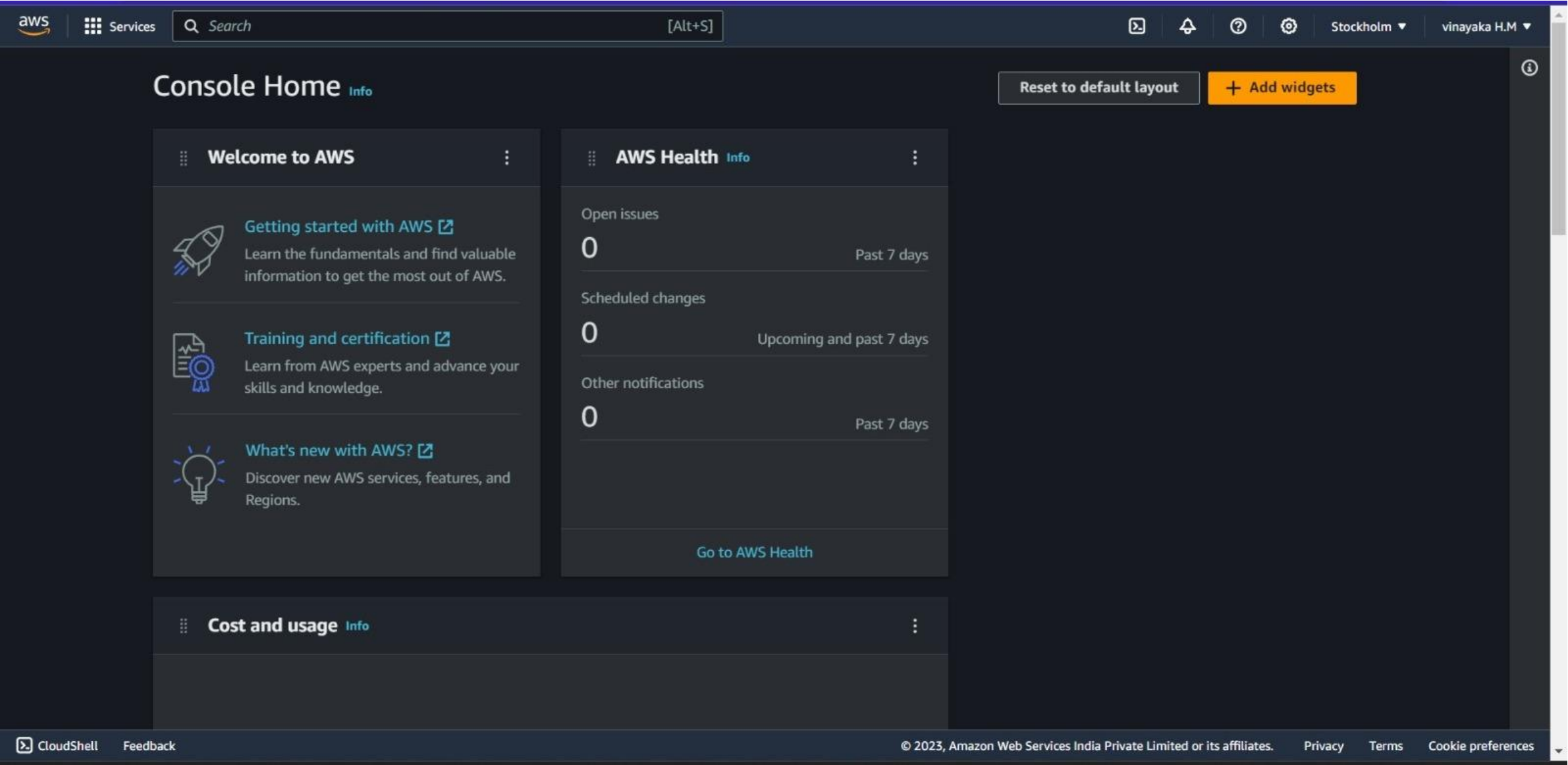


**TASK 3: Launching EC2 instance of Linux and installing Apache web server with default html page by adding user data in Launch configuration.**

**STEP 1: Login to the AWS management**



## STEP 1: Login to the AWS management

The screenshot shows the AWS Management Console interface. At the top, there's a navigation bar with the AWS logo, a 'Services' button, a search bar with the placeholder text 'Search' and a keyboard shortcut '[Alt+S]', and utility icons for layout, notifications, help, and settings. The region is set to 'Stockholm' and the user is 'vinayaka H.M.'. On the left, a sidebar lists 'Recently visited', 'Favorites', and 'All services'. The 'All services' list includes Analytics, Application Integration, AWS Cost Management, Blockchain, Business Applications, Compute, Containers, Customer Enablement, Database, Developer Tools, End User Computing, Front-end Web & Mobile, Game Development, and Internet of Things. The main content area is titled 'Recently visited' and contains a 'Console Home' widget with the description 'View resource insights, service shortcuts, and feature updates'. Below this are three service shortcuts: 'EC2' (Virtual Servers in the Cloud), 'S3' (Scalable Storage in the Cloud), and 'RDS' (Managed Relational Database Service). On the right side of the main content area, there are two buttons: 'Reset to default layout' and '+ Add widgets'. The footer contains the URL 'https://eu-north-1.console.aws.amazon.com/ec2/home?region=eu-north-1', the copyright notice '© 2023, Amazon Web Services India Private Limited or its affiliates.', and links for 'Privacy', 'Terms', and 'Cookie preferences'.

aws Services Search [Alt+S]

Stockholm vinayaka H.M.

Reset to default layout + Add widgets

**Recently visited**

**Favorites**

**All services**

- Analytics
- Application Integration
- AWS Cost Management
- Blockchain
- Business Applications
- Compute
- Containers
- Customer Enablement
- Database
- Developer Tools
- End User Computing
- Front-end Web & Mobile
- Game Development
- Internet of Things

**Recently visited**

**Console Home**  
View resource insights, service shortcuts, and feature updates

☆ **EC2**  
Virtual Servers in the Cloud


**S3**  
Scalable Storage in the Cloud

**RDS**  
Managed Relational Database Service





https://eu-north-1.console.aws.amazon.com/ec2/home?region=eu-north-1

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**STEP 2:** Now you can search the service called EC2 in search bar and click on the EC2 it will redirect to the EC2 dashboard then click on the Launch Instance

 Services

[Alt+S]



Stockholm ▼

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New EC2 Experience  
Tell us what you think

EC2 Dashboard

EC2 Global View

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▼ Instances

Instances

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances

Dedicated Hosts

Capacity Reservations

▼ Images

AMIs

AMI Catalog


▼ Elastic Block Store

Volumes

Snapshots

Lifecycle Manager


Instances Info

 Connect

Instance state ▼

Actions ▼

Launch instances ▼

< 1 > 

<input type="checkbox"/>	Name ▼	Instance ID	Instance state ▼	Instance type ▼	Status check	Alarm status	Availability Zone ▼	Public IPv4 DNS
No instances								
You do not have any instances in this region								
<div>Launch instances</div>								

Select an instance

https://eu-north-1.console.aws.amazon.com/ec2/home?region=eu-north-1#Instances:

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**STEP 3:** To launch required instance we need to specify required information while launching instance.

1. Provide proper name for instance

aws

Services

Search

[Alt+S]

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EC2 > Instances > Launch an instance

Launch an instance

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

Name

WebInstance

Add additional tags

Application and OS Images (Amazon Machine Image)

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

Search our full catalog including 1000s of application and OS images

Quick Start

Amazon

macOS

Ubuntu

Windows

Red Hat

SUSE Li

Summary

Number of instances

1

Software Image (AMI)

Amazon Linux 2023 AMI 2023.2.2...read more  
ami-071df4a41c6f9ee2e

Virtual server type (instance type)

t3.micro

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 8 GiB

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per

Cancel

Launch instance

Review commands

CloudShell

Feedback

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2. Choose required AMI(Here we need Amazon Linux A)

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Services

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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

Search our full catalog including 1000s of application and OS images

Quick Start

Amazon Linux

macOS

Ubuntu

Windows

Red Hat

SUSE Li

Browse more AMIs

Amazon Machine Image (AMI)

Amazon Linux 2023 AMI

ami-071df4a41c6f9ee2e (64-bit (x86)) / ami-06f913a82bea1dc7a (64-bit (Arm))

Virtualization: hvm    ENA enabled: true    Root device type: ebs

Free tier eligible

Description

Amazon Linux 2023 AMI 2023.2.20231002.0 x86\_64 HVM kernel-6.1

Architecture

AMI ID

64-bit (x86)

ami-071df4a41c6f9ee2e

Verified provider

Summary

Number of instances

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Amazon Linux 2023 AMI 2023.2.2...read more

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Launch instance

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3. Choose required instance type and keypair(here selected already created keypair or you can create new keypair also

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▼ Instance type Info

Instance type

t3.micro

Family: t3 2 vCPU 1 GiB Memory Current generation: true

On-Demand RHEL base pricing: 0.0708 USD per Hour

On-Demand SUSE base pricing: 0.0108 USD per Hour

On-Demand Linux base pricing: 0.0108 USD per Hour

On-Demand Windows base pricing: 0.02 USD per Hour

Free tier eligible

☐ All generations

Compare instance types

Additional costs apply for AMIs with pre-installed software

▼ 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

My-Instance

My-Instance

Create new key pair

▼ Network settings Info

Network Info

Edit

▼ Summary

Number of instances Info

1

Software Image (AMI)

Amazon Linux 2023 AMI 2023.2.2...read more

ami-071df4a41c6f9ee2e

Virtual server type (instance type)

t3.micro

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New security group

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Cancel

Launch instance

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4. Under network setting setting keep default vpc and in security group allow inbound rules SSH and HTTP(because to host web application we need HTTP).

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Services

Search

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Network settings

Edit

Network

vpc-0f24128f6e15e4969

Subnet

No preference (Default subnet in any availability zone)

Auto-assign public IP

Enable

Firewall (security groups)

Create security group

Select existing security group

We'll create a new security group called 'launch-wizard-11' with the following rules:

Allow SSH traffic from

Anywhere

Allow HTTPS traffic from the internet

Allow HTTP traffic from the internet

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.

Summary

Number of instances

1

Software Image (AMI)

Amazon Linux 2023 AMI 2023.2.2...read more

Virtual server type (instance type)

t3.micro

Firewall (security group)

New security group

Storage (volumes)

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Cancel

Launch instance

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5. In under Advanced details there is option called user data enter the user data what and commands you want to run in instance then click on the launch instance

aws

Services

Search

[Alt+S]

Metadata response hop limit

Select

Allow tags in metadata

Select

User data - optional

Upload a file with your user data or enter it in the field.

Choose file

```
#!/bin/bash
until ping -c1 8.8.8.8 &>/dev/null; do ;; done
sudo yum update -y
sudo yum install -y httpd
sudo systemctl start httpd
sudo systemctl enable httpd
sudo chmod 777 -R /var/www/html
echo "<h1> Hello world from $(hostname -f) </h1>" > /var/www/html/index.html
```

☐ User data has already been base64 encoded

Summary

Number of instances

1

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Amazon Linux 2023 AMI 2023.2.2...read more  
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Cancel

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6. Now you have successfully launched instance with user data

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Services

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EC2

Instances

Launch an instance

Success

Successfully initiated launch of instance (i-03b1f3d455cb3954a)

Launch log

Next Steps

What would you like to do next with this instance, for example "create alarm" or "create backup"

1

2

3

4

5

6

Create billing and free tier usage alerts

To manage costs and avoid surprise bills, set up email notifications for billing and free tier usage thresholds.

Create billing alerts

Connect to your instance

Once your instance is running, log into it from your local computer.

Connect to instance

Learn more

Connect an RDS database

Configure the connection between an EC2 instance and a database to allow traffic flow between them.

Connect an RDS database

Create a new RDS database

Learn more

Create EBS snapshot policy

Create a policy that automates the creation, retention, and deletion of EBS snapshots

Create EBS snapshot policy

Manage detailed monitoring

Create Load Balancer

Create AWS budget

Manage CloudWatch alarms

CloudShell

Feedback

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7. Now go the EC2 dashboard copy the public IP of luanched instance and paste it in the web browser.

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Services

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Instances (1/3)

Find instance by attribute or tag (case-sensitive)

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
<input type="checkbox"/>	My-Instance	i-00dd87e544f6f075a	Terminated	t3.micro	–	No alarms	eu-north-1a	–
<input type="checkbox"/>	Linux-instance	i-0cb4b1c2771a0bcd9	Terminated	t3.micro	–	No alarms	eu-north-1a	–
<input checked="" type="checkbox"/>	WebInstance	i-03b1f3d455cb3954a	Running	t3.micro	Initializing	No alarms	eu-north-1a	ec2-51-20-123-2

Instance: i-03b1f3d455cb3954a (WebInstance)

Details

Security

Networking

Storage

Status checks

Monitoring

Tags

Instance summary

Instance ID

i-03b1f3d455cb3954a (WebInstance)

IPv6 address

–

Hostname type

IP name: ip-172-31-24-210.eu-north-1.compute.internal

Public IPv4 address copied

51.20.123.234

Instance state

Running

Private IP DNS name (IPv4 only)

ip-172-31-24-210.eu-north-1.compute.internal

Private IPv4 addresses

172.31.24.210

Public IPv4 DNS

ec2-51-20-123-234.eu-north-1.compute.amazonaws.com

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8. Now we have succesfully hosted web application.



**Hello world from ip-172-31-24-210.eu-north-1.compute.internal**