

Project 2: Hosting a Website on AWS EC2

1: Launch and Connect to an EC2 Instance

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 EC2, IAM, and S3. The breadcrumb trail indicates the path: `EC2 > Instances > Launch an instance`.

The main content area is titled "Launch an instance" with an "Info" link. Below the title, a brief description states: "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."

The configuration steps are as follows:

- Name and tags:** The "Name" field is set to "Machine-1". There is an "Add additional tags" link.
- Application and OS Images (Amazon Machine Image):** A search bar is present with the placeholder text "Search our full catalog including 1000s of application and OS images". Below the search bar, there are tabs for "Recents" and "Quick Start". Under "Quick Start", several AMI options are displayed: Amazon Linux, macOS, Ubuntu (selected), Windows, Red Hat, SUSE Linux, and Debian. A "Browse more AMIs" link is also visible.

The right-hand sidebar contains a "Summary" section with the following details:

- Number of instances:** 1
- Software Image (AMI):** Canonical, Ubuntu, 24.04, amd64...[read more](#) (ami-00bb6a80f01f03502)
- Virtual server type (instance type):** t2.micro
- Firewall (security group):** New security group
- Storage (volumes):** 1 volume(s) - 8 GiB

At the bottom of the console, there are three buttons: "Cancel", "Launch instance" (in orange), and "Preview code". The footer of the console shows the copyright notice: "© 2025, Amazon Web Services, Inc. or its affiliates." and links for "Privacy", "Terms", and "Cookie preferences".

2. Choose an Amazon Machine Image (AMI) (e.g., Ubuntu, Amazon Linux).

Launch an instance | EC2 | ap-south-1

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

EC2 IAM S3

EC2 > Instances > Launch an instance

Amazon Linux macOS **Ubuntu** Windows Red Hat SUSE Linux Debian

Amazon Machine Image (AMI)

Ubuntu Server 24.04 LTS (HVM), SSD Volume Type
ami-00bb6a80f01f03502 (64-bit (x86)) / ami-09773b29dffbef1f2 (64-bit (Arm))
Virtualization: hvm ENA enabled: true Root device type: ebs

Free tier eligible

Description

Ubuntu Server 24.04 LTS (HVM),EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>).

Canonical, Ubuntu, 24.04, amd64 noble image

Architecture
64-bit (x86)

AMI ID
ami-00bb6a80f01f03502

Username
ubuntu

Verified provider

Summary

Number of instances 1

Software Image (AMI)
Canonical, Ubuntu, 24.04, amd64...[read more](#)
ami-00bb6a80f01f03502

Virtual server type (instance type)
t2.micro

Firewall (security group)
New security group

Storage (volumes)
1 volume(s) - 8 GiB

Cancel Launch instance Preview code

CloudShell Feedback

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500510 -1.21%

Search

ENG IN 10:49 25-02-2025

3. Select an instance type (e.g., t2.micro for free tier).

4. Choose an existing key pair or create a new one for SSH access.

Launch an instance | EC2 | ap-south-1

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

aws Search [Alt+S]

EC2 IAM S3

EC2 > Instances > Launch an instance

▼ Instance type Info | Get advice

Instance type

t2.micro Free tier eligible

Family: t2 1 vCPU 1 GiB Memory Current generation: true

On-Demand Linux base pricing: 0.0124 USD per Hour

On-Demand Windows base pricing: 0.017 USD per Hour

On-Demand RHEL base pricing: 0.0268 USD per Hour

On-Demand Ubuntu Pro base pricing: 0.0142 USD per Hour

On-Demand SUSE base pricing: 0.0124 USD per Hour

Additional costs apply for AMIs with pre-installed software

☐ 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

web-server

[Create new key pair](#)

▼ Summary

Number of instances Info

1

Software Image (AMI)

Canonical, Ubuntu, 24.04, amd64...[read more](#)

ami-00bb6a80f01f03502

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 8 GiB

[Cancel](#) [Launch instance](#) [Preview code](#)

CloudShell Feedback

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Search

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5. Configure instance details and set up security groups

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 navigation bar at the top includes the AWS logo, a search bar, and navigation links for EC2, IAM, and S3. The user is logged in as Gaurav in the Asia Pacific (Mumbai) region.

The main content area is titled "Launch an instance" and is divided into two main sections: "Network settings" and "Summary".

Network settings (with an "Edit" button):

- Network:** `vpc-0ed92c07c82594a96` (Info link).
- Subnet:** "No preference (Default subnet in any availability zone)" (Info link).
- Auto-assign public IP:** "Enable" (Info link). A note states: "Additional charges apply when outside of free tier allowance".
- Firewall (security groups):** (Info link). A description states: "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." Below this, there are two radio buttons: "Create security group" (selected) and "Select existing security group".
- A message states: "We'll create a new security group called 'launch-wizard-2' with the following rules:"
- Rules configuration:
 - ☒ **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).
- A warning banner at the bottom states: "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..."

Summary (with an "Edit" button):

- Number of instances:** 1 (Info link).
- Software Image (AMI):** Amazon Linux 2023 AMI 2023.6.2... (read more link). AMI ID: `ami-0d682f26195e9ec0f`.
- Virtual server type (instance type):** `t2.micro`.
- Firewall (security group):** New security group.
- Storage (volumes):** 1 volume(s) - 8 GiB.
- At the bottom of the summary panel, there are two buttons: "Cancel" and "Launch instance" (highlighted in orange). Below the "Launch instance" button is a link: "Preview code".

The footer of the console shows the copyright notice: "© 2025, Amazon Web Services, Inc. or its affiliates." and links for "Privacy", "Terms", and "Cookie preferences". The system clock at the bottom right indicates the time is 16:36 on 04-03-2025.

ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#Instances:v=3;\$case=tags:true%5C,client:false;\$regex=tags:false%5C,client:false

aws

Search

[Alt+S]

EC2

IAM

S3

Asia Pacific (Mumbai)

Gaurav

EC2 > Instances

Instances (1) Info

Last updated less than a minute ago

Connect

Instance state

Actions

Launch instances

Find Instance by attribute or tag (case-sensitive)

All states

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IP
<input type="checkbox"/>	Machine-1	i-0003e3af5e128d628	Running	t2.micro	2/2 checks passed	View alarms	ap-south-1b	ec2-13-2

Select an instance

CloudShell

Feedback

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Privacy

Terms

Cookie preferences

Finance headline

No mention of U...

Search

ENG IN

10:52

25-02-2025

ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#InstanceDetails:instanceId=i-0003e3af5e128d628

EC2 IAM S3

EC2 > Instances > i-0003e3af5e128d628

EC2<div>DashboardEC2 Global ViewEventsInstancesInstances TypesLaunch TemplatesSpot RequestsSavings PlansReserved InstancesDedicated HostsCapacity ReservationsImagesAMIsAMI CatalogElastic Block StoreVolumes

Instance summary for i-0003e3af5e128d628 (Machine-1) Info

Updated less than a minute ago

Instance IDi-0003e3af5e128d628

IPv6 address-

Hostname typeIP name: ip-172-31-4-72.ap-south-1.compute.internal

Answer private resource DNS nameIPv4 (A)

Auto-assigned IP address13.233.45.66 [Public IP]

IAM Role-

Public IPv4 address13.233.45.66 | open address

Instance stateRunning

Private IP DNS name (IPv4 only)ip-172-31-4-72.ap-south-1.compute.internal

Instance typet2.micro

VPC IDvpc-0ed92c07c82594a96

Subnet IDsubnet-0816434c49f7504da

Private IPv4 addresses172.31.4.72

Public IPv4 DNSec2-13-233-45-66.ap-south-1.compute.amazonaws.com | open address

Elastic IP addresses-

AWS Compute Optimizer findingOpt-in to AWS Compute Optimizer for recommendations. | Learn more

Auto Scaling Group name-

CloudShellFeedback

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Finance headlineNo mention of U...ENG IN10:5225-02-2025

6. Upload and Configure Website Files

The screenshot shows the AWS CloudShell interface within the AWS Management Console. The browser tabs at the top include 'Inbox - pawargaurav1443...', 'Instances | EC2 | ap-south-1', 'EC2 Instance Connect | ap-south-1', 'Curl Command Fix', 'Carvilla Free Website Temp', and 'CarVilla'. The address bar shows the URL: `ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?region=ap-south-1&connType=standard&instanceId=i-0accd208dad729e28&osUser=ec2-user&sshPort=22&addressFa...`. The AWS console header shows the user 'Gaurav' in the 'Asia Pacific (Mumbai)' region. The terminal window displays the following commands and output:

```
creating: /var/www/html/carvilla-v1.0/assets/logo/
inflating: /var/www/html/carvilla-v1.0/assets/logo/favicon.png
inflating: /var/www/html/carvilla-v1.0/index.html
inflating: /var/www/html/carvilla-v1.0/readme.txt
[root@ip-172-31-7-70 ~]# ls
carvilla.zip
[root@ip-172-31-7-70 ~]# cd /var/www/html
[root@ip-172-31-7-70 html]# ls
carvilla-v1.0  index.html
[root@ip-172-31-7-70 html]# cat index.html
[root@ip-172-31-7-70 html]# mkdir index.html
mkdir: cannot create directory 'index.html': File exists
[root@ip-172-31-7-70 html]# rm index.html
rm: remove regular empty file 'index.html'? y
[root@ip-172-31-7-70 html]# mkdir index.html
[root@ip-172-31-7-70 html]# ls
carvilla-v1.0  index.html
[root@ip-172-31-7-70 html]# mv carvilla-v1.0/* index.html
[root@ip-172-31-7-70 html]# ls
carvilla-v1.0  index.html
[root@ip-172-31-7-70 html]# cd carvilla-v1.0/
[root@ip-172-31-7-70 carvilla-v1.0]# ls
[root@ip-172-31-7-70 carvilla-v1.0]# cd ..
[root@ip-172-31-7-70 html]# cd index.html/
[root@ip-172-31-7-70 index.html]# ls
assets  index.html  readme.txt
[root@ip-172-31-7-70 index.html]#
```

Below the terminal, the instance ID **i-0accd208dad729e28 (M-1)** is displayed, along with its Public IP (15.207.21.241) and Private IP (172.31.7.70). The footer of the CloudShell interface shows the copyright notice '© 2025, Amazon Web Services, Inc. or its affiliates.' and links for 'Privacy', 'Terms', and 'Cookie preferences'. The system tray at the bottom indicates a temperature of 34°C, sunny weather, and the time 18:02 on 26-02-2025.

7. Access Your Website

