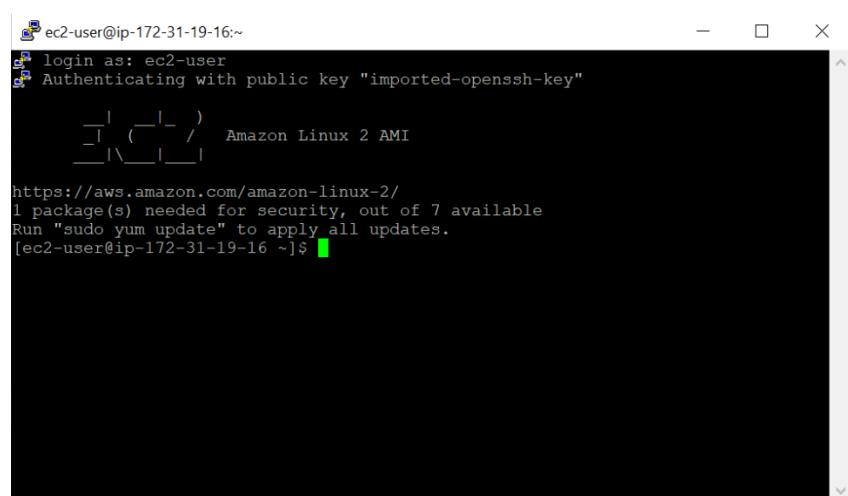
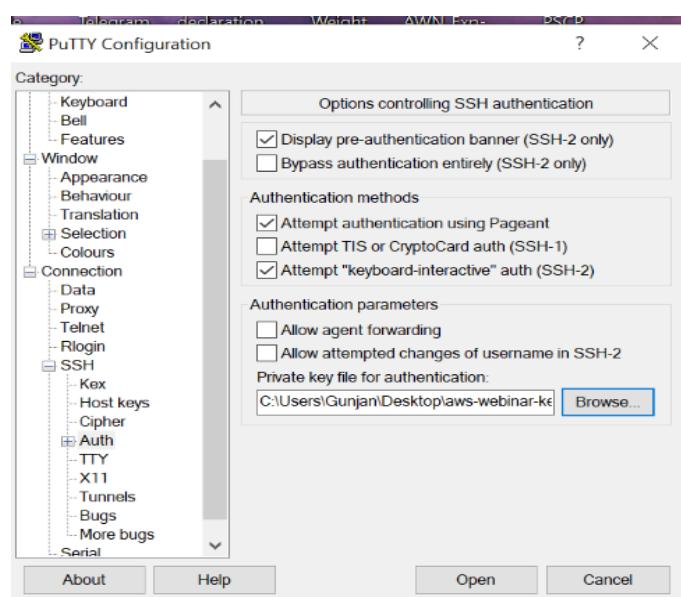
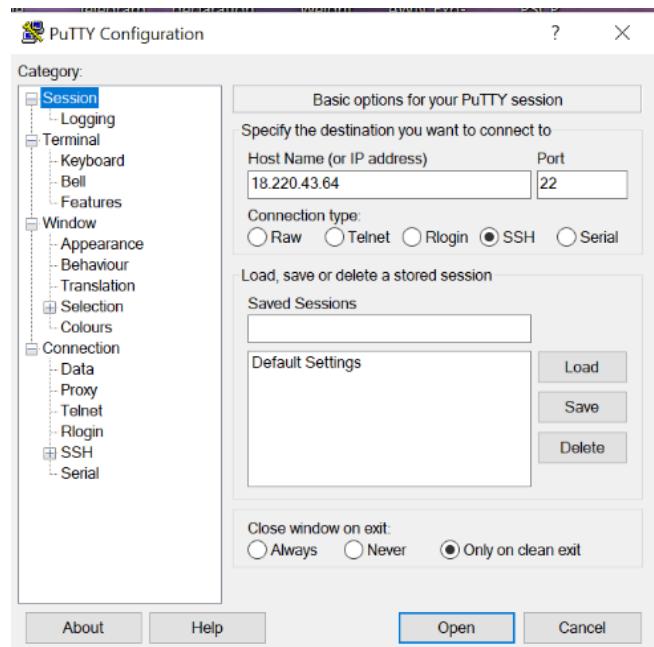
© 2008 - 2020, Amazon Internet Services Private Ltd, or its affiliates. All rights reserved. Privacy Policy Terms of Use

8. PuTTY gen conversion from pem to ppk



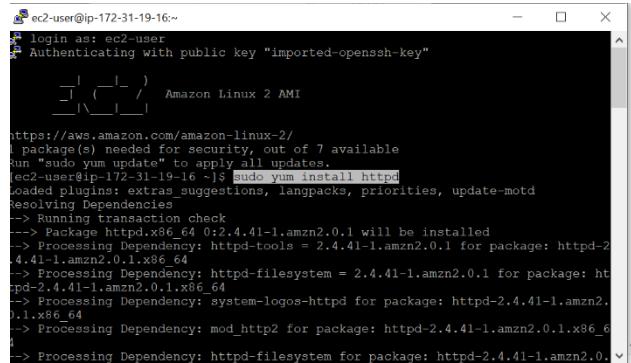
9. Logged in EC2 black screen





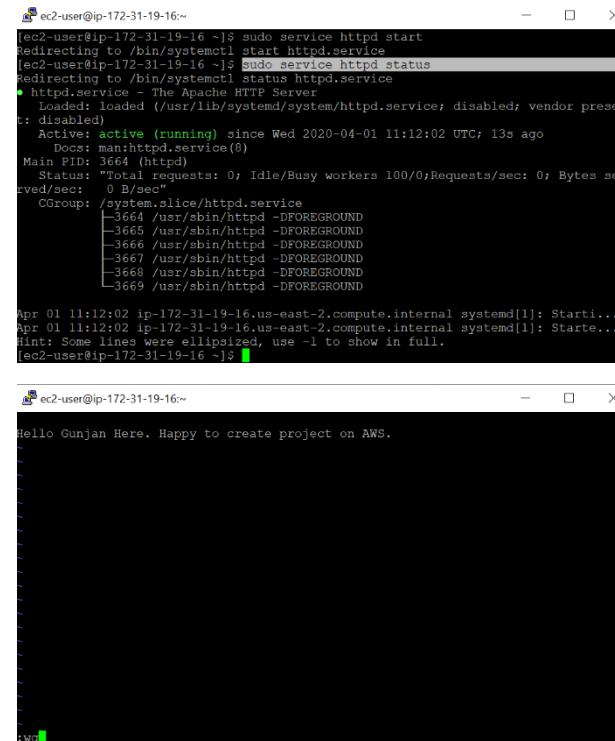
```
ec2-user@ip-172-31-19-16:~  
login as: ec2-user  
Authenticating with public key "imported-openssh-key"  
Amazon Linux 2 AMI  
  
https://aws.amazon.com/amazon-linux-2/  
1 package(s) needed for security, out of 7 available  
Run "sudo yum update" to apply all updates.  
[ec2-user@ip-172-31-19-16 ~]$
```

10. Installing Apache server i.e. httpd



```
ec2-user@ip-172-31-19-16:~$ sudo yum update
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-172-31-19-16 ~]$ sudo yum install httpd
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Resolving Dependencies
--> Running transaction check
--> Package httpd.x86_64 0:2.4.41-1.amzn2.0.1 will be installed
   - Processing Dependency: httpd-tools = 2.4.41-1.amzn2.0.1 for package: httpd-2.4.41-1.amzn2.0.1.x86_64
--> Processing Dependency: httpd-filesystem = 2.4.41-1.amzn2.0.1 for package: httpd-2.4.41-1.amzn2.0.1.x86_64
--> Processing Dependency: system-logos-httpd for package: httpd-2.4.41-1.amzn2.0.1.x86_64
--> Processing Dependency: mod_http2 for package: httpd-2.4.41-1.amzn2.0.1.x86_64
--> Processing Dependency: httpd-filesystem for package: httpd-2.4.41-1.amzn2.0.1.x86_64
```

11. Running httpd and creating index.html

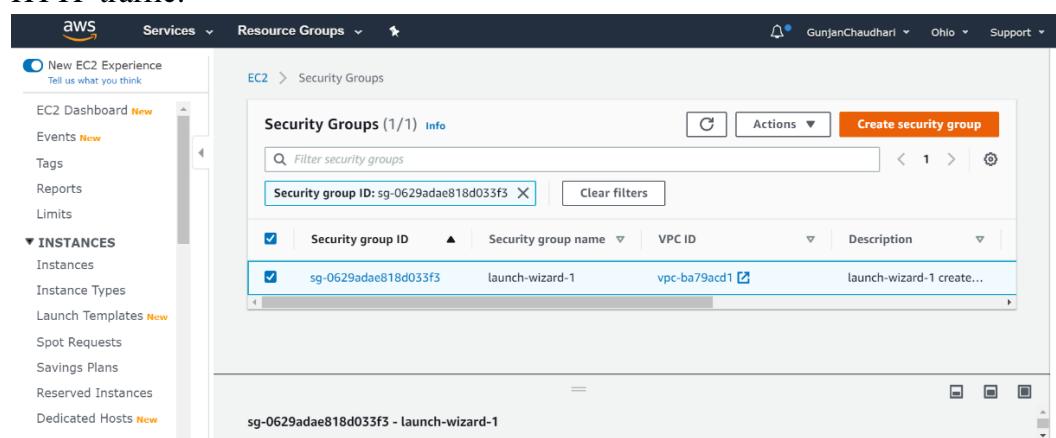


```
[ec2-user@ip-172-31-19-16 ~]$ sudo service httpd start
Redirecting to /bin/systemctl start httpd.service
[ec2-user@ip-172-31-19-16 ~]$ sudo service httpd status
Redirecting to /bin/systemctl status httpd.service
● httpd.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; disabled; vendor prese
   t: disabled)
     Active: active (running) since Wed 2020-04-01 11:12:02 UTC; 13s ago
       Docs: man:httdp.service(8)
   Main PID: 3664 (httpd)
     Status: "Total requests: 0; Idle/Busy workers 100/0; Requests/sec: 0; Bytes se
   rved/sec: 0 B/sec"
      CGroup: /system.slice/httpd.service
              └─3664 /usr/sbin/httpd -DFOREGROUND
      3665 /usr/sbin/httpd -DFOREGROUND
      3666 /usr/sbin/httpd -DFOREGROUND
      3667 /usr/sbin/httpd -DFOREGROUND
      3668 /usr/sbin/httpd -DFOREGROUND
      3669 /usr/sbin/httpd -DFOREGROUND
Apr 01 11:12:02 ip-172-31-19-16.us-east-2.compute.internal systemd[1]: Starting The Apache HTTP Server...
Apr 01 11:12:02 ip-172-31-19-16.us-east-2.compute.internal systemd[1]: Started The Apache HTTP Server.
Hint: Some lines were ellipsized, use -l to show in full.
[ec2-user@ip-172-31-19-16 ~]$
```



```
ec2-user@ip-172-31-19-16:~$ curl http://172.31.19.16
Hello Gunjan Here. Happy to create project on AWS.
```

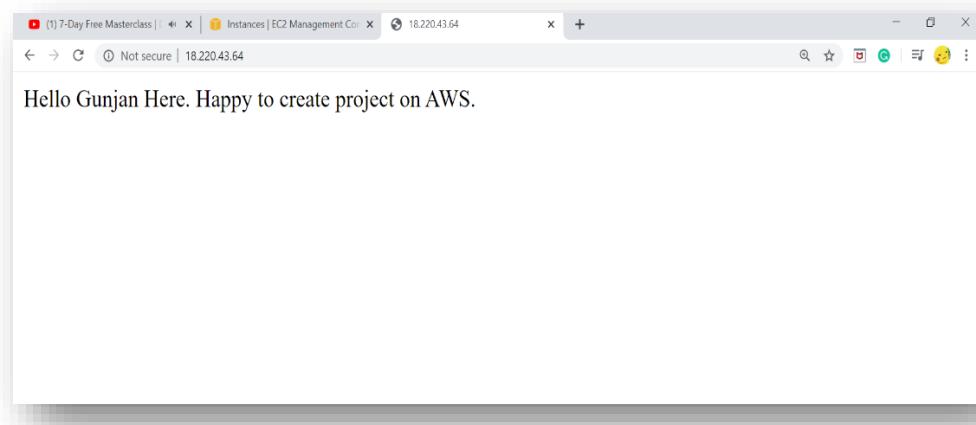
12. So the machine only allows SSH and all other traffics are denied. So we need to change the security configurations and make the machine to accept the HTTP traffic.



The screenshot shows the AWS EC2 Dashboard. On the left, there's a sidebar with options like Instances, Instance Types, Launch Templates, and Security Groups. The main area displays the details for the security group 'launch-wizard-1'. It shows the security group ID 'sg-0629adae818d033f3', the owner '239514829779', and creation details ('launched-wizard-1 created 2020-04-01T16:34:35.500+05:30'). Below this, there are tabs for 'Inbound rules' (selected), 'Outbound rules', and 'Tags'. The 'Inbound rules' table lists one rule: 'SSH' protocol on port '22' from '0.0.0.0/0'. At the bottom, there's a 'Feedback' link, the AWS logo, and links for English (US), Privacy Policy, and Terms of Use.

This screenshot shows the 'Inbound rules' configuration page for the 'launch-wizard-1' security group. It lists two rules: one for SSH (TCP port 22) allowing traffic from '0.0.0.0/0' and another for HTTP (TCP port 80) allowing traffic from 'Anywhere'. There's a 'Delete' button next to each rule and a 'Delete' button at the bottom right. A 'Add rule' button is at the bottom left. The top of the page has the AWS logo, Services dropdown, Resource Groups dropdown, and navigation links for GunjanChaudhari, Ohio, and Support.

13. Output of EC2



III. S3

1. Creating Bucket

The screenshot shows the AWS S3 Management Console. A green success message at the top right states: "Successfully created bucket aws-face-detection-webinar. To upload files and folders, or to configure additional bucket settings such as Bucket Versioning, tags, and default encryption, choose Go to bucket details." Below this, the main interface shows a table titled "Buckets (1)". The table has columns for Name, Region, Access, and Bucket created. It lists one item: "aws-face-detection-webinar" in US East (Ohio) region, Not Public access, and created on 2020-04-01T14:02:24.000Z.

2. Uploading an Object

The screenshot shows the AWS S3 Management Console. A modal window titled "Upload" is open, divided into four steps: 1. Select files (with a file named "index.html" selected), 2. Set permissions, 3. Set properties, and 4. Review. Below the modal, the bucket "aws-face-detection-webinar" is selected. The "Properties" tab is active. The bucket details show one file: "index.html" (Size: 169.0 B, Last modified: Apr 1, 2020 7:35:42 PM, Storage class: Standard).

3. Enabling Static website

The screenshot shows two related pages from the AWS Management Console.

Top Page: Static website hosting

- Endpoint: <http://aws-face-detection-webinar.s3-website.us-east-2.amazonaws.com>
- Use this bucket to host a website [Learn more](#)
- Index document: `index.html`
- Error document: `error.html`
- Redirection rules (optional)

Right Panel: Object-level logging

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

Enabled

Bottom Page: aws-face-detection-webinar Properties

- Overview (selected)
- Properties
- Permissions
- Management
- Access points

Features:

- Versioning:** Keep multiple versions of an object in the same bucket. [Learn more](#). Status: Disabled
- Server access logging:** Set up access log records that provide details about access requests. [Learn more](#). Status: Disabled
- Static website hosting:** Host a static website, which does not require server-side technologies. [Learn more](#). Status: Bucket hosting
- Object-level logging:**
- Default encryption:**

4. Making bucket and object public

The screenshot shows the AWS S3 Management Console for the bucket `aws-face-detection-webinar`.

Top Bar: 7-Day Free Masterclass | Day | S3 Management Console | 403 Forbidden | 18.220.43.64 | +

Bucket Permissions Page:

- Services: 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](#)

Success Message: Public access settings updated successfully

Block all public access:

- Off
 - Block public access to buckets and objects granted through *new* access control lists (ACLs) Off
 - Block public access to buckets and objects granted through *any* access control lists (ACLs) Off
 - Block public access to buckets and objects granted through *new* public bucket or access point policies Off

Owner
e08d0609d2147e96416207c14a2f1cfba62af7ca7837a81ad05bb6b5f7ba09b4

Last modified
Apr 1, 2020 7:35:42 PM GMT+0530

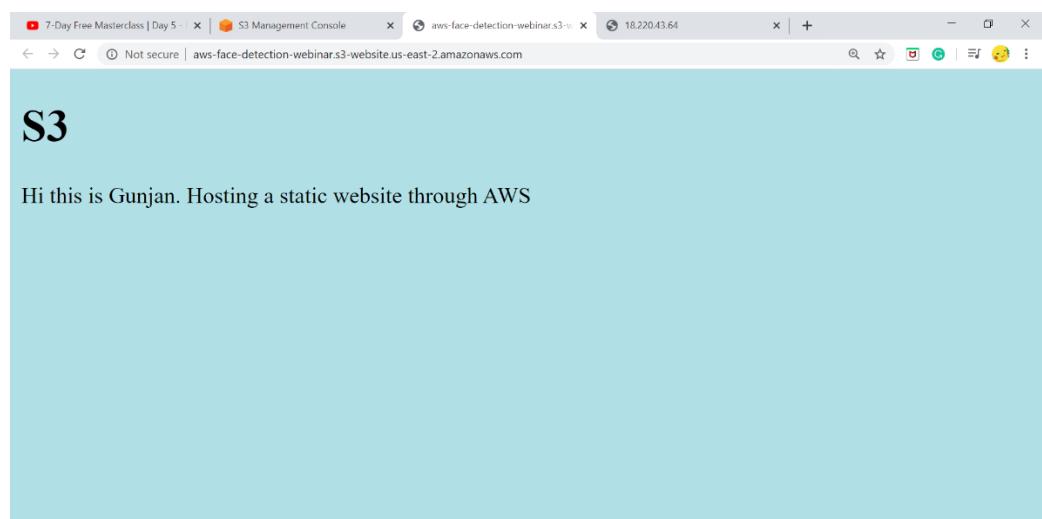
Etag
09af330d6aa722a8562d651cd879e111

Storage class
Standard

Server-side encryption
None

Operations 0 In progress 1 Success 0 Error

5. Checking the S3 link on the browser



IV. RECOGNITION

1. Face Detect

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

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 %

2. Face Compare

The screenshot shows the AWS Rekognition Face comparison interface. On the left, there's a sidebar with various services like Custom Labels, Demos, Face comparison (which is selected), and Metrics. The main area is titled "Face comparison" and says "Compare faces to see how closely they match based on a similarity percentage." It has two sections: "Reference face" (a girl smiling) and "Comparison faces" (two girls laughing). Below these are "Choose a sample image" buttons. On the right, there's a "Results" section with a comparison of two faces and a similarity bar at 99.8%. A note at the bottom says "© 2018 - 2020, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. Privacy Policy Terms of Use".

3. Celebrity Rekognition

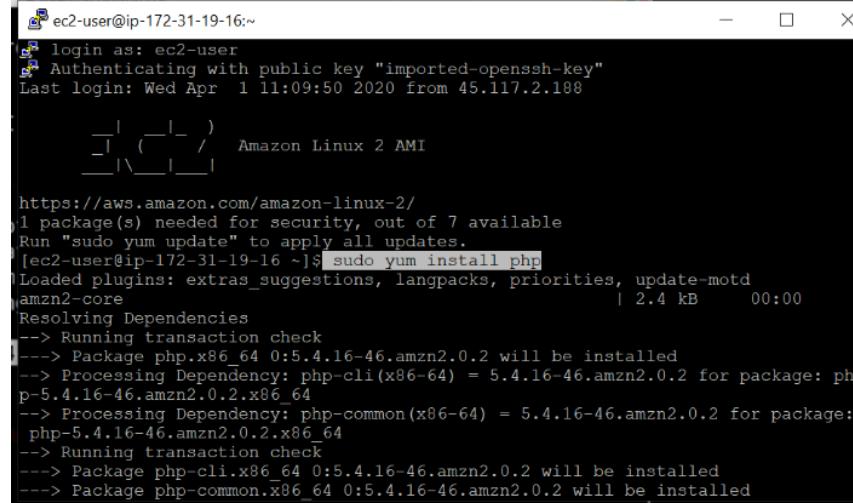
The screenshot shows the AWS Rekognition Celebrity recognition interface. The sidebar includes Custom Labels, Demos, Face comparison (selected), and Metrics. The main area is titled "Celebrity recognition" and says "Rekognition automatically recognizes celebrities in images and provides confidence scores." It shows a portrait of Jeff Bezos with a blue bounding box around his head. Below it are "Choose a sample image" and "Use your own image" buttons. On the right, there's a "Results" section for Jeff Bezos with a match confidence of 100%. A note at the bottom says "© 2018 - 2020, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. Privacy Policy Terms of Use".

4. Text in Image

The screenshot shows the AWS Rekognition Text detection interface. The sidebar includes Custom Labels, Demos, Face comparison (selected), and Metrics. The main area is titled "Text in image" and says "Rekognition automatically detects and extracts text in your images. Learn More". It shows an image of a coffee mug with text overlays: "IT'S MONDAY but keep Smiling". Below the image are "Choose a sample image" and "Use your own image" buttons. On the right, there's a "Results" section showing detected text: "IT'S | MONDAY | but | keep | Smiling |". A note at the bottom says "© 2018 - 2020, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. Privacy Policy Terms of Use".

V. EC2 & S3

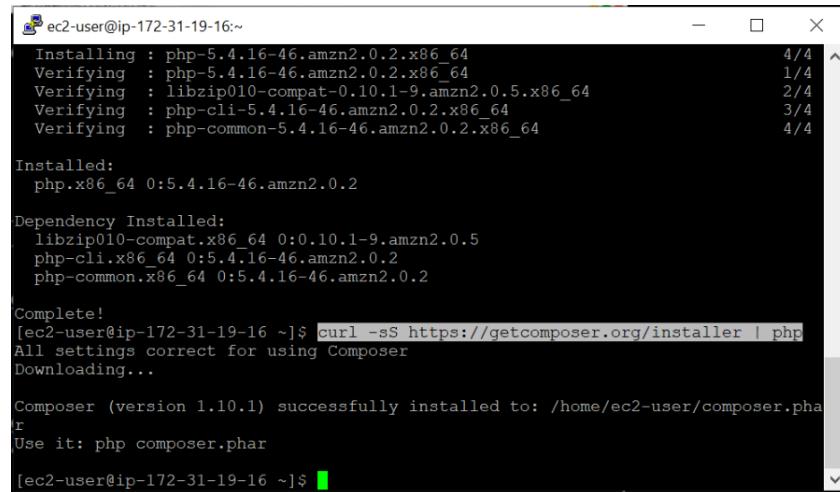
1. Installing php



```
[ec2-user@ip-172-31-19-16:~]
[ec2-user login as: ec2-user
Authenticating with public key "imported-openssh-key"
Last login: Wed Apr  1 11:09:50 2020 from 45.117.2.188

[ec2-user@ip-172-31-19-16 ~]$ 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
--> Running transaction check
-->> Package php-cli.x86_64 0:5.4.16-46.amzn2.0.2 will be installed
-->> Package php-common.x86_64 0:5.4.16-46.amzn2.0.2 will be installed
```

2. Installing composer



```
[ec2-user@ip-172-31-19-16:~]
[ec2-user login as: ec2-user
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

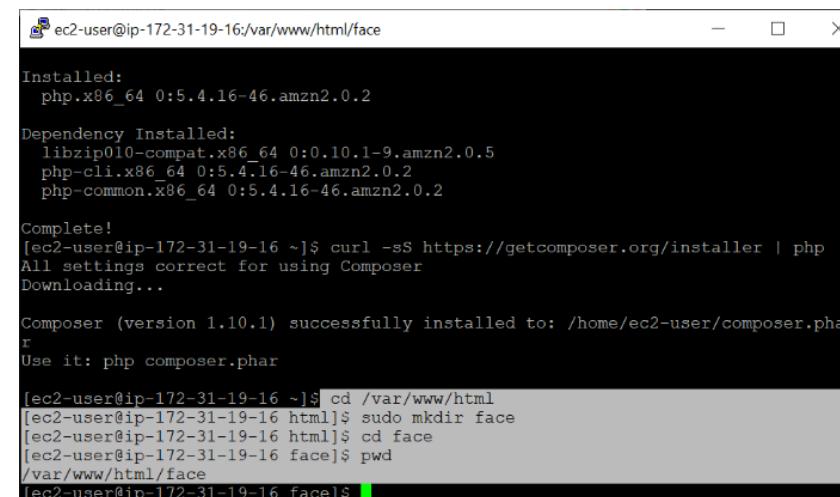
Dependency Installed:
  libzip010-compat.x86_64 0:0.10.1-9.amzn2.0.5
  php-cli.x86_64 0:5.4.16-46.amzn2.0.2
  php-common.x86_64 0:5.4.16-46.amzn2.0.2

Complete!
[ec2-user@ip-172-31-19-16 ~]$ curl -sS https://getcomposer.org/installer | ph
p
All settings correct for using Composer
Downloading...

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

[ec2-user@ip-172-31-19-16 ~]$
```

3. Creating directory face



```
[ec2-user@ip-172-31-19-16:/var/www/html:~]
[ec2-user login as: ec2-user
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-172-31-19-16 ~]$ curl -sS https://getcomposer.org/installer | ph
p
All settings correct for using Composer
Downloading...

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

[ec2-user@ip-172-31-19-16 ~]$ cd /var/www/html
[ec2-user@ip-172-31-19-16 html]$ sudo mkdir face
[ec2-user@ip-172-31-19-16 html]$ cd face
[ec2-user@ip-172-31-19-16 face]$ pwd
/var/www/html/face
[ec2-user@ip-172-31-19-16 face]$
```

4. Installing aws-sdk

```
[ec2-user@ip-172-31-19-16:/var/www/html/face]
/var/www/html/face
[ec2-user@ip-172-31-19-16 face]$ sudo /bin/dd if=/dev/zero of=/var/swap.1 bs=1M
count=1024
1024+0 records in
1024+0 records out
1073741824 bytes (1.1 GB) copied, 13.4341 s, 79.9 MB/s
[ec2-user@ip-172-31-19-16 face]$ sudo /sbin/mkswap /var/swap.1
mkswap: /var/swap.1: insecure permissions 0644, 0600 suggested.
Setting up swapspace version 1, size = 1024 MiB (1073737728 bytes)
no label, UUID=81814017-c37c-4798-aef1-33edae3e3655
[ec2-user@ip-172-31-19-16 face]$ sudo /sbin/swapon /var/swap.1
swapon: /var/swap.1: insecure permissions 0644, 0600 suggested.
[ec2-user@ip-172-31-19-16 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): Downloading (100%)
- 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
```

5. index.php file code

```
[ec2-user@ip-172-31-19-16:/var/www/html/face]
error_reporting(0);

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

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

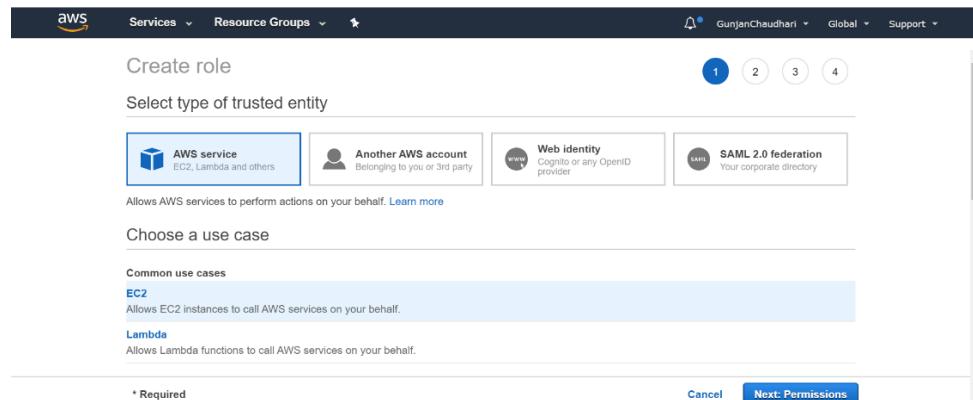
$bucket = 'aws-face-detection-webinar';
$keyname = 'demo.jpg';

$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,
```

26,1 62%

6. Giving permissions to EC2 to access S3 through IAM role



Giving full access of S3

Create role

Attach permissions policies

Choose one or more policies to attach to your new role.

Create policy

Filter policies ▾ Q s3 Showing 4 results

Policy name	Used as
AmazonDMSRedshiftS3Role	None
AmazonS3FullAccess	None
AmazonS3ReadOnlyAccess	None
QuickSightAccessForS3StorageManagementAnalyticsReadOnly	None

* Required Cancel Previous Next: Tags

Giving full access of Rekognition

Create role

Attach permissions policies

Choose one or more policies to attach to your new role.

Create policy

Filter policies ▾ Q rek Showing 4 results

Policy name	Used as
AmazonRekognitionCustomLabelsFullAccess	None
AmazonRekognitionFullAccess	None
AmazonRekognitionReadOnlyAccess	None
AmazonRekognitionServiceRole	None

* Required Cancel Previous Next: Tags

Creating role name

Create role

Review

Provide the required information below and review this role before you create it.

Role name* EC2-S3-REK

Role description Allows EC2 instances to call AWS services on your behalf.

Trusted entities AWS service: ec2.amazonaws.com

Policies

* Required Cancel Previous Create role

Selecting role which is newly created

Instances > Attach/Replace IAM Role

Attach/Replace IAM Role

Select an IAM role to attach to your instance. If you don't have any IAM roles, choose Create new IAM role to create a role in the IAM console. If an IAM role is already attached to your instance, the IAM role you choose will replace the existing role.

Instance ID i-0fd7e46a24bc88 () ⓘ

IAM role* EC2-S3-REK ⓘ

Create new IAM role ⓘ

* Required Cancel Apply

Sales

Services ▾ Resource Groups ▾

Instances > Attach/Replace IAM Role

Attach/Replace IAM Role

IAM role operation succeeded

Close

7. Successfully image is uploaded

ec2-user@ip-172-31-19-16:~\$ sudo php index.php
Image upload done... Here is the URL: https://aws-face-detection-webinar.s3.us-east-2.amazonaws.com/demo.jpg[ec2-user@ip-172-31-19-16 face]\$

aws-face-detection-webinar

Overview Properties Permissions Management Access points

Type a prefix and press Enter to search. Press ESC to clear.

Upload + Create folder Download Actions US East (Ohio)

Name	Last modified	Size	Storage class
demo.jpg	Apr 1, 2020 8:16:01 PM GMT+0530	245.0 KB	Standard
index.html	Apr 1, 2020 7:35:42 PM GMT+0530	169.0 B	Standard

Viewing 1 to 2

(1) 7-Day Fri | S3 Manager | demo.jpg (7) | IAM Manager | IAM Manager | saina.nehwal | Saina.Nehw | (5) 7-Day Fri

https://aws-face-detection-webinar.s3.us-east-2.amazonaws.com/demo.jpg

VI. EC2 & RECOGNITION

1. Face detect success screenshot

