

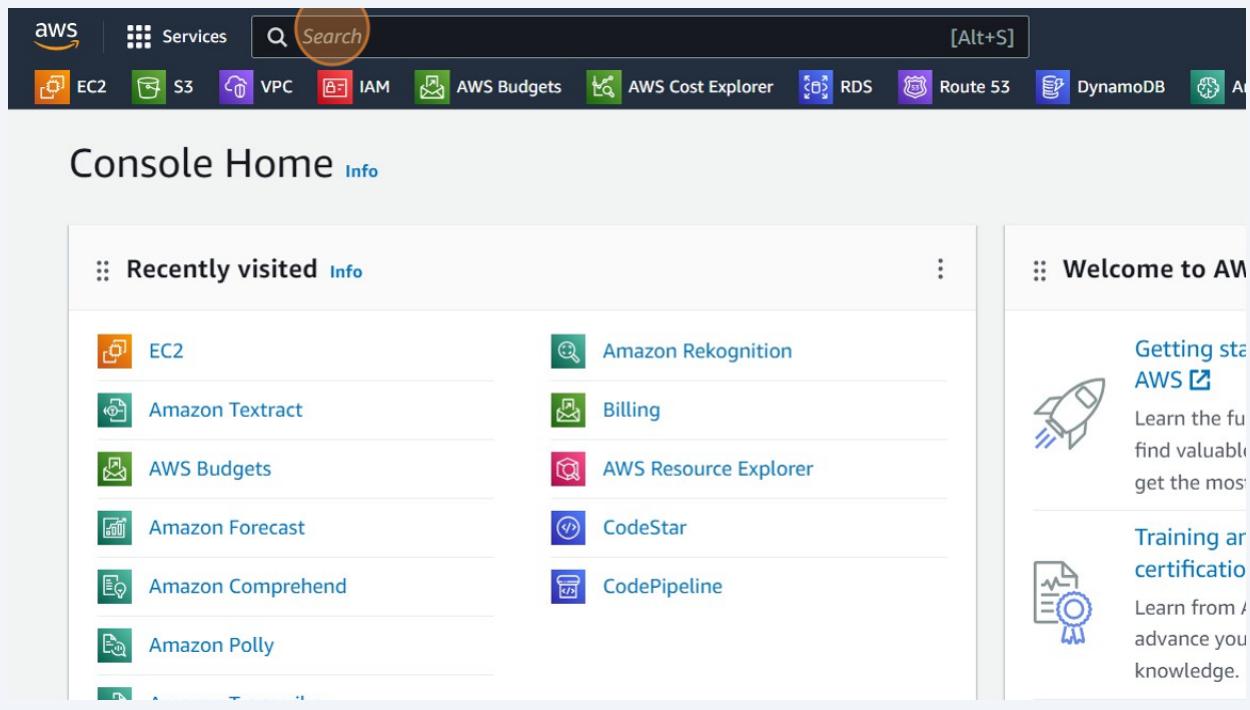
Create EC2 Instance

This guide provides step-by-step instructions on how to create an EC2 instance on AWS. Following this guide will help someone quickly and easily set up a virtual server, choose the appropriate configuration, and access the instance. It also includes information on creating key pairs, security groups, and checking the instance's status.

This guide was created by Nijat Hajiyev

- 1 Navigate to aws.amazon.com

- 2 Click the "Search" field.



- 3 Click the "Search" field.

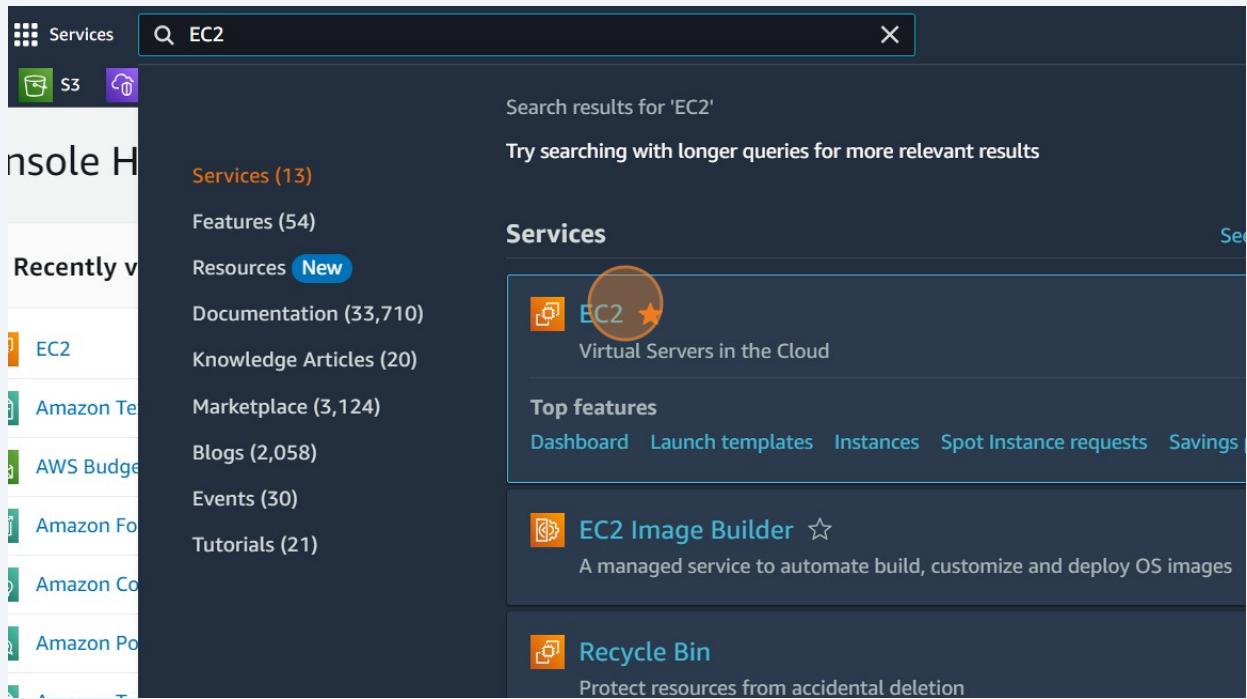
The screenshot shows the AWS Console Home page. At the top, there is a navigation bar with the AWS logo, a 'Services' button, and a search bar containing the word 'Search'. Below the search bar, several service icons are visible: EC2, S3, VPC, IAM, AWS Budgets, AWS Cost Explorer, RDS, Route 53, DynamoDB, and others. The main content area is titled 'Console Home' with an 'Info' link. It features two sections: 'Recently visited' (listing EC2, Amazon Textract, AWS Budgets, Amazon Forecast, Amazon Comprehend, and Amazon Polly) and 'Welcome to AWS' (with sections for 'Getting started with AWS', 'Training and certification', and 'AWS re:Invent').

- 4 Click the "Search" field.

This screenshot is identical to the one above it, showing the AWS Console Home page with the search bar highlighted. The layout includes the navigation bar, service icons, 'Console Home' title, 'Recently visited' section, and 'Welcome to AWS' section.

5 Type "EC2"

6 Click "EC2"



7 Click "EC2"

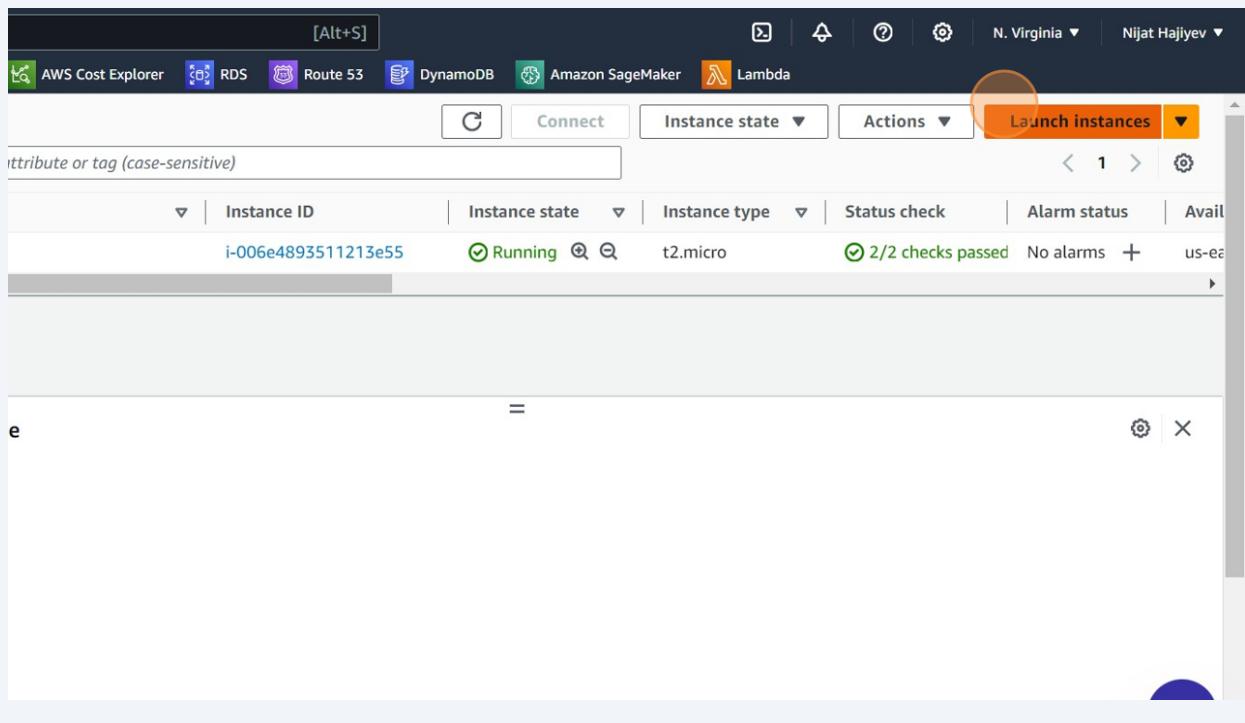
The screenshot shows the AWS Management Console search results for 'EC2'. The search bar at the top contains 'EC2'. Below it, a message says 'Search results for 'EC2'' and 'Try searching with longer queries for more relevant results'. On the left, there's a sidebar with 'Recently viewed' services: EC2, Amazon Timestream, AWS Budgets, Amazon Forecast, Amazon CloudWatch Metrics, Amazon Polly, and AWS Lambda. The main area is titled 'Services' and lists 'Services (13)', 'Features (54)', and 'Resources New'. Under 'Services', the 'EC2' service card is highlighted with a yellow circle, showing its icon, name, and description: 'Virtual Servers in the Cloud'. Other cards include 'EC2 Image Builder' and 'Recycle Bin'. A 'Top features' section lists 'Dashboard', 'Launch templates', 'Instances', 'Spot Instance requests', and 'Savings Plans'.

8 Click "Instances"

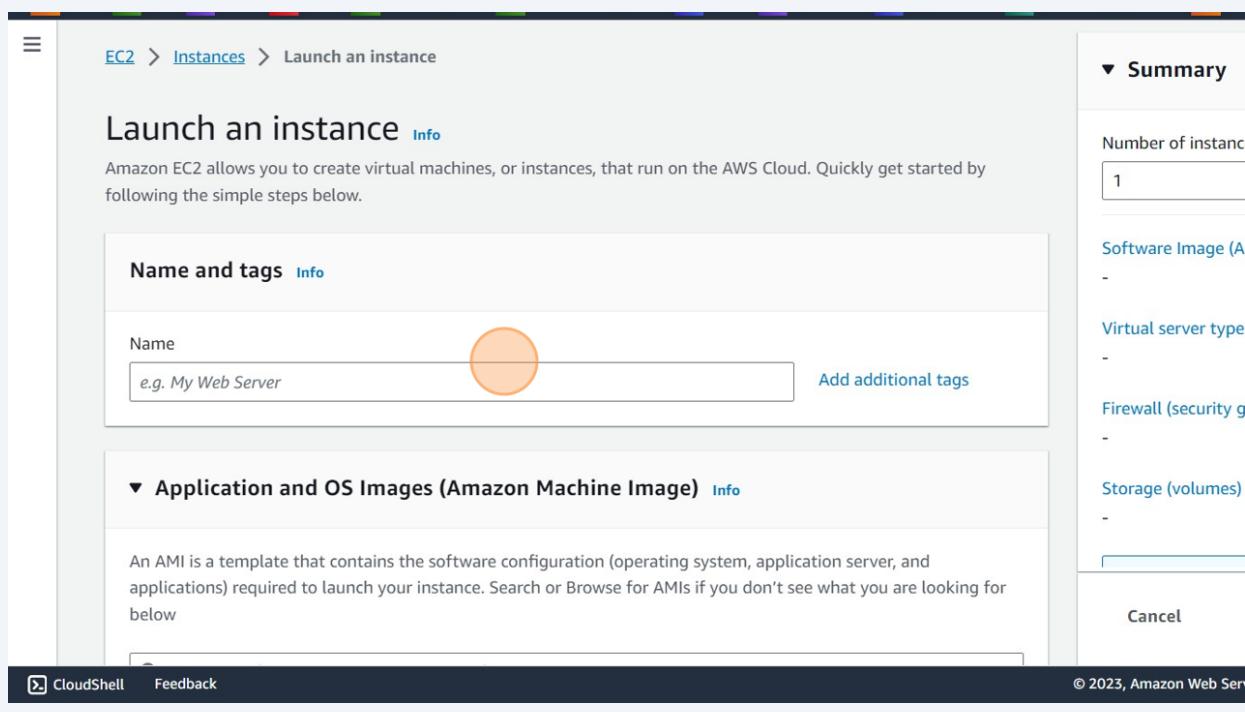
The screenshot shows the AWS EC2 Dashboard. The navigation bar at the top includes links for AWS, Services, and a search bar. Below the navigation bar, there are icons for various services: EC2, S3, VPC, IAM, AWS Budgets, AWS Cost Explorer, RDS, Route 53, DynamoDB, and another unlabeled icon. The main content area has a sidebar titled 'EC2 Dashboard' with options: EC2 Global View, Events, and a expanded 'Instances' section. The 'Instances' section is highlighted with a yellow circle, showing sub-options: Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, and Capacity Reservations. To the right of the sidebar is a 'Resources' section titled 'You are using the following Amazon EC2 resources in the US East (N. Virginia) Region:'. It displays a grid of resource counts:

Resource Type	Count	Action
Instances (running)	1	Auto Scaling Groups
Dedicated Hosts	0	Elastic IPs
Instances	1	Key pairs
Load balancers	0	Placement groups
Security groups	11	Snapshots
Volumes	1	

9 Click "Launch instances"

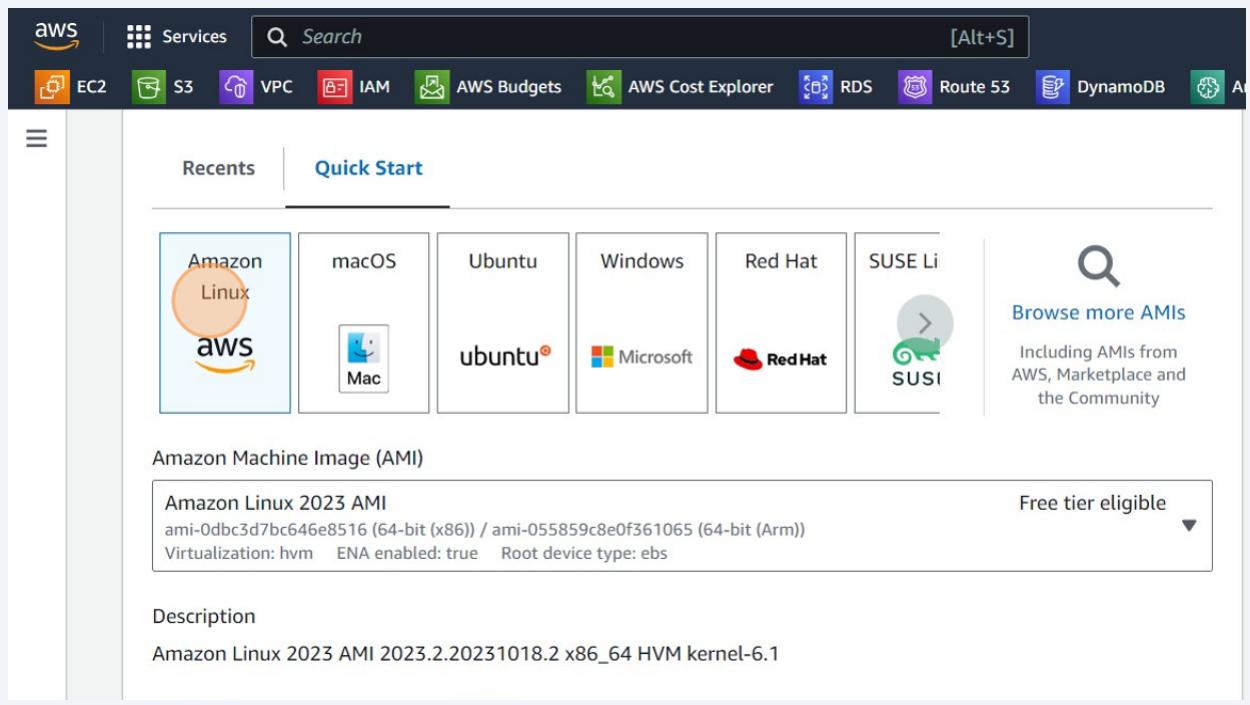


10 Click the "Name" field.



11 Type "DemoInstance2"

12 Click "Amazon Linux"



13 Select AMI

The screenshot shows the AWS EC2 console with the search bar set to "Search". The top navigation bar includes services like S3, VPC, IAM, AWS Budgets, AWS Cost Explorer, RDS, Route 53, DynamoDB, and others. The main content area displays the "Amazon Machine Image (AMI)" section. A specific AMI entry, "Amazon Linux 2023 AMI", is highlighted with a red circle. This entry includes details: "ami-0dbc3d7bc646e8516 (64-bit (x86)) / ami-055859c8e0f361065 (64-bit (Arm))", "Virtualization: hvm", "ENAv enabled: true", and "Root device type: ebs". To the right of these details is a "Free tier eligible" badge with a dropdown arrow. Below this, there's a "Description" section stating "Amazon Linux 2023 AMI 2023.2.20231018.2 x86_64 HVM kernel-6.1". Further down, there are sections for "Architecture" (set to "64-bit (x86)"), "AMI ID" ("ami-0dbc3d7bc646e8516"), and a "Verified provider" badge. At the bottom of the main content area, there's a section titled "Instance type" with a "Info" link.

14 Select AMI

The screenshot shows the AWS EC2 console with the search bar set to "Search". The main content area displays a list of "Amazon Machine Image (AMI)" entries. The first entry, "Amazon Linux 2023 AMI", is highlighted with a red circle. It includes details: "ami-0dbc3d7bc646e8516 (64-bit (x86)) / ami-055859c8e0f361065 (64-bit (Arm))", "Virtualization: hvm", "ENAv enabled: true", and "Root device type: ebs". To the right of these details is a "Free tier eligible" badge with a checkmark. Below this, there are several other AMI entries: "Amazon Linux 2 AMI (HVM) - Kernel 5.10, SSD Volume Type", "Deep Learning AMI GPU PyTorch 2.0.1 (Amazon Linux 2) 20231003", "Deep Learning AMI GPU TensorFlow 2.13 (Amazon Linux 2) 20231002", "Deep Learning AMI GPU PyTorch 1.13.1 (Amazon Linux 2) 20230818", and "Amazon Linux 2 LTS with SQL Server 2019 Standard". Each entry provides its AMI ID, architecture, virtualization type, ENA support, and root device type.

15

Amazon Machine Image (AMI)

Amazon Linux 2 AMI (HVM) - Kernel 5.10, SSD Volume Type ami-01eccbf80522b562b (64-bit (x86)) / ami-0b4c67d70a6907b93 (64-bit (Arm)) Virtualization: hvm ENA enabled: true Root device type: ebs	Free tier eligible
---	--------------------

Description
Amazon Linux 2 Kernel 5.10 AMI 2.0.20231020.1 x86_64 HVM gp2

Architecture AMI ID
 ami-01eccbf80522b562b Verified provider

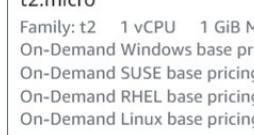
▼ Instance type [Info](#)

Instance type
 t2.micro Free tier eligible
Family: t2 1 vCPU 1 GiB Memory Current generation: true
On-Demand Windows base pricing: 0.0162 USD per Hour
On-Demand SUSE base pricing: 0.0116 USD per Hour

16

Select "t2.micro"

▼ Instance type [Info](#)

Instance type
 t2.micro Free tier eligible
Family: t2 1 vCPU 1 GiB Memory Current generation: true
On-Demand Windows base pricing: 0.0162 USD per Hour
On-Demand SUSE base pricing: 0.0116 USD per Hour
On-Demand RHEL base pricing: 0.0716 USD per Hour
On-Demand Linux base pricing: 0.0116 USD per Hour

[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.

17

The screenshot shows the 'Instance type' selection interface. At the top, there's a search bar with a magnifying glass icon. Below it, a list of instance types is shown:

- t2.micro** (Free tier eligible)
Family: t2 1 vCPU 1 GiB Memory Current generation: true
On-Demand Windows base pricing: 0.0162 USD per Hour
On-Demand SUSE base pricing: 0.0116 USD per Hour
On-Demand RHEL base pricing: 0.0716 USD per Hour
On-Demand Linux base pricing: 0.0116 USD per Hour
- t2.nano**
Family: t2 1 vCPU 0.5 GiB Memory Current generation: true
On-Demand Linux base pricing: 0.0058 USD per Hour
On-Demand SUSE base pricing: 0.0058 USD per Hour
On-Demand Windows base pricing: 0.0081 USD per Hour
- t2.micro** (Free tier eligible)
Family: t2 1 vCPU 1 GiB Memory Current generation: true

To the right of the list, there are buttons for 'All generations' and 'Compare instance types'. A note at the bottom says: 'Access to the selected key pair before you launch the instance.'

At the bottom of the screen, there are links for 'CloudShell' and 'Feedback'.

18 Click "Create new key pair"

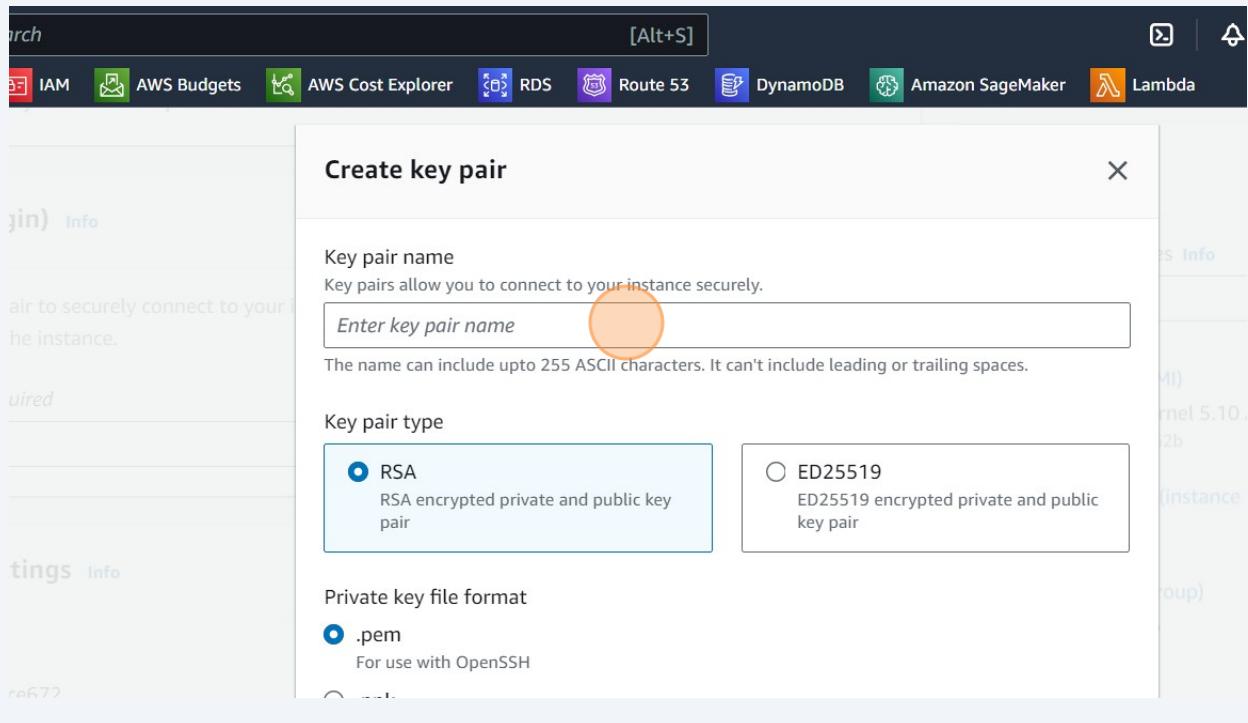
The screenshot shows the 'Create new key pair' step in the instance creation process. The 'Key pair name - required' dropdown is highlighted with an orange circle. The 'Create new key pair' button next to it is also highlighted with an orange circle.

Below this, the 'Network settings' section is visible, showing network and subnet information. To the right, the 'Summary' section displays the following details:

- Number of instances: 1
- Software Image (AMI): Amazon Linux 2 Kernel 5.10 AMI...read more
ami-01ecccbf80522b562b
- Virtual server type (instance type): t2.micro
- Firewall (security group): New security group
- Storage (volumes): 1 volume(s) - 8 GiB

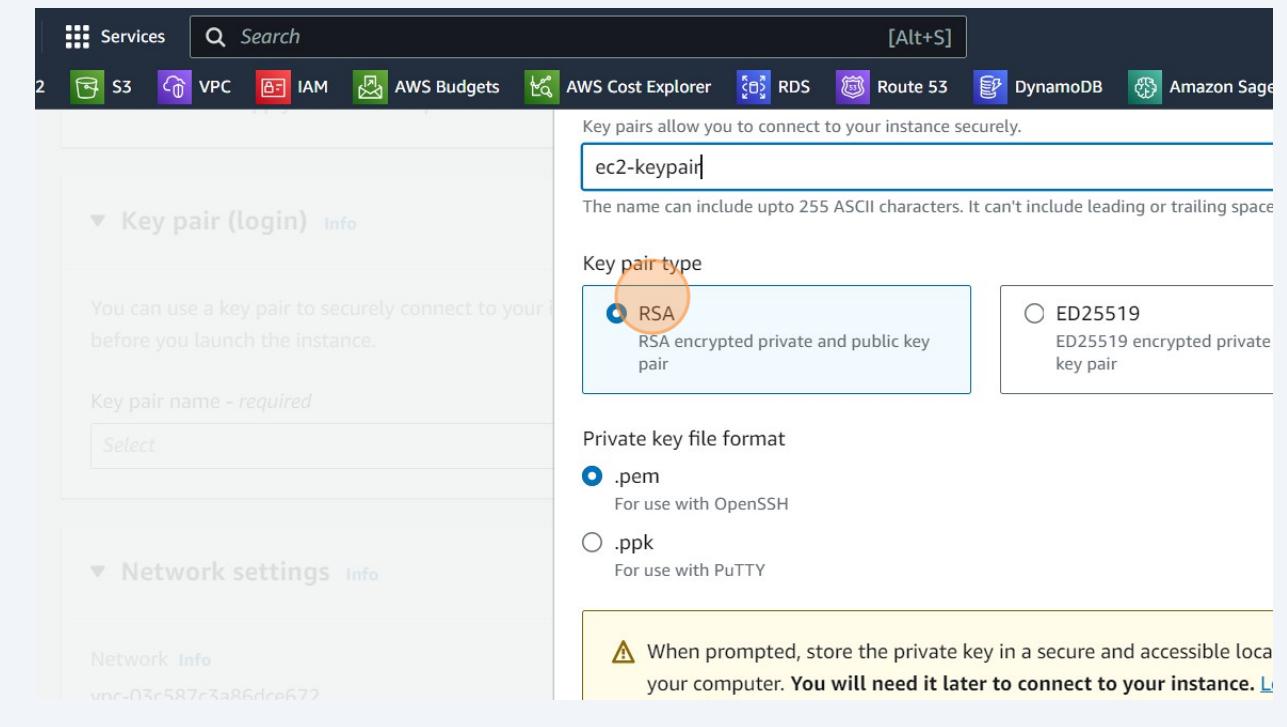
At the bottom right, there are 'Cancel', 'Launch instance' (which is highlighted with an orange box), and 'Review commands' buttons.

19 Click the "Key pair name" field.



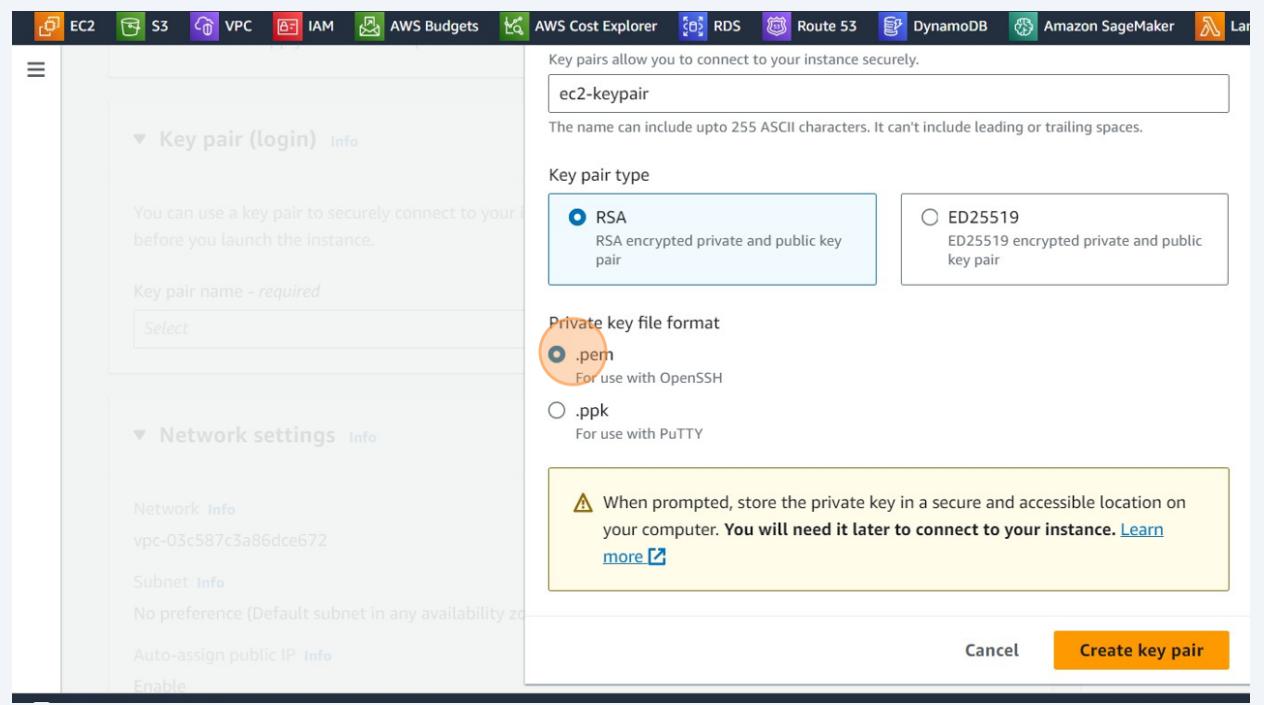
20 Type "ec2-keypair"

21 Click "RSA"

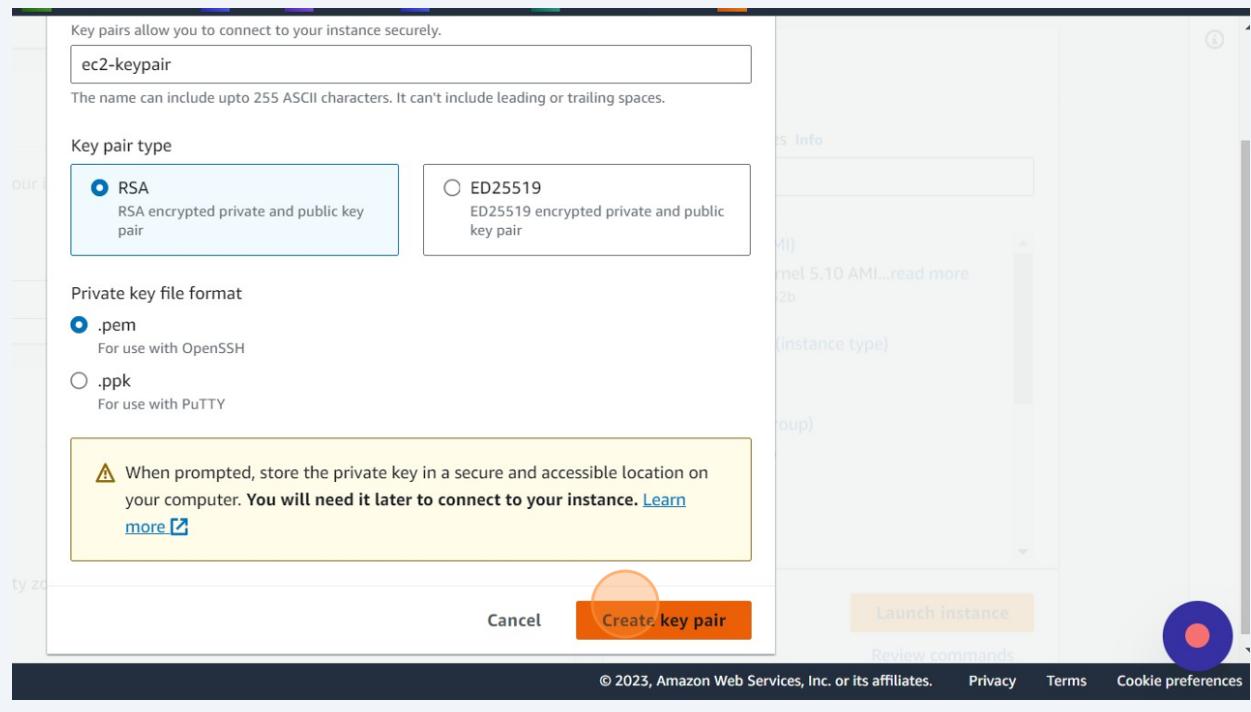


22 Click ".pem"

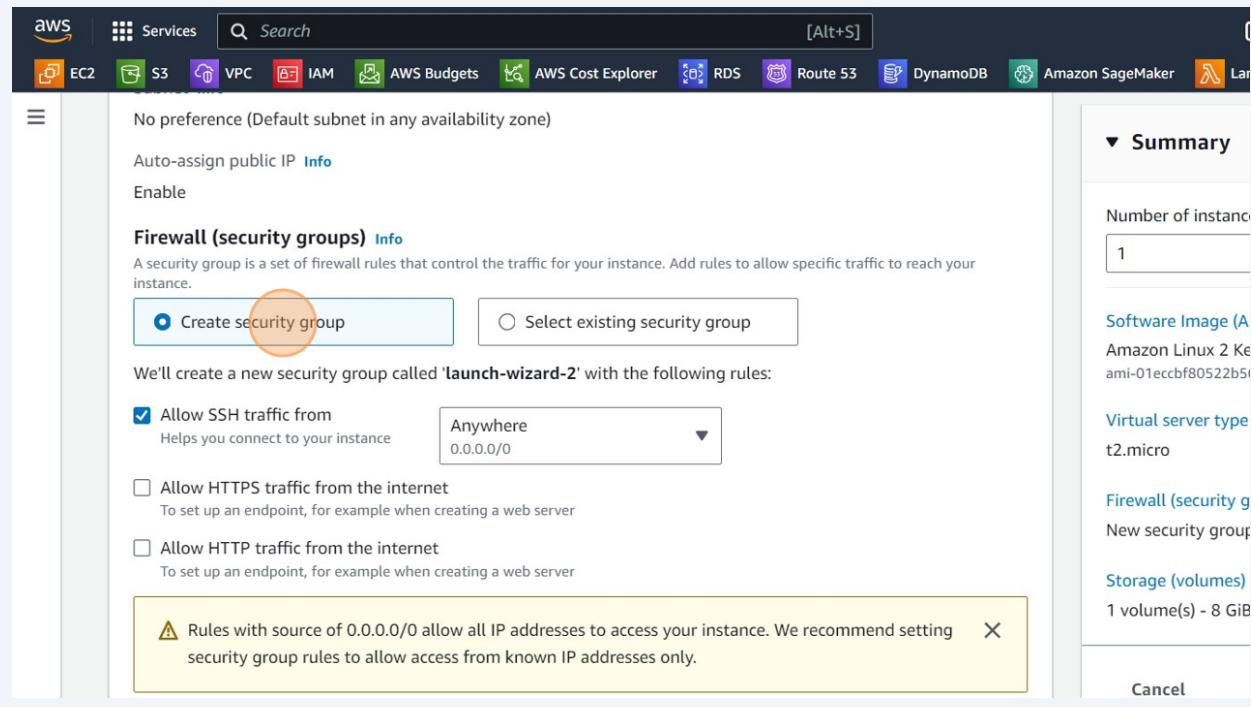
<Windows10 select .ppk



23 Click "Create key pair"



24 Click "Create security group"



25 Click this checkbox.

The screenshot shows the 'Firewall (security groups)' section of the AWS Launch Wizard. It includes a note about security groups controlling traffic to the instance. Two radio buttons are shown: 'Create security group' (selected) and 'Select existing security group'. Below this, it says 'We'll create a new security group called 'launch-wizard-2' with the following rules:' followed by three checkboxes:

- Allow SSH traffic from 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 message in a yellow box 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 access from known IP addresses only.' An orange circle highlights the 'Allow HTTP traffic from the internet' checkbox.

Summary

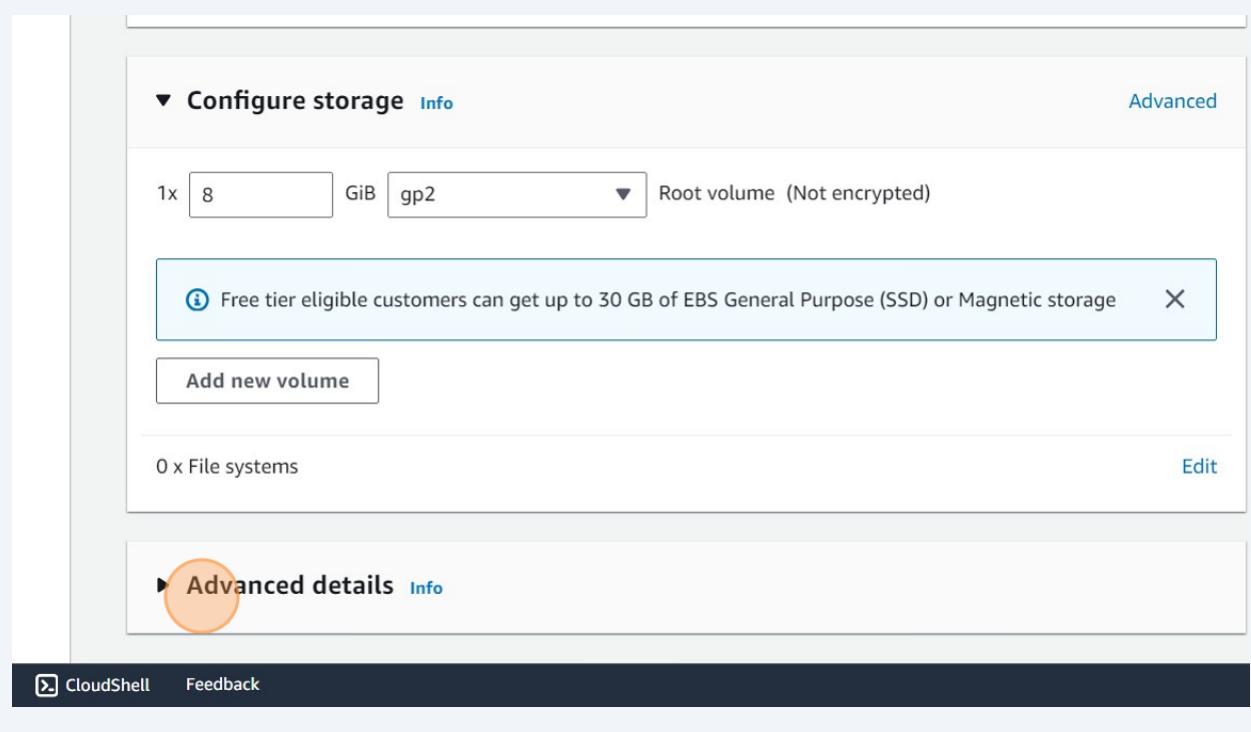
- Number of instances: 1
- Software Image (A): Amazon Linux 2 Kernel ami-01eccbf80522b51
- Virtual server type: t2.micro
- Firewall (security group): New security group
- Storage (volumes): 1 volume(s) - 8 GiB

CloudShell Feedback © 2023, Amazon Web Services

26 Select 1x8 and GiB-gp2

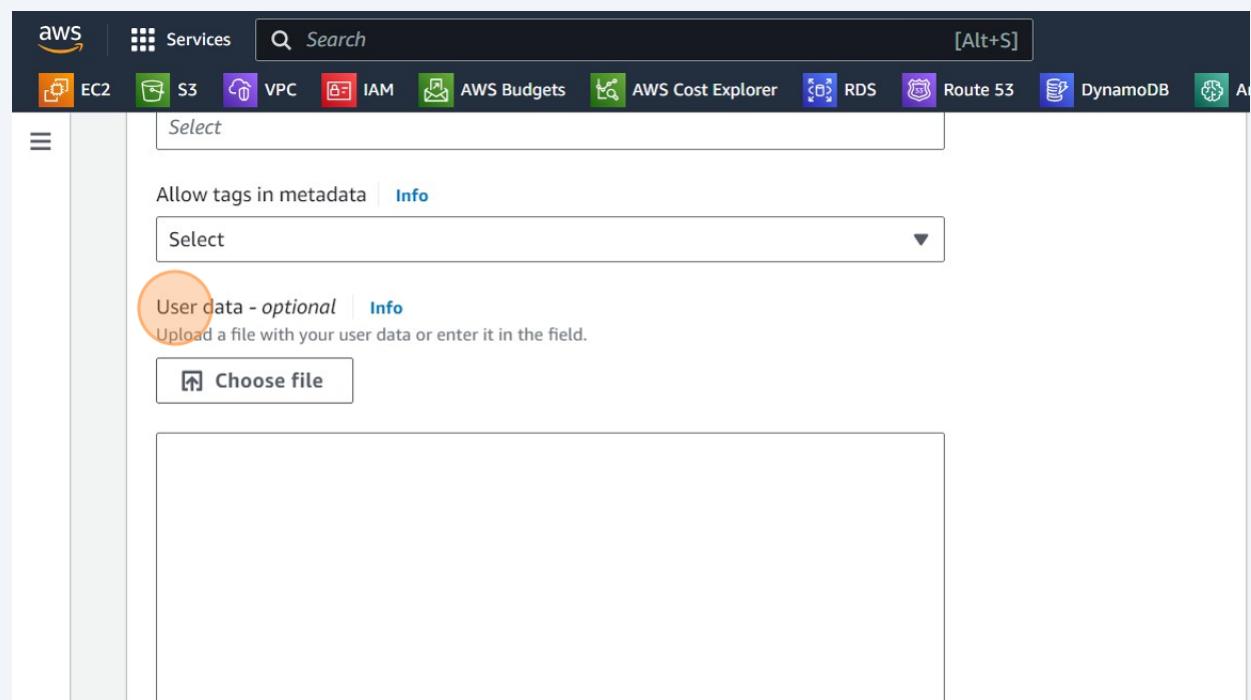
The screenshot shows the 'Configure storage' section. It displays a root volume configuration: '1x 8 GiB gp2 Root volume (Not encrypted)'. An orange circle highlights the '8 GiB' input field. A note below says: '⚠ Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.' A blue button labeled 'Add new volume' is visible. At the bottom, it shows '0 x File systems' with an 'Edit' link.

27 Click "Advanced details"

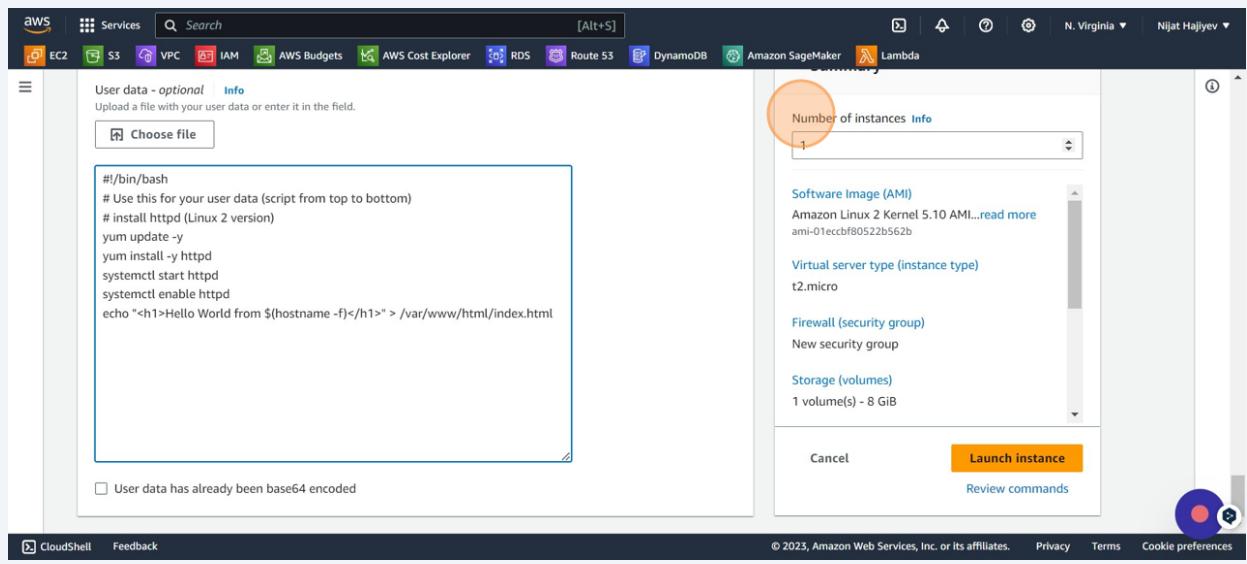


28 Click "User data - optional"

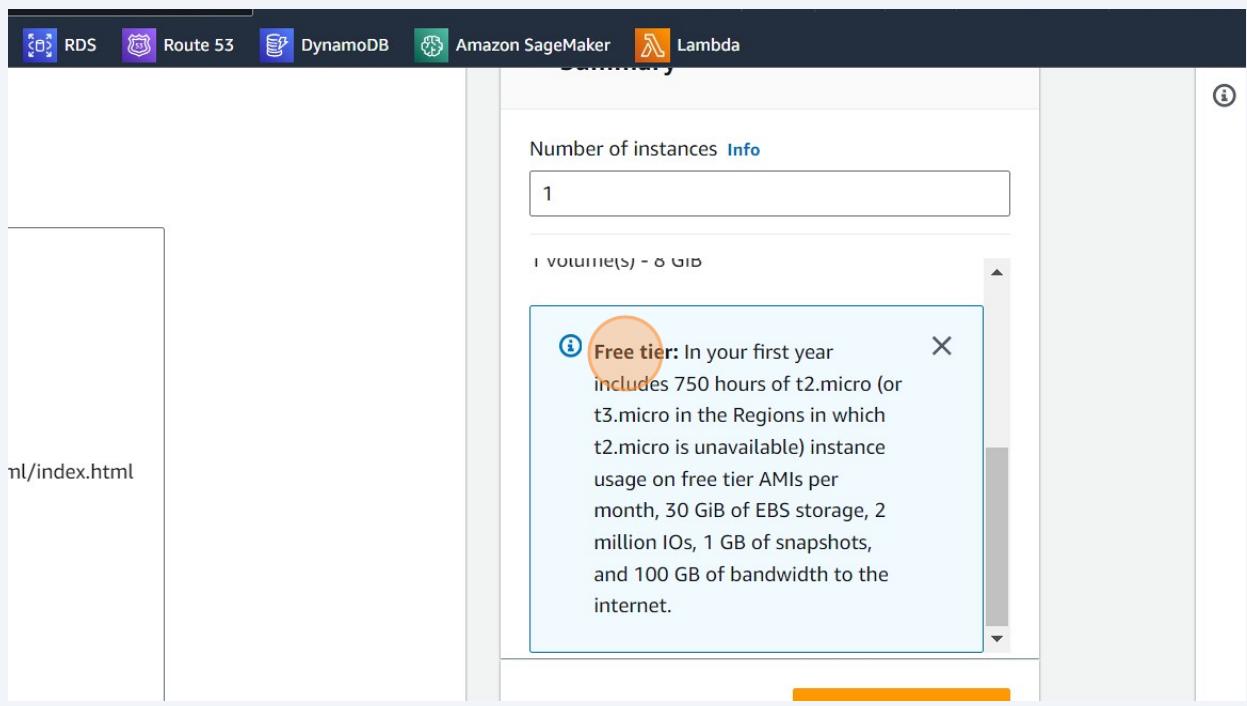
Paste user data



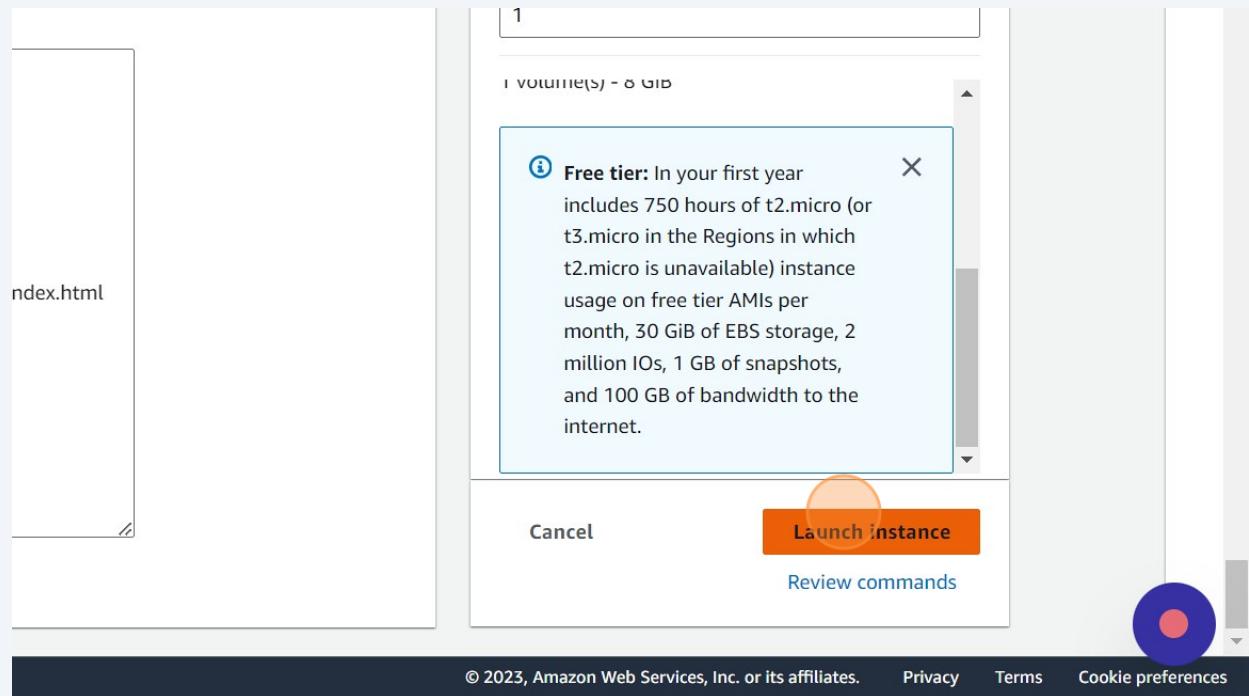
29 Check "Number of instances"



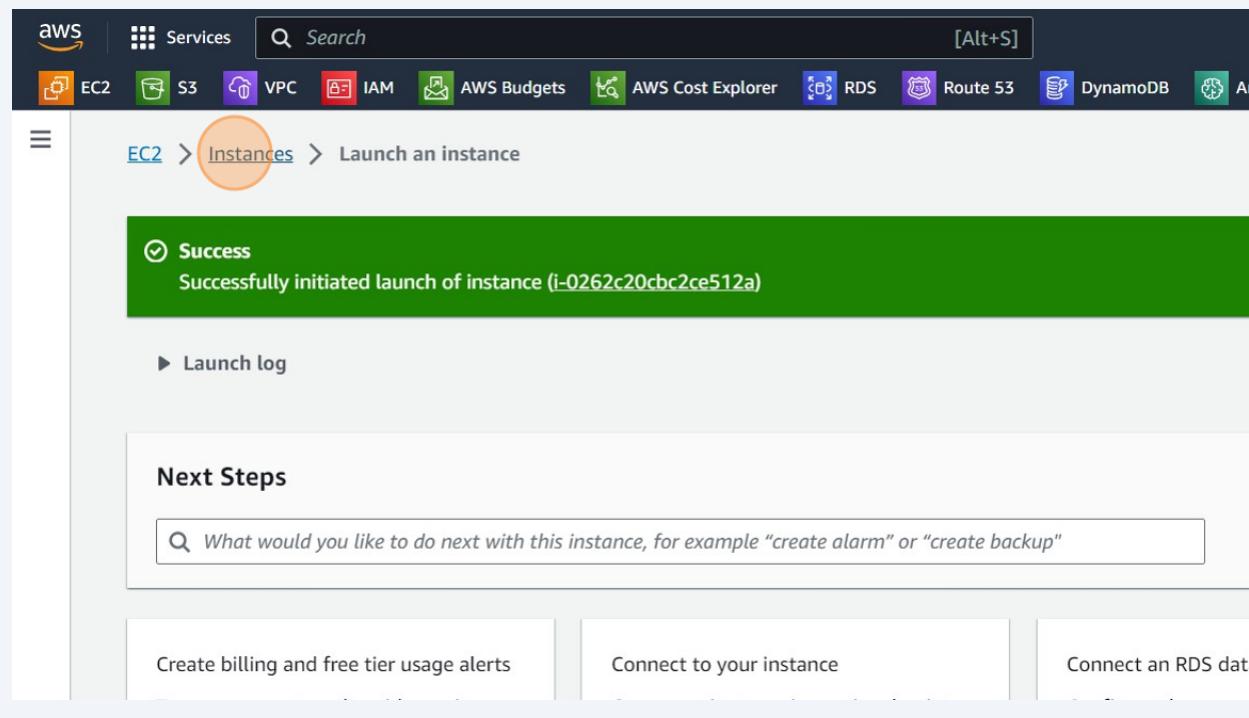
30 Check "Free tier:"



31 Click "Launch instance"



32 Click "Instances"



33 Click here to check "Instance state" - Running

The screenshot shows the AWS EC2 Instances page. At the top, there's a navigation bar with various services like VPC, IAM, AWS Budgets, AWS Cost Explorer, RDS, Route 53, DynamoDB, Amazon SageMaker, and Lambda. Below the navigation bar is a search bar and a toolbar with options like 'Connect', 'Instance state', 'Actions', and 'Launch instances'. The main area displays a table of instances. Two instances are listed: 'Demolnstance2' (Instance ID: i-0262c20cbc2ce512a) and 'Demolnstance' (Instance ID: i-006e4893511213e55). Both instances are shown as 'Running' with green status indicators. A red circle highlights the 'Instance state' dropdown menu at the top right of the table header.

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Available
Demolnstance2	i-0262c20cbc2ce512a	Running	t2.micro	-	No alarms	us-east-1
Demolnstance	i-006e4893511213e55	Running	t2.micro	2/2 checks passed	No alarms	us-east-1

34 Click this checkbox.

The screenshot shows the AWS EC2 Instances page. On the left, there's a sidebar with navigation links: EC2 Dashboard, EC2 Global View, Events, Instances (with 'Instances' selected), Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations, Images, AMIs, and AMI Catalog. The main area shows the same table of instances as the previous screenshot. The first instance, 'Demolnstance2', has its checkbox highlighted with a red circle. Both instances are still listed as 'Running'.

Name	Instance ID	Instance state	Instance type
Demolnstance2	i-0262c20cbc2ce512a	Running	t2.micro
Demolnstance	i-006e4893511213e55	Running	t2.micro

35 Check "Instance ID"

The screenshot shows the AWS EC2 Instances page. On the left, there's a navigation sidebar with links like EC2 Dashboard, EC2 Global View, Events, Instances (with sub-links for 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 area displays 'Instances (1/2) Info' with a search bar. A table lists two instances: 'DemolInstance2' (selected, Instance ID i-0262c20cbc2ce512a, Running, t2.micro) and 'DemolInstance' (Instance ID i-006e4893511213e55, Running, t2.micro). Below the table, the details for 'DemolInstance2' are shown, with the 'Instance ID' section circled in red.

36 Check "Public IPv4 address"

This screenshot is from the same EC2 Instances page as the previous one. It shows the same two instances: 'DemolInstance2' (selected, Instance ID i-0262c20cbc2ce512a, Running, t2.micro) and 'DemolInstance' (Instance ID i-006e4893511213e55, Running, t2.micro). The 'Details' tab is selected for 'DemolInstance2'. In the 'Instance summary' section, the 'Public IPv4 address' field (54.87.49.183) is circled in red.

37 Check "Private IPv4 addresses"

Instance ID | Instance state | Instance type | Status check | Alarm status | Available
i-0262c20cbc2ce512a | Running | t2.micro | Initializing | No alarms | us-east-1
i-006e4893511213e55 | Running | t2.micro | 2/2 checks passed | No alarms | us-east-1

noInstance2

Storage | Status checks | Monitoring | Tags

Public IPv4 address: 54.87.49.183 | Open address

Private IPv4 addresses: 172.31.31.25

Instance state: Running

Public IPv4 DNS: ec2-54-87-49-183.compute-1.amazonaws.com | Open address

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38 Click here.

Name: DemoInstance2

Instance ID: i-0262c20cbc2ce512a

Instance state: Running

Instance type: t2.micro

Instance ID: i-006e4893511213e55

Instance state: Running

Instance type: t2.micro

Instance: i-0262c20cbc2ce512a (DemoInstance2)

Details | Security | Networking | Storage | Status checks | Monitoring | Tags

Instance summary: i-0262c20cbc2ce512a (DemoInstance2)

Public IPv4 address: 54.87.49.183 | Open address

Private IPv4 address: 172.31.31.25

IPv6 address: -

Instance state: Running

Public IPv4 DNS: ec2-54-87-49-183.compute-1.amazonaws.com | Open address

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In a new tab, navigate to <http://54.87.49.183/>
http://+Public IPv4 address

40

Check "Hello World from ip-172-31-31-25.ec2.internal"

Hello World from ip-172-31-31-25.ec2.internal