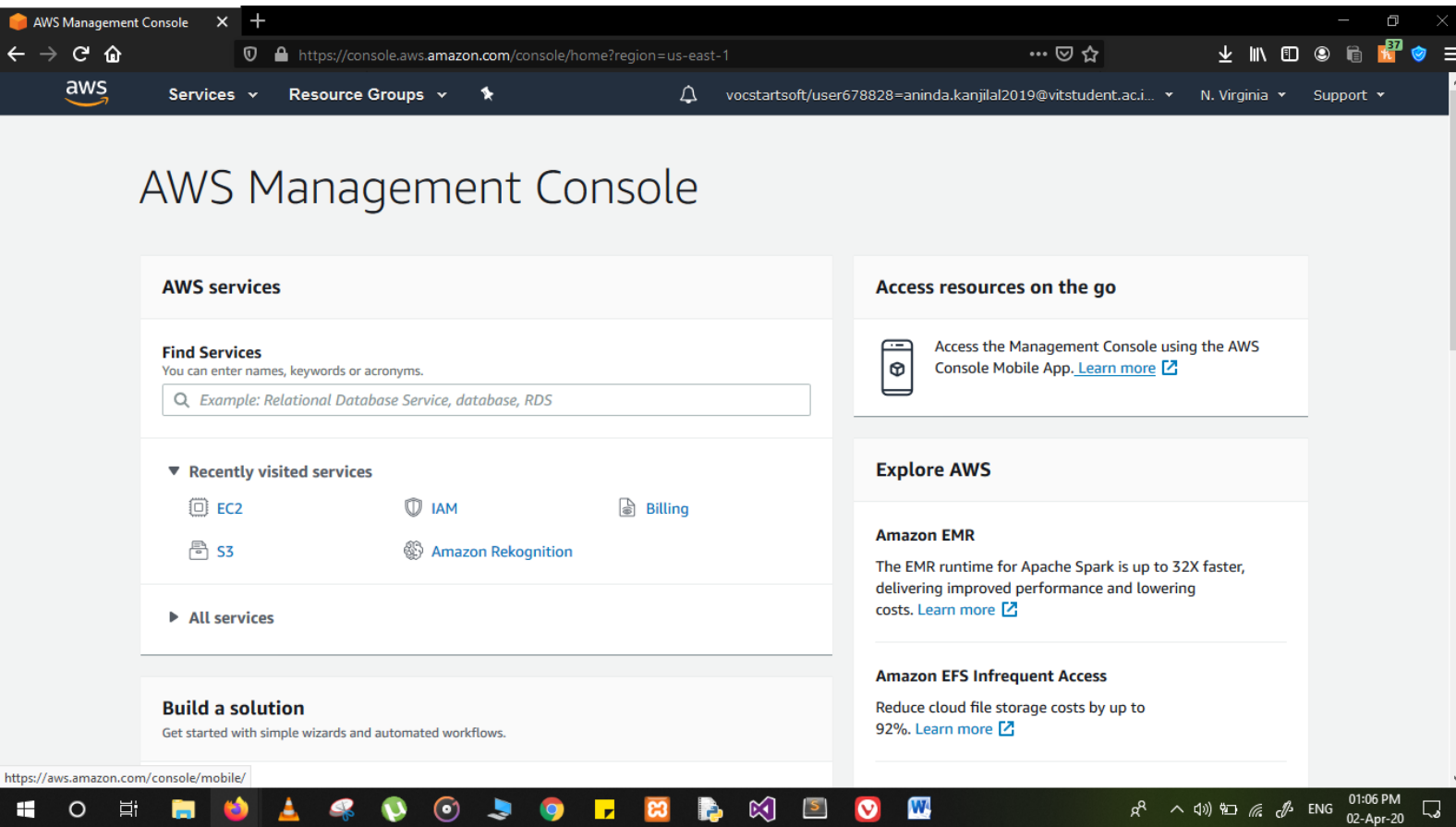
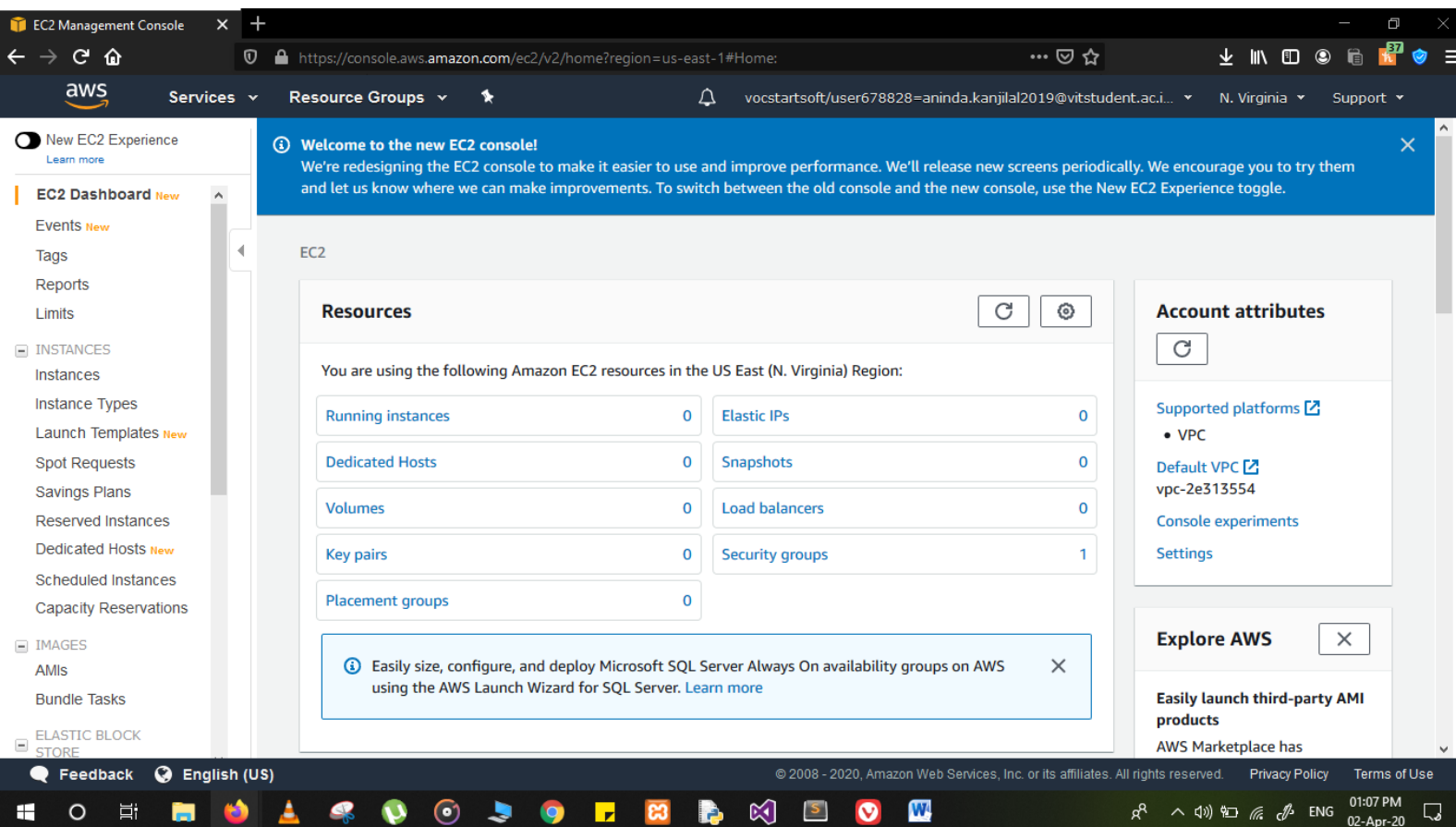


A) Screenshots for Dashboards

1) AWS Login screen with username



2) EC2 Dashboard



3) S3 Dashboard

The screenshot shows the Amazon S3 Management Console. The left sidebar contains navigation links: Buckets, Batch operations, Access analyzer for S3, Block public access (account settings), and Feature spotlight (2). The main content area displays a message about the console update, followed by the 'Buckets (0)' section. This section includes buttons for 'Copy ARN', 'Empty', 'Delete', and 'Create bucket', along with a search bar 'Find bucket by name'. Below this is a table with headers: Name, Region, Access, and Bucket created. The table is currently empty, showing 'No buckets' and 'You don't have any buckets.' with a 'Create bucket' button.

4) Rekognition Dashboard

The screenshot shows the Amazon Rekognition console. The left sidebar lists navigation options: 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), and Metrics. The main content area features a large header for 'Amazon Rekognition' with the tagline 'Deep learning-based visual analysis service' and 'Search, verify, and organize millions of images and videos'. It includes 'Try Demo' and 'Download SDKs' buttons. Below the header are three columns of information: 'Easily Integrate Powerful Visual Analysis into Your App', 'Continuously Learning', and 'Integrated with AWS Services'.

B) Screenshots for EC2

1) Choosing an AMI

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 2 AMI (HVM), SSD Volume Type - ami-0fc61db8544a617ed (64-bit x86) / ami-0f90a34c9df977efb (64-bit Arm) **Select**

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

Amazon Linux AMI 2018.03.0 (HVM), SSD Volume Type - ami-09a5b0b7edf08843d **Select**

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

Red Hat Enterprise Linux 8 (HVM), SSD Volume Type - ami-0c322300a1dd5dc79 (64-bit x86) / ami-03587fa4048e9eb92 **Select**

2) Choosing an Instance Type

Step 2: Choose an Instance Type

Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual servers that can run applications. They have varying combinations of CPU, memory, storage, and networking capacity, and give you the flexibility to choose the appropriate mix of resources for your applications. [Learn more](#) about instance types and how they can meet your computing needs.

Filter by: **All instance types** **Current generation** [Show/Hide Columns](#)

Currently selected: t2.micro (Variable ECUs, 1 vCPUs, 2.5 GHz, Intel Xeon Family, 1 GiB memory, EBS only)

	Family	Type	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance	IPv6 Support
<input type="checkbox"/>	General purpose	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
<input checked="" type="checkbox"/>	General purpose	t2.micro 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

Cancel **Previous** **Review and Launch** **Next: Configure Instance Details**

3) Adding Storage

Launch instance wizard | EC2 | X

https://console.aws.amazon.com/ec2/v2/home?region=us-east-1#LaunchInstanceWizard:

Services Resource Groups

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 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-0e27a39c6e2f9f079	8	General Purpose SSD (gp2)	100 / 3000	N/A	<input checked="" type="checkbox"/>	Not Encrypted

Add New Volume

Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage. [Learn more](#) about free usage tier eligibility and usage restrictions.

Cancel Previous Review and Launch Next: Add Tags

4) Configuring Security Group

Launch instance wizard | EC2 | X

https://console.aws.amazon.com/ec2/v2/home?region=us-east-1#LaunchInstanceWizard:

Services Resource Groups

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 6: Configure Security Group

A security group is a set of firewall rules that control the traffic for your instance. On this page, you can add rules to allow specific traffic to reach your instance. For example, if you want to set up a web server and allow Internet traffic to reach your instance, add rules that allow unrestricted access to the HTTP and HTTPS ports. You can create a new security group or select from an existing one below. [Learn more](#) about Amazon EC2 security groups.

Assign a security group: ☒ Create a new security group
☐ Select an existing security group

Security group name: launch-wizard-1

Description: launch-wizard-1 created 2020-04-02T13:21:07.169+05:30

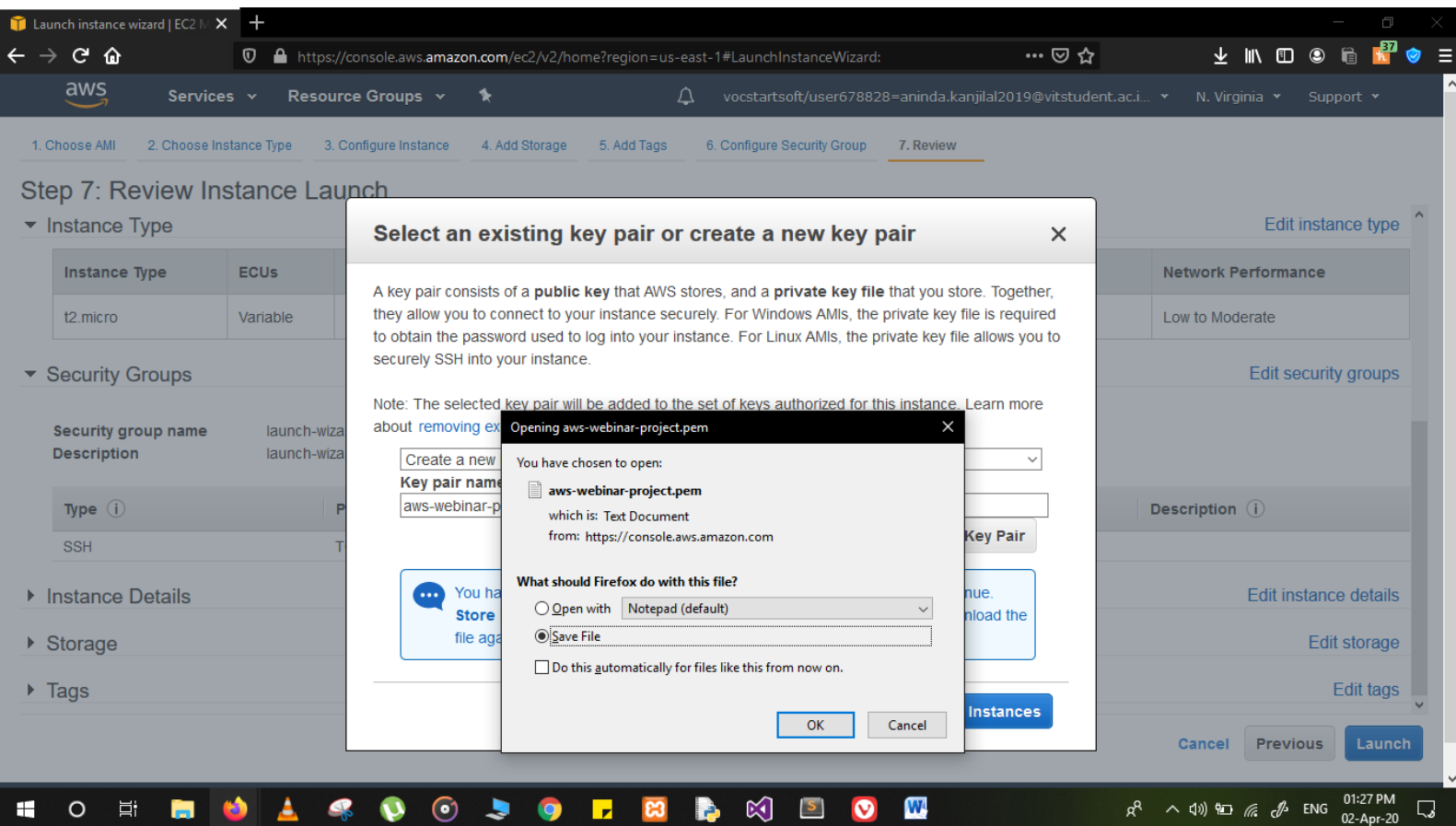
Type	Protocol	Port Range	Source	Description
SSH	TCP	22	Custom 0.0.0.0/0	e.g. SSH for Admin Desktop

Add Rule

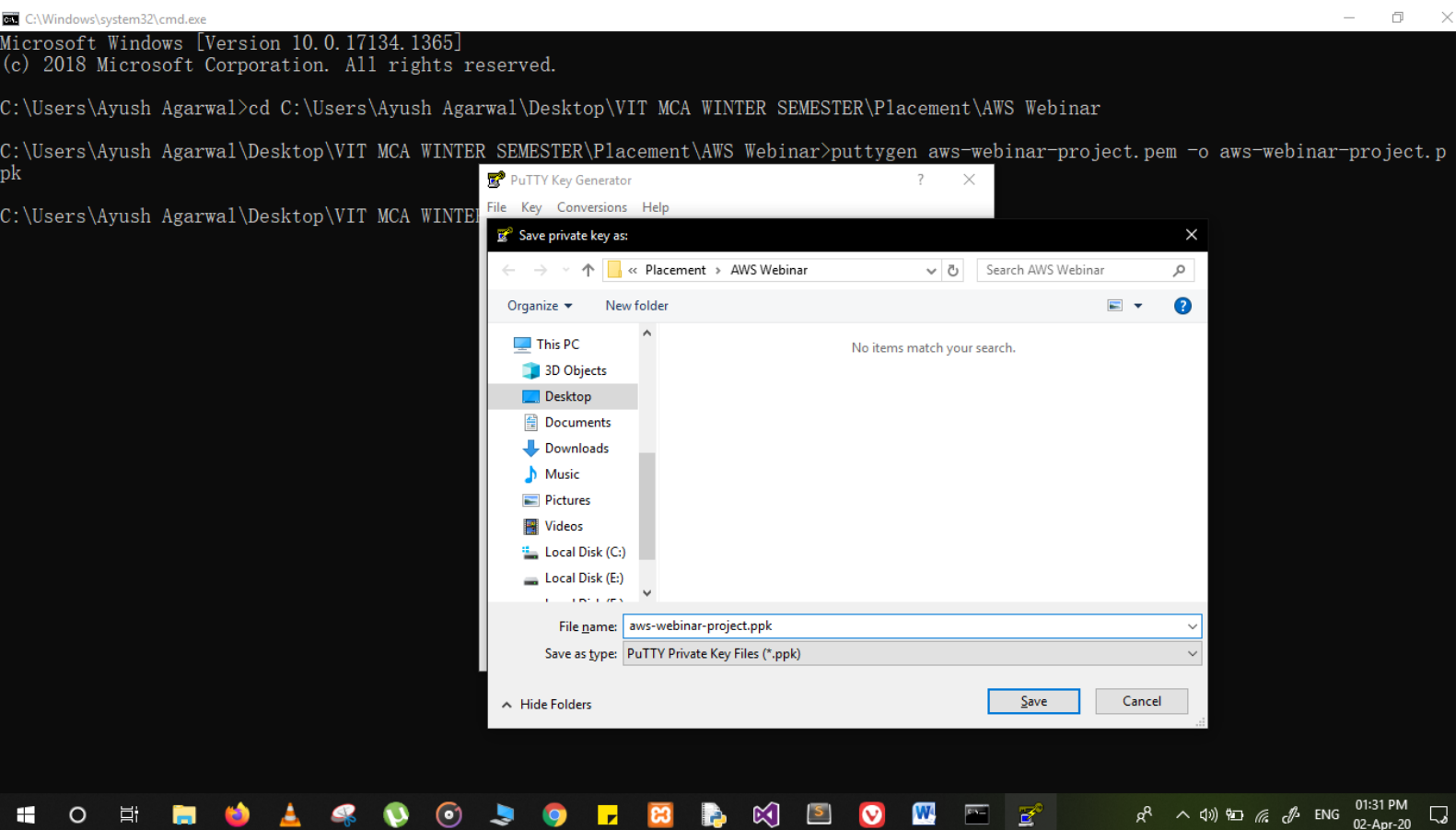
Warning
Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

Cancel Previous Review and Launch

5) Key Pair Download



6) PuTTYgen conversion from pem to ppk



7) Logged in EC2 black screen

```
ec2-user@ip-172-31-80-45:~  
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-172-31-80-45 ~]$
```

C) Screenshots for S3

1) Creating a bucket

The screenshot shows the AWS S3 Management Console interface. A green notification banner at the top states: "Successfully created bucket aws-ethnus-webinar-project. 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 "Buckets (1)" section displays a table with one bucket:

Name	Region	Access	Bucket created
aws-ethnus-webinar-project	US East (N. Virginia) us-east-1	Not Public	2020-04-02T08:11:37.000Z

The console also includes a left-hand navigation menu with options like "Buckets", "Batch operations", and "Access analyzer for S3". The bottom of the screen shows the Windows taskbar with various application icons and the system clock indicating 01:41 PM on 02-Apr-20.

2) Uploading an Object

The screenshot shows the AWS S3 Management Console interface. The breadcrumb navigation indicates the path: Amazon S3 > aws-ethnus-webinar-project. The bucket name 'aws-ethnus-webinar-project' is displayed at the top. Below the bucket name, there are tabs for Overview, Properties, Permissions, Management, and Access points. A search bar is present with the placeholder text 'Type a prefix and press Enter to search. Press ESC to clear.' Below the search bar, there are buttons for Upload, Create folder, Download, and Actions. The region is set to US East (N. Virginia). A table lists the objects in the bucket:

Name	Last modified	Size	Storage class
index.html	Apr 2, 2020 1:43:37 PM GMT+0530	208.0 B	Standard

Below the table, there is a status bar for the upload operation, showing '100% Successful' and '1 Success'.

3) Enabling Static Website

The screenshot shows the AWS S3 Management Console interface for the 'aws-ethnus-webinar-project' bucket. The breadcrumb navigation indicates the path: Amazon S3 > aws-ethnus-webinar-project. The bucket name 'aws-ethnus-webinar-project' is displayed at the top. Below the bucket name, there are tabs for Overview, Properties, Permissions, Management, and Access points. The 'Static website hosting' section is highlighted, showing the configuration for enabling static website hosting. The configuration is set to 'Bucket hosting'.

Static website hosting

Host a static website, which does not require server-side technologies.

Learn more

Bucket hosting

4) Making the Object Public

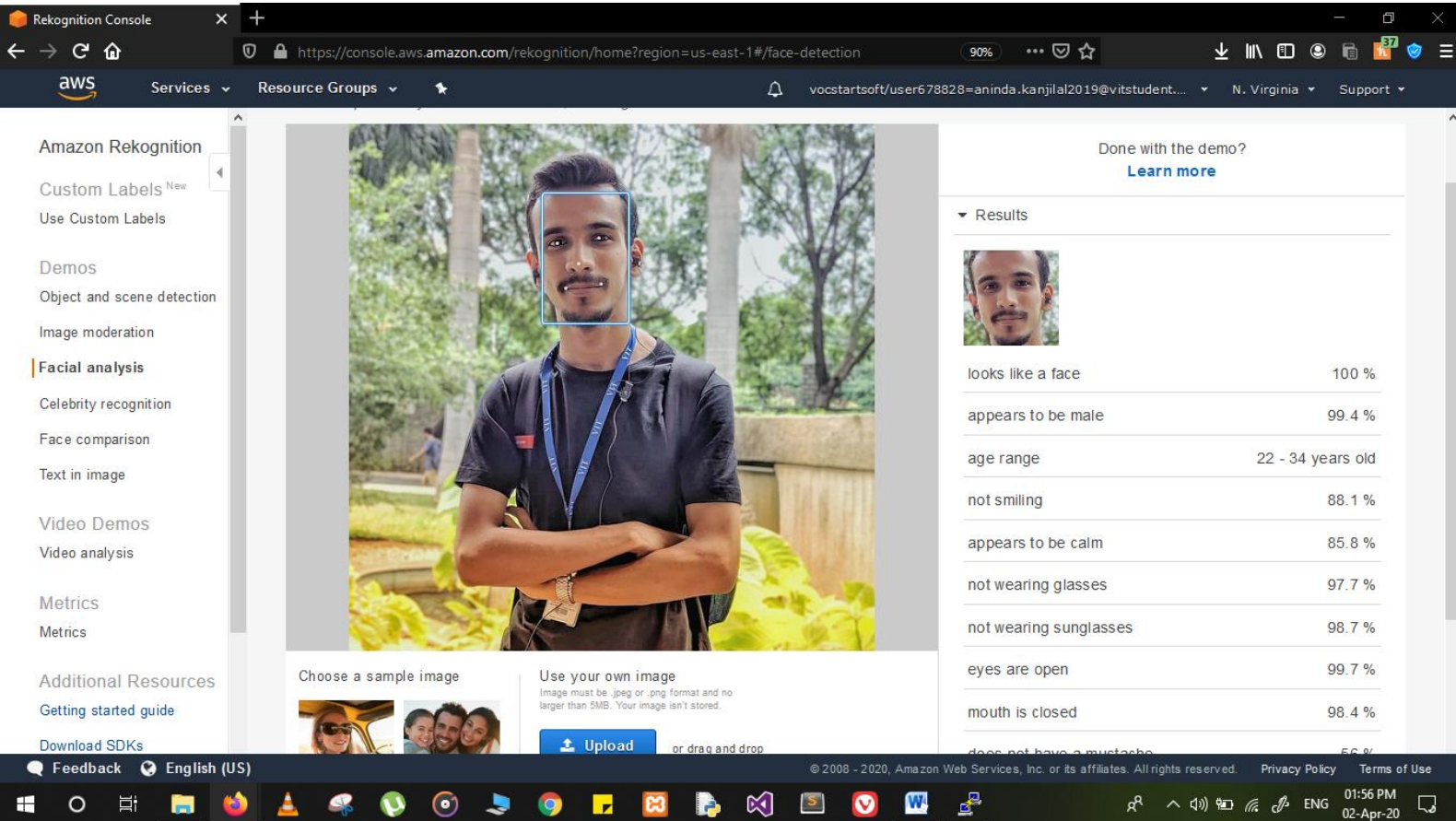
The screenshot shows the AWS S3 Management Console interface. The breadcrumb navigation indicates the path: Amazon S3 > aws-ethnus-webinar-project > index.html. The object 'index.html' is selected, and the 'Latest version' is shown. Below the object name, there are four tabs: Overview, Properties, Permissions, and Select from. The 'Overview' tab is active, displaying a 'Success' message. Below the message, there are five buttons: Open, Download, Download as, Make public, and Copy path. The 'Make public' button is highlighted. Below the buttons, the object's metadata is displayed: Owner (awslabsc0w684764t1585490405), Last modified (Apr 2, 2020 1:43:37 PM GMT+0530), Etag (95ca3d35768068fed48094efd1a6db4), and Storage class (Standard). At the bottom of the console, there is a status bar showing '0 In progress', '1 Success', and '0 Error'. The footer of the console includes 'Feedback', 'English (US)', and copyright information.

5) Checking the S3 link on the browser

The screenshot shows a web browser window with the address bar displaying 'aws-ethnus-webinar-project.s3-website-us-east-1.amazonaws.com'. The page content displays the text: 'Hello I am Aninda. I want to thank Arvind Sir from ETHNUS CODEMITHRA for teaching us about AWS.' The browser's taskbar at the bottom shows various application icons, including the Start menu, File Explorer, and several web browsers. The system clock in the bottom right corner indicates the time is 01:54 PM on 02-Apr-20.

D) Screenshots for Rekognition

1) Face Detect

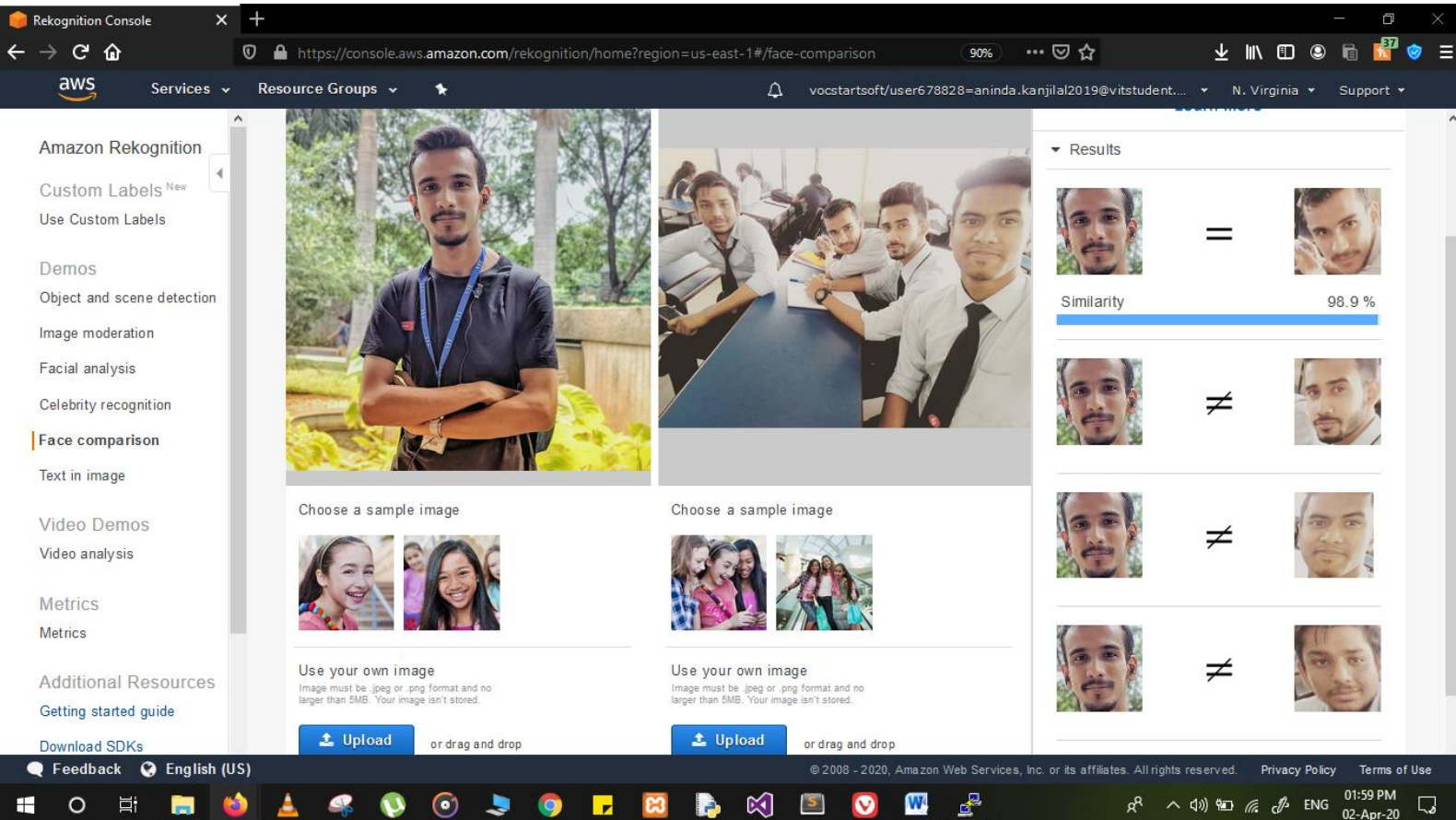


Done with the demo? [Learn more](#)

Results

looks like a face	100 %
appears to be male	99.4 %
age range	22 - 34 years old
not smiling	88.1 %
appears to be calm	85.8 %
not wearing glasses	97.7 %
not wearing sunglasses	98.7 %
eyes are open	99.7 %
mouth is closed	98.4 %
does not have a mustache	56.8 %

2) Face Compare



Results

Similarity 98.9 %

3) Celebrity Recognition

Amazon Rekognition Console

https://console.aws.amazon.com/rekognition/home?region=us-east-1#/celebrity-detection

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

Results

- Virat Kohli**
Match confidence: 100 %
- Yuzvendra Chahal**
Match confidence: 72 %
- Rohit Sharma**
Match confidence: 100 %
- Kuldeep Yadav**
Match confidence: 100 %

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.

[Upload](#) or drag and drop

Use image URL [Go](#)

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02:00 PM 02-Apr-20

4) Text in Image

Amazon Rekognition Console

https://console.aws.amazon.com/rekognition/home?region=us-east-1#/text-detection

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

Results

US English only

YOU DON'T
ALWAYS
NEED A PLAN.
SOMETIMES
YOU JUST NEED TO
BREATHE.
TRUST.
LET GO.
AND SEE
WHAT HAPPENS

Request

Choose a sample image

Use your own image

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02:02 PM 02-Apr-20

E) Screenshots for EC2 & S3

1) Installing aws-sdk

```
ec2-user@ip-172-31-80-45:/var/www/html/face
-bash: cd: /var/www/html: No such file or directory
[ec2-user@ip-172-31-80-45 ~]$ cd /var/www/html
[ec2-user@ip-172-31-80-45 html]$ sudo mkdir face
[ec2-user@ip-172-31-80-45 html]$ cd face
[ec2-user@ip-172-31-80-45 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, 13.369 s, 80.3 MB/s
[ec2-user@ip-172-31-80-45 face]$ sudo /sbin/mkswap /var/swap.1
mkswap: /var/swap.1: insecure permissions 0644, 0600 suggested.
Setting up swappiness version 1, size = 1024 MiB (1073737728 bytes)
no label, UUID=c9f70954-5ace-4933-85ec-829379546146
[ec2-user@ip-172-31-80-45 face]$ sudo /sbin/swapoff /var/swap.1
swapoff: /var/swap.1: insecure permissions 0644, 0600 suggested.
[ec2-user@ip-172-31-80-45 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
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-172-31-80-45 face]$
[ec2-user@ip-172-31-80-45 face]$
```

2) Installing php

```
ec2-user@ip-172-31-80-45:~
libzip010-compat      x86_64      0.10.1-9.amzn2.0.5      amzn2-cor
php-cli               x86_64      5.4.16-46.amzn2.0.2     amzn2-cor
php-common            x86_64      5.4.16-46.amzn2.0.2     amzn2-cor

Transaction Summary
-----
Install 1 Package (+3 Dependent packages)

Total download size: 4.7 M
Installed size: 17 M
Is this ok [y/d/N]: y
Downloading packages:
(1/4): libzip010-compat-0.10.1-9.amzn2.0.5.x86_64.rpm
(2/4): php-5.4.16-46.amzn2.0.2.x86_64.rpm
(3/4): php-common-5.4.16-46.amzn2.0.2.x86_64.rpm
(4/4): php-cli-5.4.16-46.amzn2.0.2.x86_64.rpm
-----
Total
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
  Installing : libzip010-compat-0.10.1-9.amzn2.0.5.x86_64
  Installing : php-common-5.4.16-46.amzn2.0.2.x86_64
  Installing : php-cli-5.4.16-46.amzn2.0.2.x86_64
  Installing : php-5.4.16-46.amzn2.0.2.x86_64
  Verifying  : php-5.4.16-46.amzn2.0.2.x86_64
  Verifying  : libzip010-compat-0.10.1-9.amzn2.0.5.x86_64
  Verifying  : php-cli-5.4.16-46.amzn2.0.2.x86_64
  Verifying  : php-common-5.4.16-46.amzn2.0.2.x86_64

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:

Complete!
[ec2-user@ip-172-31-80-45 ~]$
```

3) index.php file code

```
ec2-user@ip-172-31-80-45:/var/www/html/face
sudo mv featured-images1.jpg captains.jpg

*/
error_reporting(0);

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

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

$bucket = 'aws-ethnus-webinar-project';
$keyname = 'captains.jpg';

$s3 = S3Client::factory([
    'profile'      => 'default',
    'region'       => 'us-east-1',
    'version'      => '2006-03-01',
    'signature'    => 'v4'
]);

try {
    // Upload data.
    $result = $s3->putObject([
        'Bucket'     => $bucket,
        'Key'        => $keyname,
        'SourceFile' => __DIR__ . "/$keyname",
        'ACL'        => 'public-read'
    ]);

    // 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;
}

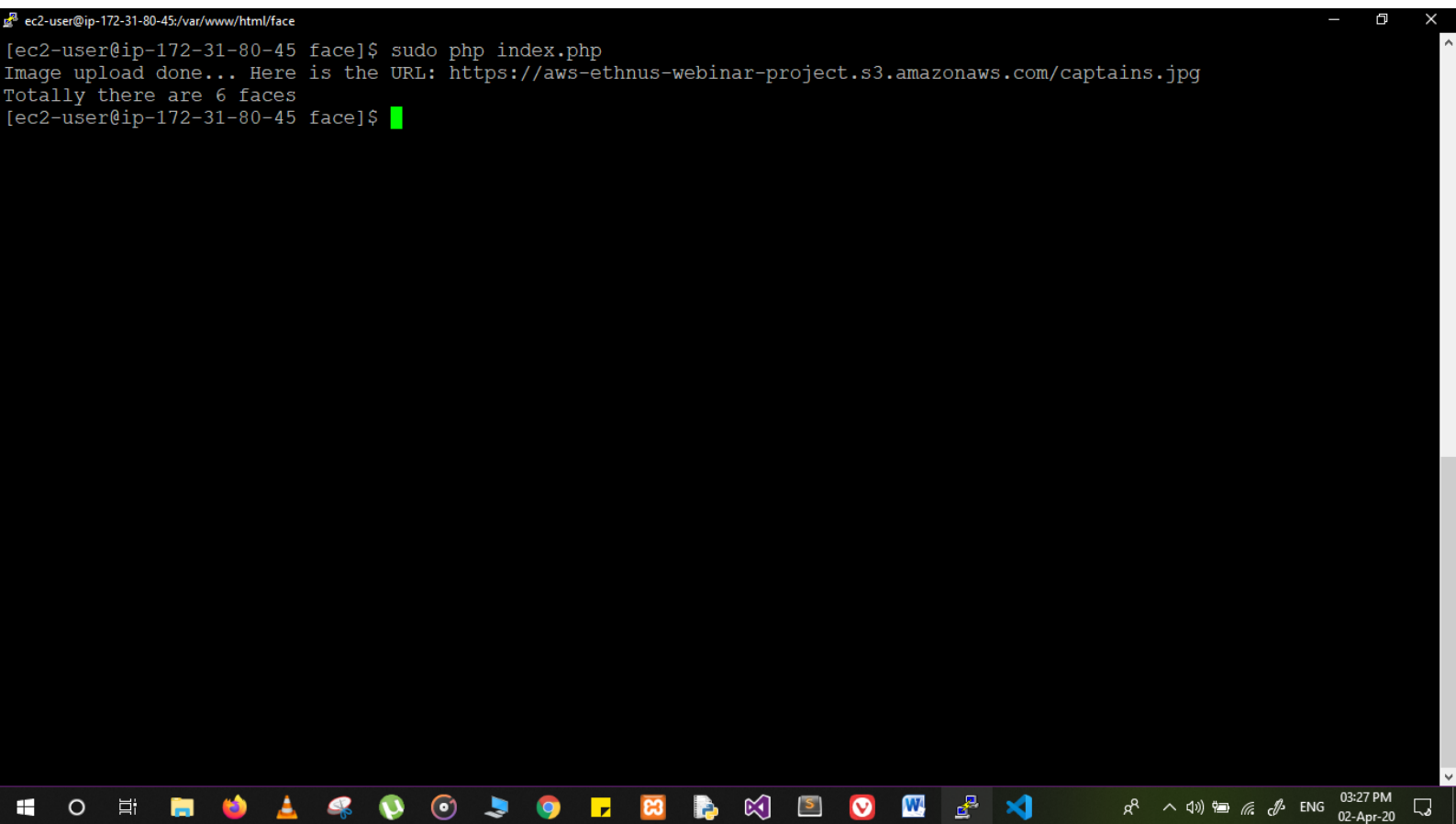
:wg
```

4) Upload success screenshot

```
ec2-user@ip-172-31-80-45:/var/www/html/face
[ec2-user@ip-172-31-80-45 face]$ sudo vim index.php
[ec2-user@ip-172-31-80-45 face]$ php index.php
Image upload done... Here is the URL: https://aws-ethnus-webinar-project.s3.amazonaws.com/captains.jpg[
[ec2-user@ip-172-31-80-45 face]$
```

F) Screenshots for EC2 & Rekognition

1) Face Detect success screenshot



A terminal window titled "ec2-user@ip-172-31-80-45:/var/www/html/face" displays the output of a PHP script. The script has successfully processed an image and returned the following text:

```
[ec2-user@ip-172-31-80-45 face]$ sudo php index.php
Image upload done... Here is the URL: https://aws-ethnus-webinar-project.s3.amazonaws.com/captains.jpg
Totally there are 6 faces
[ec2-user@ip-172-31-80-45 face]$
```

The terminal window is running on a Linux system. The bottom of the image shows a Windows taskbar with various application icons and a system tray on the right indicating the time as 03:27 PM on 02-Apr-20.