

# **AWS-CLOUD**

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# Agenda

- Connect Windows EC2 instance
- Introduction to AWS Console  
Introduction to IaaS  
Hands-on - Elastic Compute cloud (EC-2) Windows instance  
Connect to Windows Instance  
Configure Web server on Windows Instance

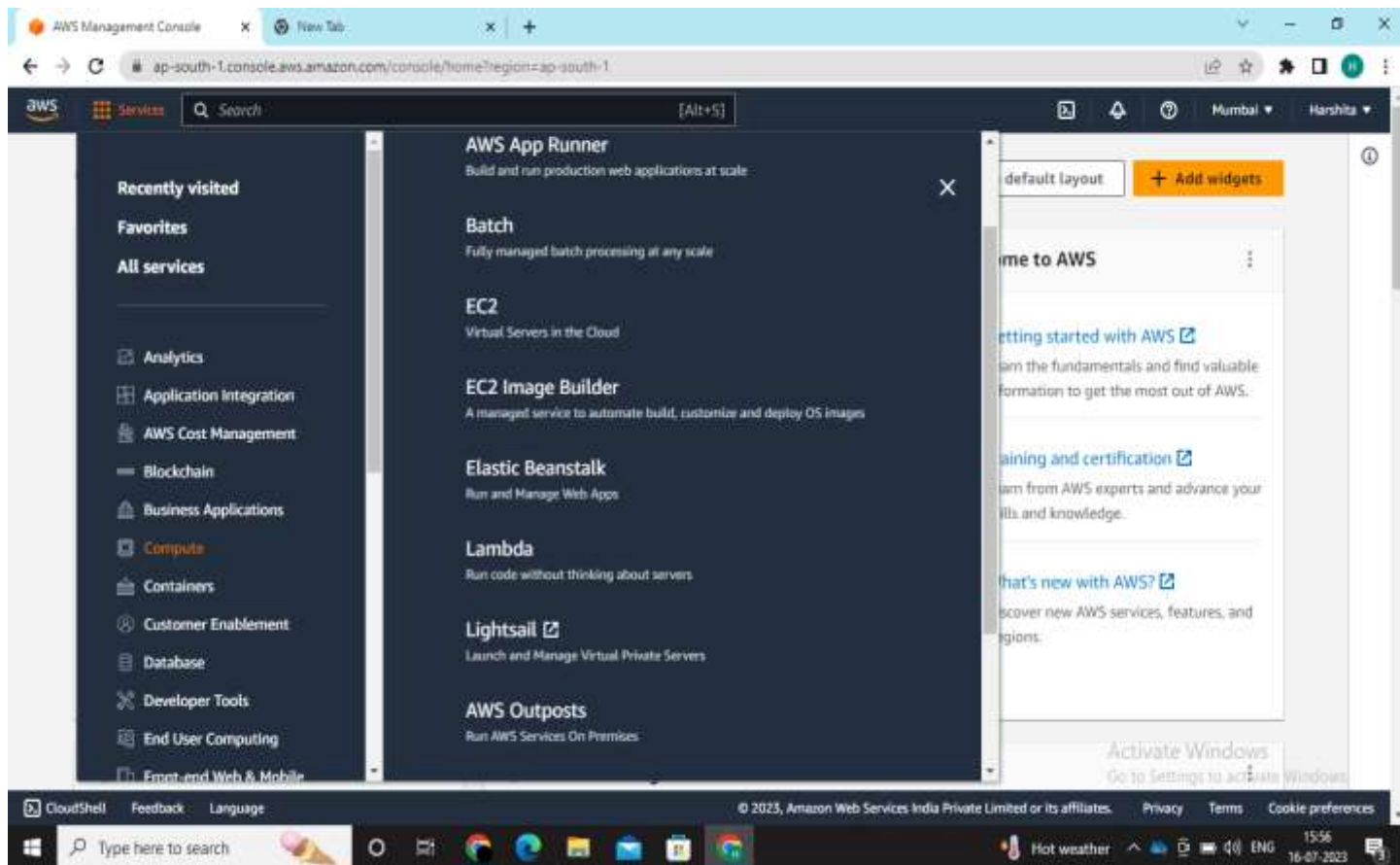
## Tasks

- 1. Create windows free tier EC2 instance
  2. Install XAMPP webserver on it
  3. Deploy personal website on it
  4. Terminate EC2 instance

# Connect Windows EC2 instance

Hands-on - Elastic Compute cloud (EC-2) Windows instance->IaaS

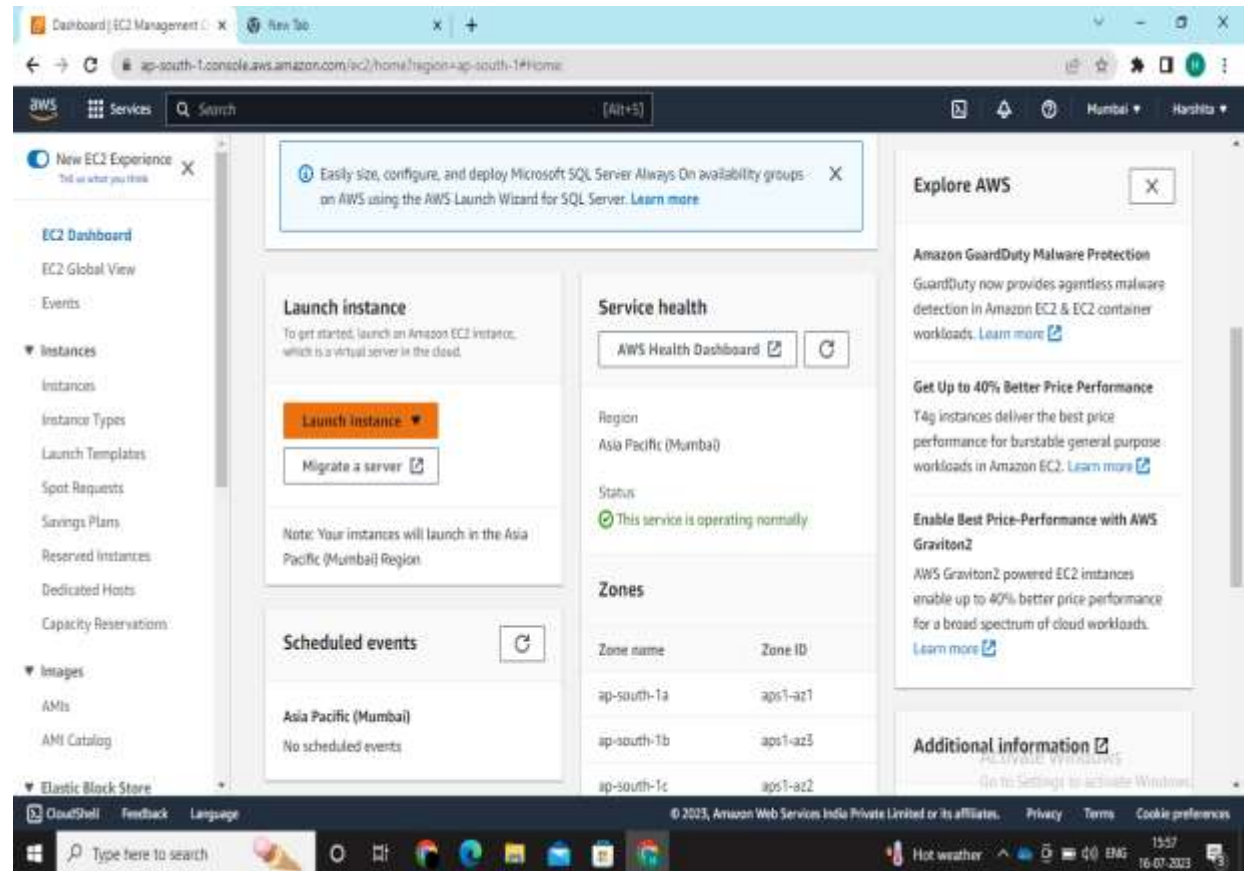
EC-2->set up & configure the Operating Systems and applications that run on your instance



# Steps for Launching a Instance

EC2>Instance->Launch Instance

- Name & tags
- Application and OS Image(AMI)
- Instance type
- Key pair(Login)
- Network Settings
- Configure Storage
- Advance details



# Give Name & Tags-TalentNextWindows

Launch an instance | EC2 Manag... X New Tab

ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#LaunchInstances

aws Services Search [Alt+S]

Mumbai Harshita

EC2 > Instances > Launch an instance

## Launch an instance [Info](#)

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

### Name and tags [Info](#)

Name

[Add additional tags](#)

### ▼ Application and OS Images (Amazon Machine Image) [Info](#)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

### ▼ Summary

Number of instances [Info](#)

Software Image (AMI)

Amazon Linux 2023 AMI 2023.1.2...[read more](#)  
ami-0d13e640877b0b9

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 8 GiB

Go to the previous instance in the Windows

Review commands

CloudShell Feedback Language

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Type here to search

Hot weather 15:57 16-07-2023

Selecting windows operating systems as windows in AMI ,as AMI has 47 OS available on aws-cloud

The screenshot displays the AWS Management Console interface for launching an EC2 instance. The browser address bar shows the URL: `ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#LaunchInstances:`. The console header includes the AWS logo, a search bar, and navigation links for Services, Mumbai, and Harshita.

The main content area is divided into two panels. The left panel, titled "Application and OS Images (Amazon Machine Image)", provides information about AMIs and a search bar. Below the search bar, there are tabs for "Recents" and "Quick Start". The "Quick Start" tab is active, showing a grid of OS options: Amazon Linux, macOS, Ubuntu, Windows, Red Hat, and SUSE Linux. The "Windows" option is highlighted. Below the grid, the "Amazon Machine Image (AMI)" section shows the selected AMI: "Amazon Linux 2023 AMI" with details like "ami-0d13e3e640877b0b9 (64-bit (x86)) / ami-0f203c26f765c6b32 (64-bit (Arm))".

The right panel, titled "Summary", displays the configuration details for the instance launch. It includes fields for "Number of instances" (set to 1), "Software Image (AMI)" (Amazon Linux 2023 AMI 2023.1.2...), "Virtual server type (instance type)" (t2.micro), "Firewall (security group)" (New security group), and "Storage (volumes)" (1 volume(s) - 8 GiB). At the bottom of the summary panel, there are buttons for "Cancel" and "Launch Instance".

The bottom of the screenshot shows the Windows taskbar with the search bar, task view button, and several open applications including CloudShell, Feedback, and Language. The system tray shows the date and time as 15:57 on 16-07-2023.

Select Instance Type as t2.micro which is free and Key Pair(login) allows you to connect to your instance securely and here you need to download the created key pair to your desktop

Launch an instance | EC2 Management Console

ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#LaunchInstances:

**Instance type** Info

Instance type

t2.micro  
Family: t2 1 vCPU 1 GiB Memory Current generation: true  
On-Demand Linux pricing: 0.0124 USD per Hour  
On-Demand Windows pricing: 0.017 USD per Hour  
On-Demand RHEL pricing: 0.0724 USD per Hour  
On-Demand SUSE pricing: 0.0124 USD per Hour

Free tier eligible

All generations

Compare instance types

**Key pair (login)** Info

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - required

Select

Create new key pair

**Summary**

Number of instances Info

1

Software Image (AMI)

Amazon Linux 2023 AMI 2023.1.2...read more  
ami-0d13e3e640877b0b9

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 8 GiB

Cancel Launch Instance

Go to Settings to activate Windows

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32°C Mostly cloudy 15:58 16-07-2023



Network Settings you need to create the security group where we have options RDP to connect with instance ,SMTP to mails ,HTTP to web servers

The screenshot shows the AWS Management Console 'Launch Instance' wizard, specifically the 'Network settings' page. The page is divided into two main sections: 'Network settings' on the left and 'Summary' on the right.

**Network settings:**

- Network:** vpc-02556504be0909c4d
- Subnet:** No preference (Default subnet in any availability zone)
- Auto-assign public IP:** Enable
- Firewall (security groups):** A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.
  - ☒ Create security group
  - ☐ Select existing security group
- Rules:** We'll create a new security group called 'launch-wizard-2' with the following rules:
  - ☒ Allow SSH traffic from: Helps you connect to your instance. Source: Anywhere (0.0.0.0/0)
  - ☐ Allow HTTPS traffic from the internet: To set up an endpoint, for example when creating a web server.
  - ☐ Allow HTTP traffic from the internet: To set up an endpoint, for example when creating a web server.

**Summary:**

- Number of instances:** 1
- Software Image (AMI):** Amazon Linux 2023 AMI 2023.1.2...read more (ami-0d13e3e640877b0b9)
- Virtual server type (instance type):** t2.micro
- Firewall (security group):** New security group
- Storage (volumes):** 1 volume(s) - 8 GiB

At the bottom right, there are 'Cancel' and 'Launch Instance' buttons. A warning message at the bottom states: 'Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting...'



Configure Storage –select 30GB and General purpose SSD(gp2) or magnetic storage & Advance details as default

Launch an instance | EC2 Management Console

ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#LaunchInstances:

aws Services Search [Alt+S]

Mumbai Harshita

### Configure storage [Info](#) Advanced

1x 8 GiB gp3 Root volume (Not encrypted)

Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage

Add new volume

0 x File systems [Edit](#)

### Advanced details [Info](#)

Purchasing option [Info](#)

☐ Request Spot Instances

Domain join directory [Info](#)

Select [Create new directory](#)

IAM instance profile [Info](#)

### Summary

Number of instances [Info](#)

1

Software Image (AMI)

Amazon Linux 2023 AMI 2023.1.2...[read more](#)  
ami-0d13e3e640877b0b9

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 8 GiB

Cancel [Launch Instance](#)

Go to Settings to activate Windows

CloudShell Feedback Language

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# Launch Instance

The screenshot displays the AWS Management Console for the 'ap-south-1' region. The 'Instances' page shows a single instance, 'TalentNextWindows', with ID 'i-03ab99914bd769ec6', in a 'Running' state. The instance is a 't2.micro' type. Below the instance list, the 'Details' tab is selected, showing the instance summary. The summary includes the instance ID, public IPv4 address (3.110.143.87), private IPv4 address (172.31.39.251), and public IPv4 DNS name (ec2-3-110-143-87.ap-south-1.compute.amazonaws.com). The instance state is confirmed as 'Running'. The console also shows a sidebar with navigation options like 'EC2 Dashboard', 'EC2 Global View', 'Events', 'Instances', 'Instance Types', 'Launch Templates', 'Spot Requests', 'Savings Plans', 'Reserved Instances', 'Dedicated Hosts', 'Capacity Reservations', 'Images', 'AMI Catalog', and 'Elastic Block Store'. The bottom of the screen shows the Windows taskbar with the search bar and various application icons.

Instances | EC2 Management Console | New Tab

ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#instances:

aws Services Search [Alt+S]

New EC2 Experience Tell us what you think

EC2 Dashboard  
EC2 Global View  
Events

▼ Instances  
Instances  
Instance Types  
Launch Templates  
Spot Requests  
Savings Plans  
Reserved Instances  
Dedicated Hosts  
Capacity Reservations

▼ Images  
AMIs  
AMI Catalog

▼ Elastic Block Store

Instances (1/1) Info

Find instance by attribute or tag (case-sensitive)

Connect Instance state Actions Launch instances

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
TalentNextWindows	i-03ab99914bd769ec6	Running	t2.micro	2/2 checks passed	No alarms	ap-south-1a

Instance: i-03ab99914bd769ec6 (TalentNextWindows)

Details Security Networking Storage Status checks Monitoring Tags

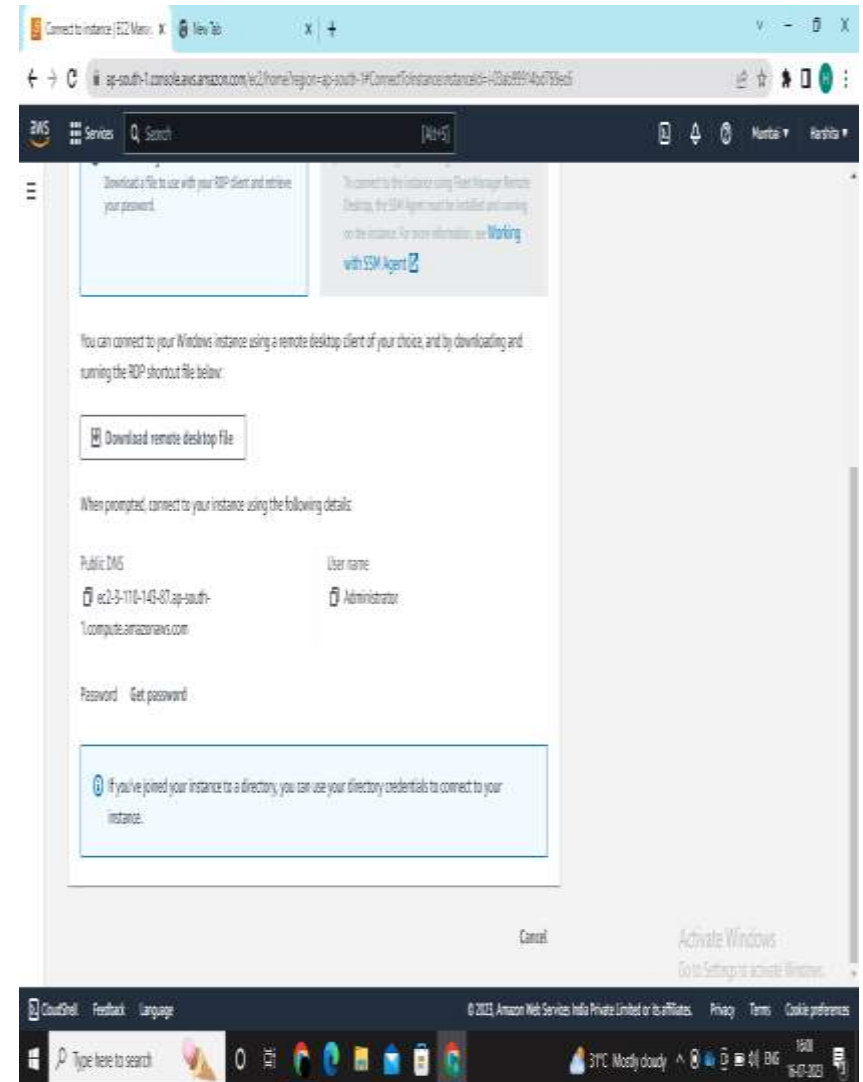
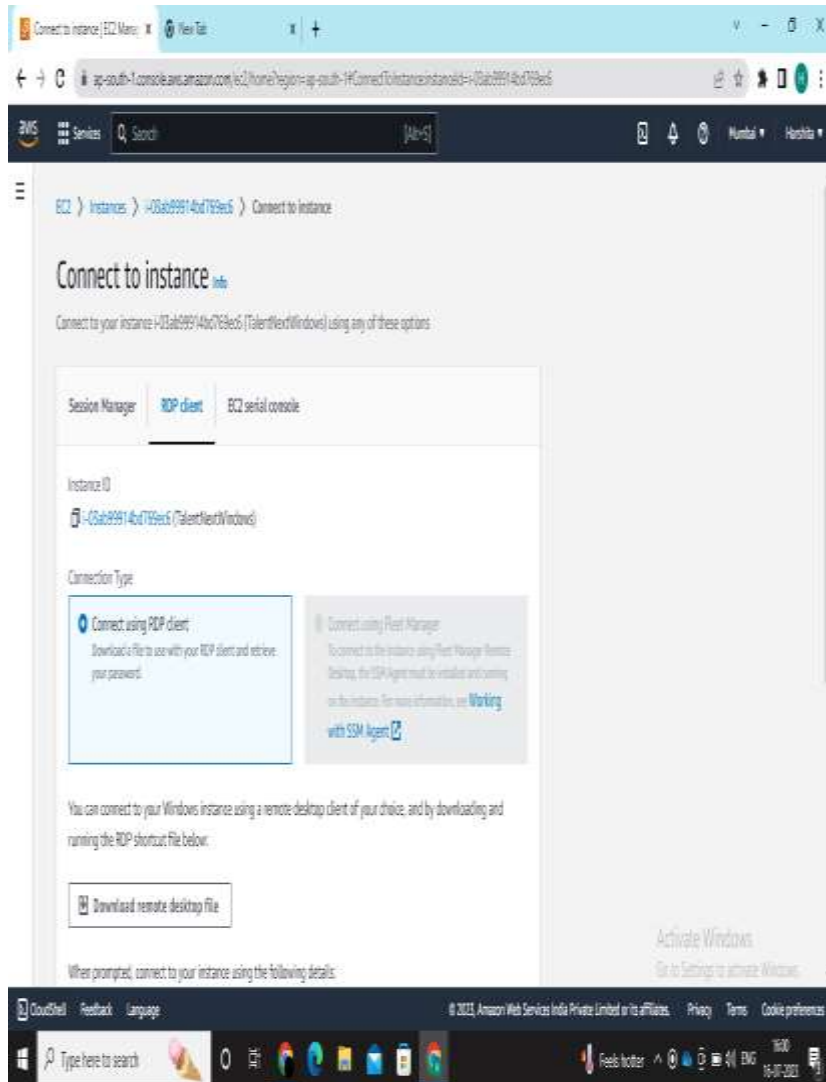
▼ Instance summary Info

Instance ID i-03ab99914bd769ec6 (TalentNextWindows)	Public IPv4 address 3.110.143.87   open address	Private IPv4 addresses 172.31.39.251
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-3-110-143-87.ap-south-1.compute.amazonaws.com   open address
Hostname type IP name: ip-172-31-39-251.ap-south-	Private IP DNS name (IPv4 only) ip-172-31-39-251.ap-south-1.compute.internal	Activate Windows Go to Settings to activate Windows.

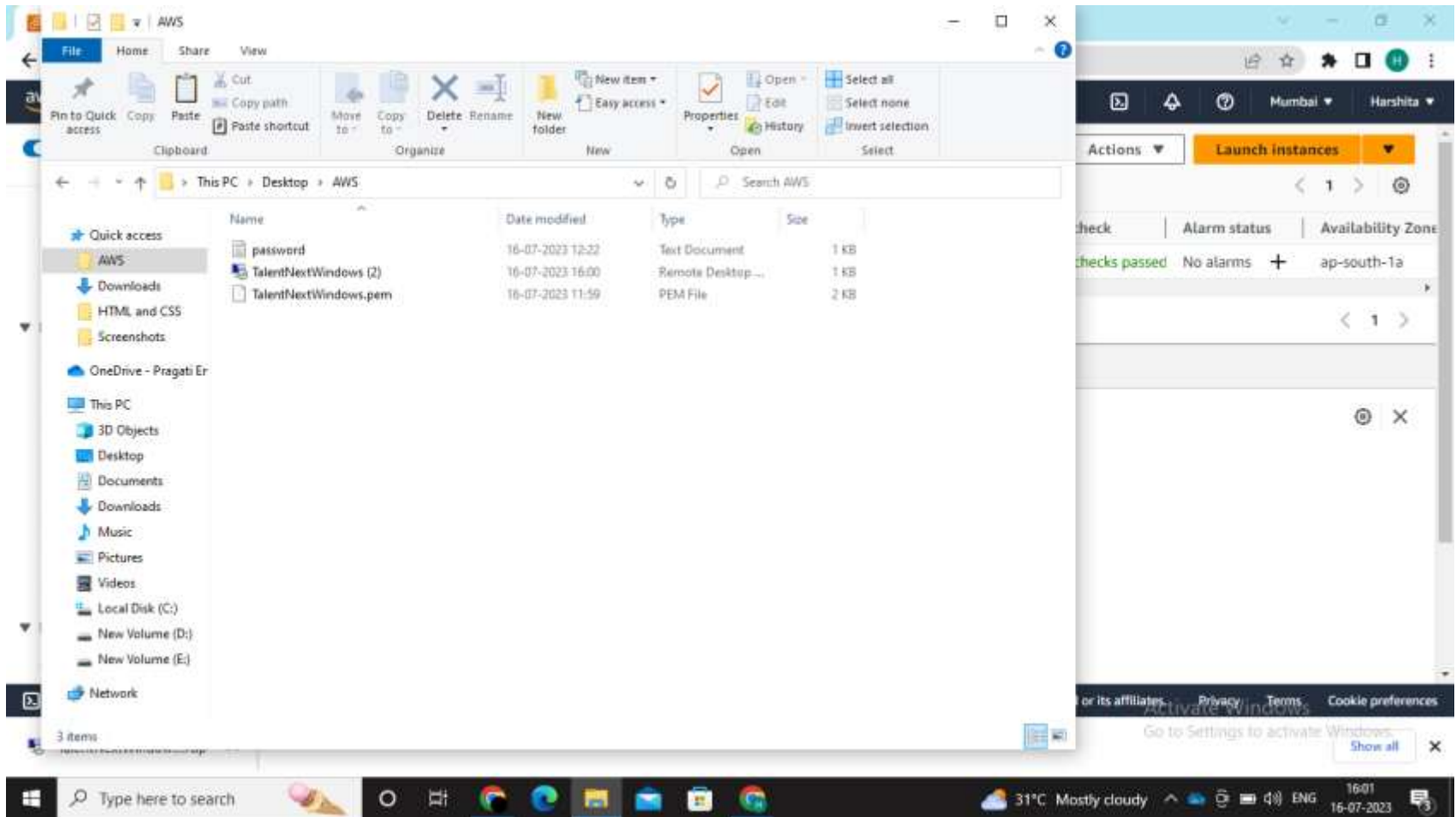
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Feels hotter 15:59 16-07-2023

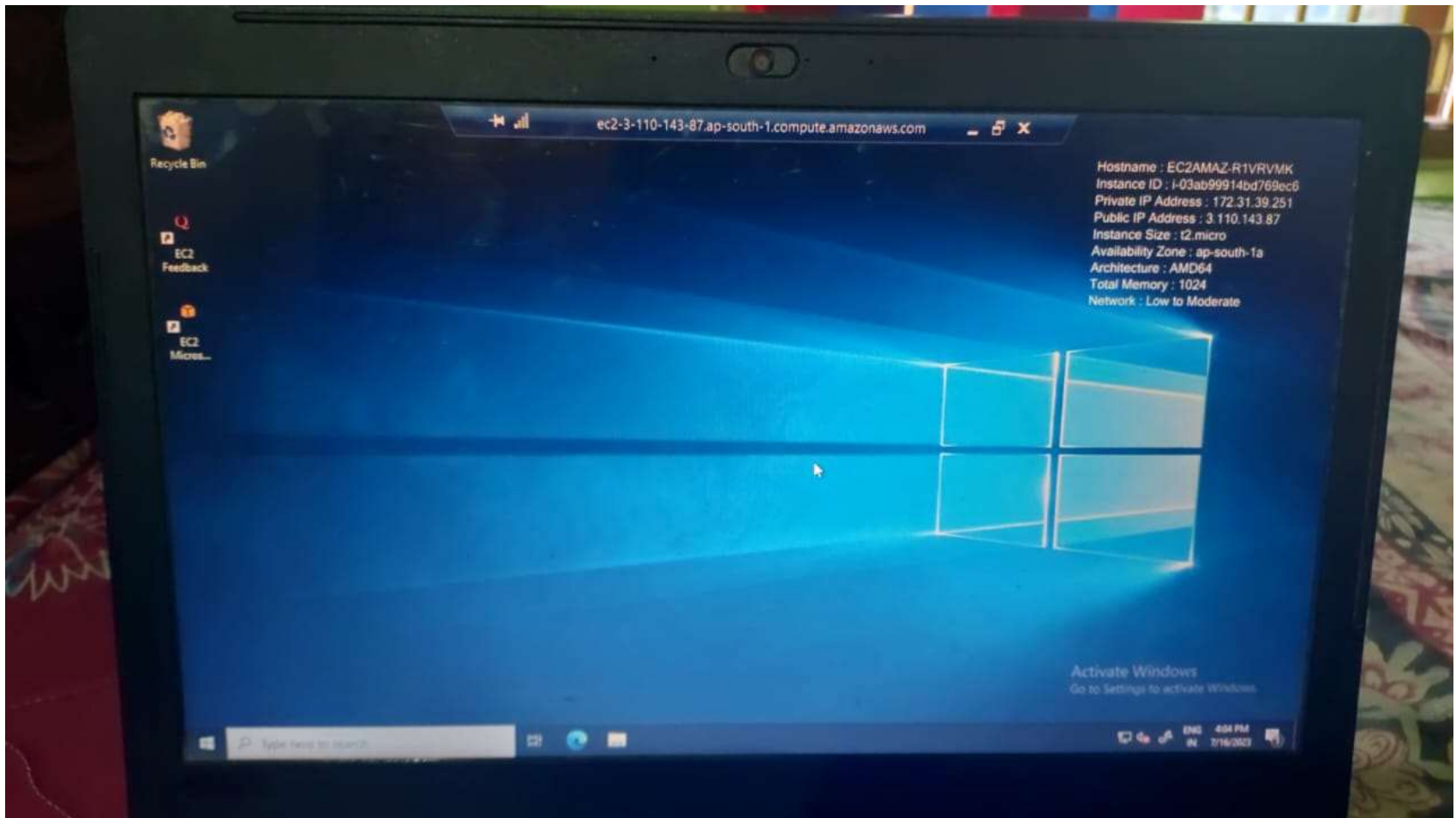
Now connect the instance to RDP Client and download the the desktop file and copy the password



Now open the desktop file and enter the password you copied the your virtual machine that you created will be opened.



Created Virtual machine will look like this

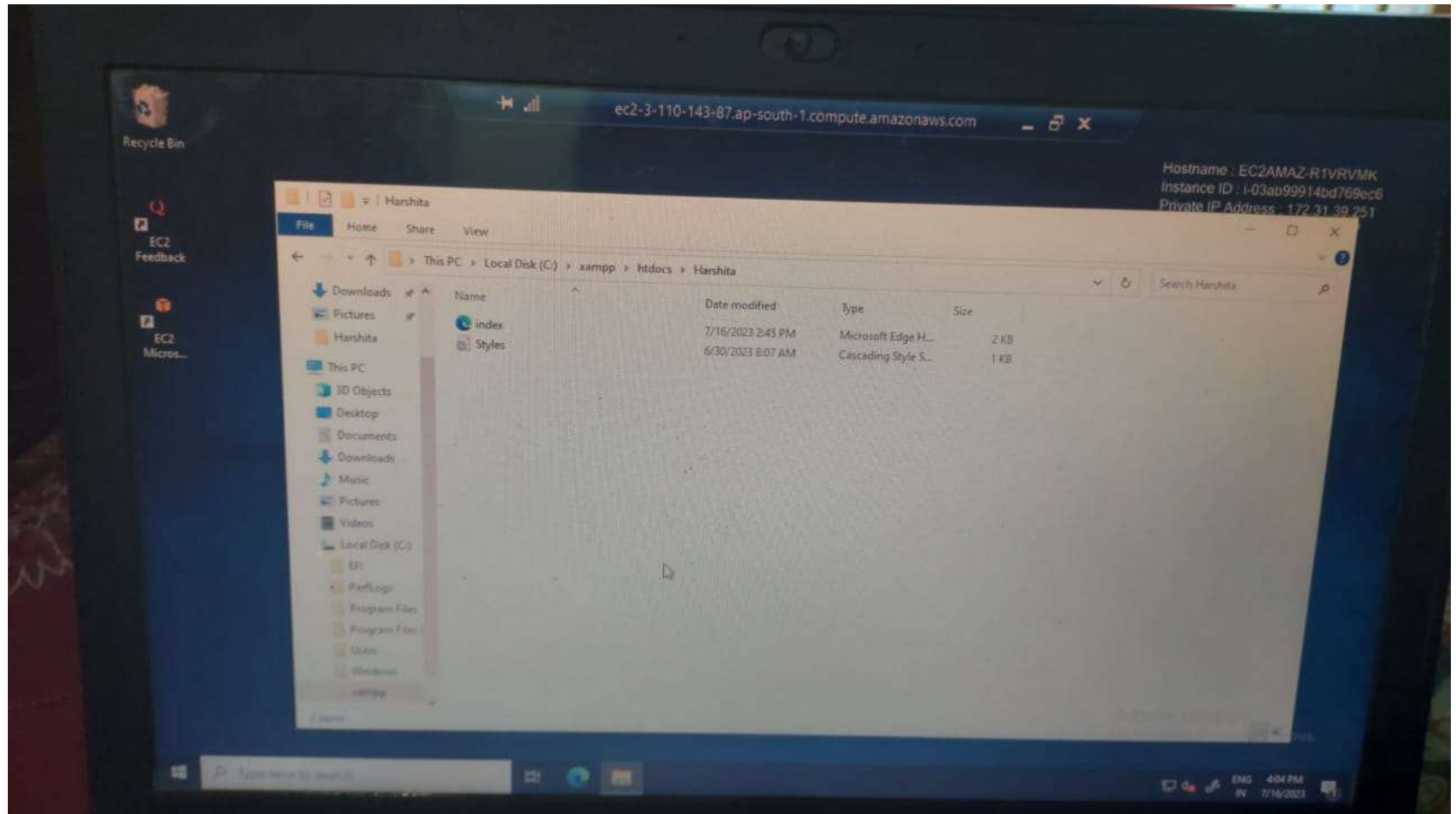


Install XAMPP webserver on it

Open XAMPP start Apache (has port 80,443)

c-drive->xampp->htdocs->create a new folder(x)->create files like html,css etc

Deploy our website on it as follows





Create the inbound rules to permit the request outside the cloud and keep the outbound rules as default as the request are allowed from aws cloud to outside world

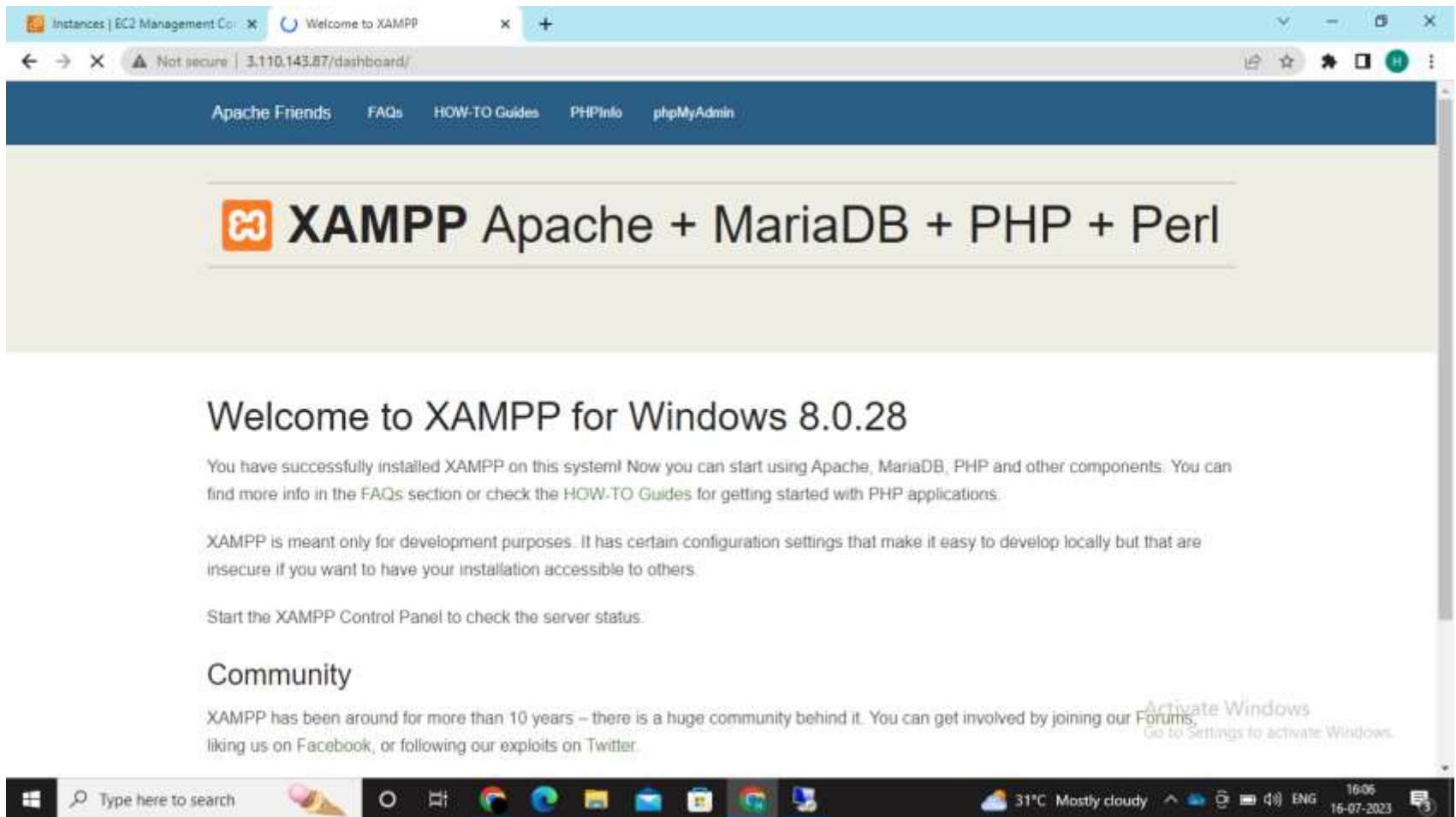
The screenshot displays the AWS Management Console interface for the 'Instances' section. The left sidebar shows navigation options like 'EC2 Dashboard', 'EC2 Global View', 'Events', 'Instances', 'Instance Types', 'Launch Templates', 'Spot Requests', 'Savings Plans', 'Reserved Instances', 'Dedicated Hosts', 'Capacity Reservations', 'Images', 'AMIs', 'AMI Catalog', and 'Elastic Block Store'. The main content area shows the details for instance 'i-03ab99914bd769ec6 (TalentNextWindows)'. A table titled 'Filter rules' lists the security group rules for this instance.

Name	Security group rule ID	Port range	Protocol	Source
-	sgr-0d1711884688115e5	443	TCP	::/0
-	sgr-0d36ccf8960140d9c	3389	TCP	0.0.0.0/0
-	sgr-0296864d403331870	80	TCP	::/0
-	sgr-0170f2142b2a96a9f	80	TCP	0.0.0.0/0
-	sgr-076410e445cf323b2	443	TCP	0.0.0.0/0

The bottom of the screenshot shows the Windows taskbar with the search bar, task view button, and several application icons. The system tray displays the date and time as 16:09 on 16-07-2023, along with weather information (31°C, Mostly cloudy) and language settings (ENG).



Now open the instance that you have created then go to details  
Either copy public DNS address or public IPv4 and paste it on the browser of  
your device then the default XAMPP window will be opened



Now change the xampp dashboard to the created folder for example  
65.1.136.174/dashboard/--→65.1.136.174/foldername  
Now terminate the instance that you have created lastly

**Registration Form**

First Name:

Last Name:

Password:

Confirm Password:

Gender: ☒ Male ☐ Female

Mobile Number:

Format: 123-456-7890

DOB:

Email Address:

Activate Windows  
Go to Settings to activate Windows.

Windows taskbar: Type here to search, 31°C Mostly cloudy, 16:06 16-07-2023