

# Launch AWS EC2 Instance with Intel® Distribution of OpenVINO™ toolkit

*Enabling developers to optimize pre-trained models and accelerate the deployment of deep learning solutions with a write-once-deploy-anywhere approach across Intel® powered CPUs, Intel integrated GPUs, Intel discrete GPUs, Intel NPUs, and FPGAs.*

The Intel® Distribution of OpenVINO™ toolkit on Amazon Machine Image (AMI) enables developers to optimize pre-trained models and accelerate the deployment of deep learning solutions with a write-once-deploy-anywhere approach across Intel-powered CPUs, Intel integrated GPUs, Intel discrete GPUs, Intel NPUs, and FPGAs.

OpenVINO AMI comes pre-equipped with the Intel® Distribution of OpenVINO™ toolkit development and deployment components, such as the Model Optimizer and the Inference Engine. It includes Jupyter interface to run OpenVINO notebooks.

This document illustrates all the steps required to deploy AMI in your AWS account and access the Jupyter environment from your local machine. Please note that the AWS account you are using for deploying this AMI needs to have public IP assigned for Jupyter notebooks to be accessed from a local system.

## Quick Launch Instructions:

1. Search for [OpenVINO AMI in AWS Marketplace](#) and Launch the AMI using “Launch through EC2”.  
**Note:** Make sure the public IP address is enabled and is launched in a VPC with internet access.

2. Open Jupyter Notebook by navigating to port 8888,  
the URL is **http://<ec2-instance-public-ip>:8888**

3. The Jupyter Notebook password is **<ec2-instance-id>**

4. To run sample notebooks, you can navigate to **/notebooks/**.

Sample URL: **http://<ec2-instance-public-ip>:8888/lab/tree/notebooks**

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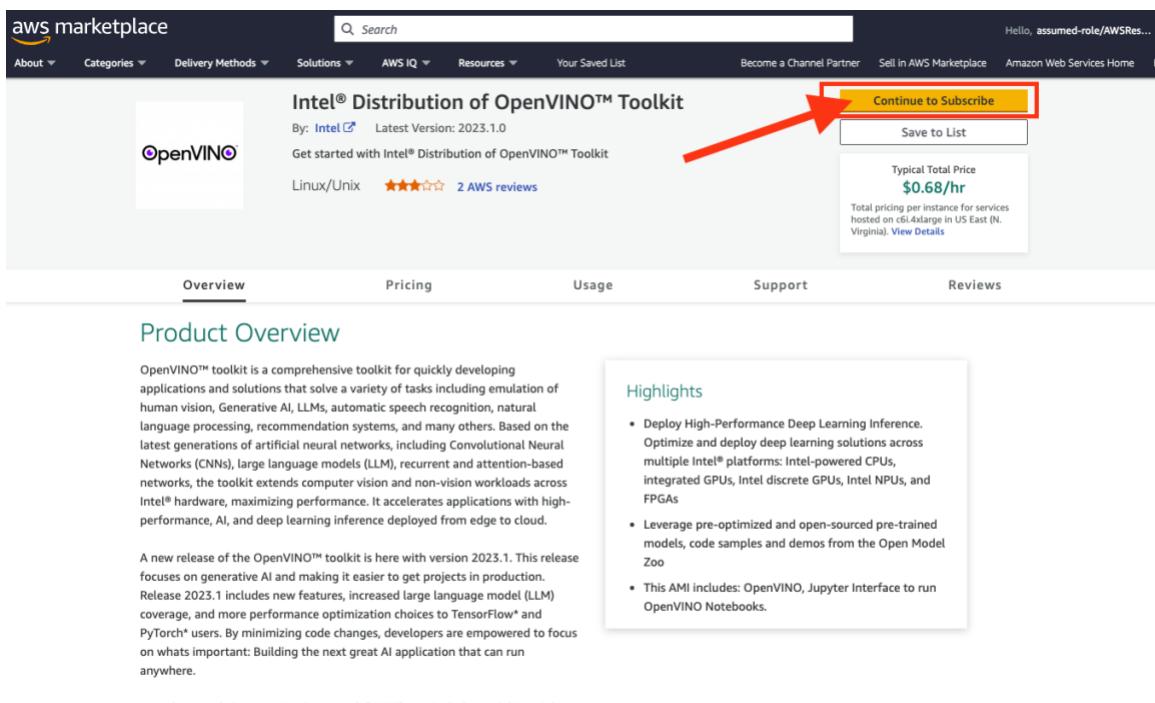
# Search for AMI and Subscribe

There are two ways to subscribe to the OpenVINO™ marketplace offering:

- **Option 1:** Navigate to the AMI webpage directly by using this link.  
<https://aws.amazon.com/marketplace/pp/prodview-sa76mydxmlmwk>
- **Option 2:** Navigate to the AWS marketplace by using the link <https://aws.amazon.com/marketplace> and then search for “Intel® Distribution of OpenVINO™ Toolkit”. Select the “Intel® Distribution of OpenVINO™ Toolkit” AMI.

After selecting the AMI in the AWS marketplace:

## 1. Click on “Continue to Subscribe”



The screenshot shows the AWS Marketplace product page for the "Intel® Distribution of OpenVINO™ Toolkit". The product image is for "OpenVINO™". The title is "Intel® Distribution of OpenVINO™ Toolkit" and it is listed as "By: Intel". The latest version is 2023.1.0. Below the title, there is a brief description: "Get started with Intel® Distribution of OpenVINO™ Toolkit" and "Linux/Unix". There are 2 AWS reviews with a rating of ★★★★☆. To the right of the product image, there is a yellow button labeled "Continue to Subscribe" with a red arrow pointing to it. Below the "Continue to Subscribe" button is a "Save to List" button. Further down, there is a box containing the "Typical Total Price" of "\$0.68/hr". At the bottom of the page, there are tabs for "Overview", "Pricing", "Usage", "Support", and "Reviews". On the left side, under "Product Overview", there is a detailed description of the toolkit's capabilities and a new release note. On the right side, there is a "Highlights" section with a bulleted list of features.

## 2. Click on “Continue to Configuration”

The screenshot shows the AWS Marketplace interface. At the top, there's a navigation bar with links like 'Categories', 'Delivery Methods', 'Solutions', 'Migration Mapping Assistant', 'Your Saved List', 'Partners', 'Sell in AWS Marketplace', 'Amazon Web Services Home', and 'Help'. Below the navigation bar, the product title 'Intel® Distribution of OpenVINO™ Toolkit' is displayed. To the right of the title is a yellow 'Continue to Configuration' button, which is highlighted with a red rectangular box and a red arrow pointing to it. Below the title, there's a section titled 'Subscribe to this software' with a note about being subscribed and terms and pricing details. Further down, there are sections for 'Terms and Conditions' and 'Intel Offer', followed by a table showing product details.

Product	Effective date	Expiration date	Action
Intel® Distribution of OpenVINO™ Toolkit	10/22/2020	N/A	<a href="#">Show Details</a>

## 3. Click on “Continue to Launch”

The screenshot shows the configuration page for the Intel® Distribution of OpenVINO™ Toolkit. At the top, there's a navigation bar with links like 'About', 'Categories', 'Delivery Methods', 'Solutions', 'AWS IQ', 'Resources', 'Your Saved List', 'Become a Channel Partner', 'Sell in AWS Marketplace', 'Amazon Web Services Home', and 'Help'. Below the navigation bar, the product title 'Intel® Distribution of OpenVINO™ Toolkit' is displayed. To the right of the title is a yellow 'Continue to Launch' button, which is highlighted with a red rectangular box and a red arrow pointing to it. Below the title, there's a section titled 'Configure this software' with a note to choose a fulfillment option and software version. On the left, there are dropdown menus for 'Fulfillment option' (set to '64-bit (x86) Amazon Machine Image (AMI)'), 'Software version' (set to '2023.1.0 (Oct 07, 2023)'), and 'Region' (set to 'US East (N. Virginia)'). On the right, there's a 'Pricing information' sidebar with sections for 'Software Pricing' and 'Infrastructure Pricing'. The 'Software Pricing' section lists the product as 'Intel® Distribution of OpenVINO™ Toolkit' running on 'c6i.4xlarge' at '\$0/hr'. The 'Infrastructure Pricing' section lists 'EC2: 1 \* c6i.4xlarge' and 'Monthly Estimate: \$490.00/month'.

4. You have two options to launch the AMI under “Choose Action”,

a. [Launch Through EC2](#) (Recommended)

b. [Launch from Website](#)

The screenshot shows the AWS Marketplace interface for the Intel® Distribution of OpenVINO™ Toolkit. At the top, there's a navigation bar with links for Categories, Delivery Methods, Solutions, Migration Mapping Assistant, Your Saved List, Partners, Sell in AWS Marketplace, Amazon Web Services Home, and Help. A search bar is also present. The main content area displays the product details for the Intel® Distribution of OpenVINO™ Toolkit, including its configuration details (Fulfillment Option: 64-bit (x86) Amazon Machine Image (AMI), Software Version: 2021.1, Region: US East (N. Virginia)), usage instructions, and a 'Choose Action' dropdown. The 'Choose Action' dropdown is highlighted with a red box and an arrow pointing to it, indicating the second option for launching the AMI. Below the dropdown, a note says 'Choose this action to launch from this website'. At the bottom, there's an EC2 Instance Type selector set to 'c5n.2xlarge'.

## 5. AMI Launch Option 1: “Launch through EC2”:

The screenshot shows the AWS Marketplace interface for the Intel® Distribution of OpenVINO™ Toolkit. At the top, there's a navigation bar with links like 'About', 'Categories', 'Delivery Methods', 'Solutions', 'AWS IQ', 'Resources', and 'Your Saved List'. Below the navigation, the product title 'Intel® Distribution of OpenVINO™ Toolkit' is displayed. Underneath the title, there are buttons for 'Product Detail', 'Subscribe', 'Configure', and 'Launch'. The 'Launch' button is highlighted with a red box. Below these buttons, the text 'Launch this software' is followed by a note: 'Review the launch configuration details and follow the instructions to launch this software.' A section titled 'Configuration details' lists fulfillment options (64-bit x86 AMI running on c7i.4xlarge), software version (2023.1.0), and region (US East (N. Virginia)). A 'Usage instructions' button is also present. In the 'Choose Action' section, a dropdown menu is set to 'Launch through EC2', which is also highlighted with a red box. To the right of the dropdown, a note says: 'Choose this action to launch your configuration through the Amazon EC2 console.' A large yellow 'Launch' button is shown with a red arrow pointing towards it.

After selecting “Launch through EC2”, click Launch. Once “Launch” is clicked, you will be taken to Launch an Instance page as shown below, where there are few sections you need to update.

The screenshot shows the AWS EC2 Instances 'Launch an instance' wizard. The top navigation bar includes 'Services', 'Search', and 'EC2 Image Builder'. The main page title is 'Launch an instance'. It has a 'Name and tags' section where 'My Web Server' is entered. Below it is an 'Application and OS Images (Amazon Machine Image)' section with a search bar and tabs for 'AMI from catalog', 'Recents', 'My AMIs', and 'Quick Start'. The summary section on the right shows 'Number of instances' set to 1, 'Software Image (AMI)' as 'OpenVINO-2023.1.0-9257b20c-875...', 'Virtual server type' as 'c7i.4xlarge', and 'Storage (volumes)' as '1 volume(s) - 50 GiB'. A callout box highlights the 'Free tier' information: '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 month, 30 GiB of EBS storage, 2 million IOPS, 1 GB of'. At the bottom right, there are 'Cancel', 'Launch instance' (which is highlighted with a red box), and 'Review commands' buttons.

## 5.1 Following are the sections after selecting “Launch through EC2:

### 1. Name and tags:

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

e.g. My Web Server

Add additional tags

1. Application and OS Images (Amazon Machine Image): OpenVINO AMI is preselected. So, no changes needed.

#### ▼ 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

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

[AMI from catalog](#)

[Recents](#)

[My AMIs](#)

[Quick Start](#)

##### Amazon Machine Image (AMI)

OpenVINO-2023.1.0-9257b20c-875a-4725-

[Verified provider](#)

b74c-1113802668a3

ami-02a6fa4aec292105d



[Browse more AMIs](#)

Including AMIs from  
AWS, Marketplace and  
the Community

Catalog	Published	Architecture	Virtualization	Root device type	ENI Enabled
AWS	2023-10-	x86_64	hvm	ebs	Yes
Marketplace	07T20:10:04.00				
AMIs	OZ				

If you have an existing license entitlement to use this software, then you can launch this software without creating a new subscription. If you do not have an existing entitlement, then by launching this software, you will be subscribed to this software and agree that your use of this software is subject to the pricing terms and the seller's [End User License Agreement](#)

2. **Instance type:** You can choose any Intel based instance based on your requirement. By default, c7i.4xlarge is selected.

**Instance type** [Info](#)

Instance type

c7i.4xlarge

Family: c7i 16 vCPU 32 GiB Memory Current generation: true

All generations

[Compare instance types](#)

The AMI vendor recommends using a c7i.4xlarge instance (or larger) for the best experience with this product.

3. **Key pair (login):** Select existing Key pair or create a new one.

**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](#)

**Create key pair** [X](#)

Key pair name

Key pairs allow you to connect to your instance securely.

Enter key pair name

The name can include up to 255 ASCII characters. It can't include leading or trailing spaces.

Key pair type

RSA RSA encrypted private and public key pair

ED25519 ED25519 encrypted private and public key pair

Private key file format

.pem For use with OpenSSH

.ppk For use with PuTTY

**⚠️ When prompted, store the private key in a secure and accessible location on your computer. You will need it later to connect to your instance. [Learn more ↗](#)**

[Cancel](#) [Create key pair](#)

4. **Network settings:** A security group is created automatically. No changes needed. You can update if needed. By Default “Anywhere” is selected to access the ec2-instance. It is recommended to select “My IP” from dropdown for additional security.
- Make sure your VPC and subnet has internet access.
  - Please refer to “[Create VPC with internet access](#)” in Appendix section for detailed instructions.

**Network settings** Info

Network Info  
vpc-0[REDACTED]5

Subnet Info  
subnet-0[REDACTED]ec

Auto-assign public IP Info  
**Enable**

**Firewall (security groups)** Info

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

We'll create a new security group called **'Intel- Distribution of OpenVINO- Toolkit-2023.1.0-AutogenByAWSMP-1'** with the following rules:

- Allow SSH traffic from Anywhere  
0.0.0.0/0
- Allow CUSTOMTCP 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

**⚠** 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. **X**

After selecting My IP, it looks like below:

▼ Network settings [Info](#)

Network [Info](#)  
vpc-0 [REDACTED] 55

Subnet [Info](#)  
subnet-0 [REDACTED] c

**Auto-assign public IP [Info](#)**

Enable

**Firewall (security groups) [Info](#)**

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

We'll create a new security group called 'Intel- Distribution of OpenVINO- Toolkit-2023.1.0-AutogenByAWSMP- -1' with the following rules:

Allow SSH traffic from  
Helps you connect to your instance

Allow CUSTOMTCP traffic from  
Helps you connect to your instance

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

5. **Configure storage:** Update the storage size based on your requirement. We would recommend selecting atleast 30 GB minimum to start with.

▼ Configure storage [Info](#)

Advanced

1x  GiB  Root volume (Not encrypted)

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

**Add new volume**

0 x File systems [Edit](#)

6. After selecting all the required information, click Launch as shown below:

**Firewall (security groups) Info**

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

We'll create a new security group called 'Intel- Distribution of OpenVINO- Toolkit-2023.1.0-AutogenByAWSMP-1' with the following rules:

- Allow SSH traffic from My IP 73.96.5.126/32
- Allow CUSTOMTCP traffic from My IP 73.96.5.126/32
- 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

**Configure storage** Info

Advanced

1x 50 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

**Summary**

Number of instances Info  
1

Software image (AMI)  
OpenVINO-2023.1.0-9257b20c-875...read more  
ami-02a6fa4aec2c92105d

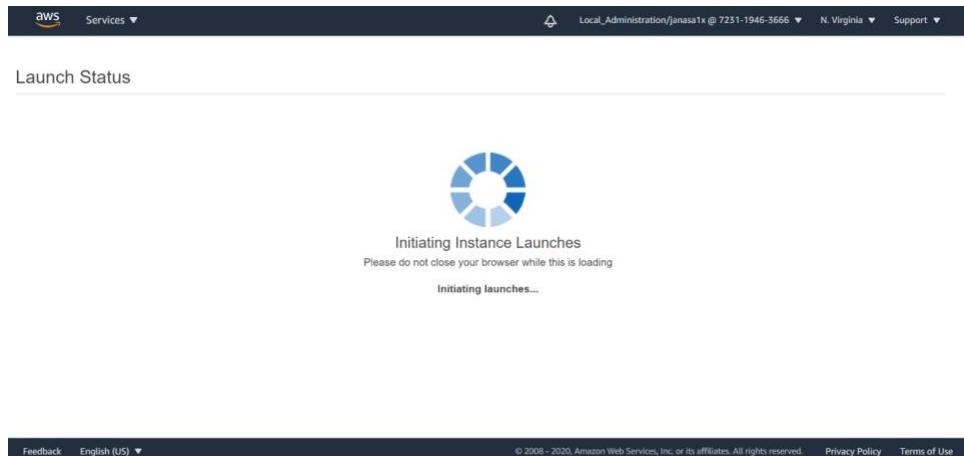
Virtual server type (instance type)  
c7i.4xlarge

Firewall (security group)  
New security group

Storage (volumes)  
1 volume(s) - 50 GiB

**Launch instance** Review commands

Please note that it might take some time for the instance to be created.



7. Click on the “instance id” to see your instance status.

Also, copy this instance-id, as this will be your password to your Jupyter Notebook.

The screenshot shows the AWS Launch Status page. At the top, there's a navigation bar with the AWS logo, 'Services' dropdown, and account information ('Local Administration/janasa1x @ 7231-1946-3666' and 'N. Virginia'). Below the header, a green box displays the message 'Your instances are now launching' with a red arrow pointing to the text 'The following instance launches have been initiated: i-0719207e3bde38334'. There's also a link 'View launch log'. Below this, a blue box contains the message 'Get notified of estimated charges' with a sub-note about creating billing alerts. Further down, there's a section titled 'How to connect to your instances' with instructions and links to 'View Instances' and 'Getting started with your software' (Intel® Distribution of OpenVINO™ Toolkit). At the bottom, there are 'Feedback' and language selection ('English (US)') buttons, along with legal links ('Privacy Policy' and 'Terms of Use').

8. Connect to Jupyter Notebook.

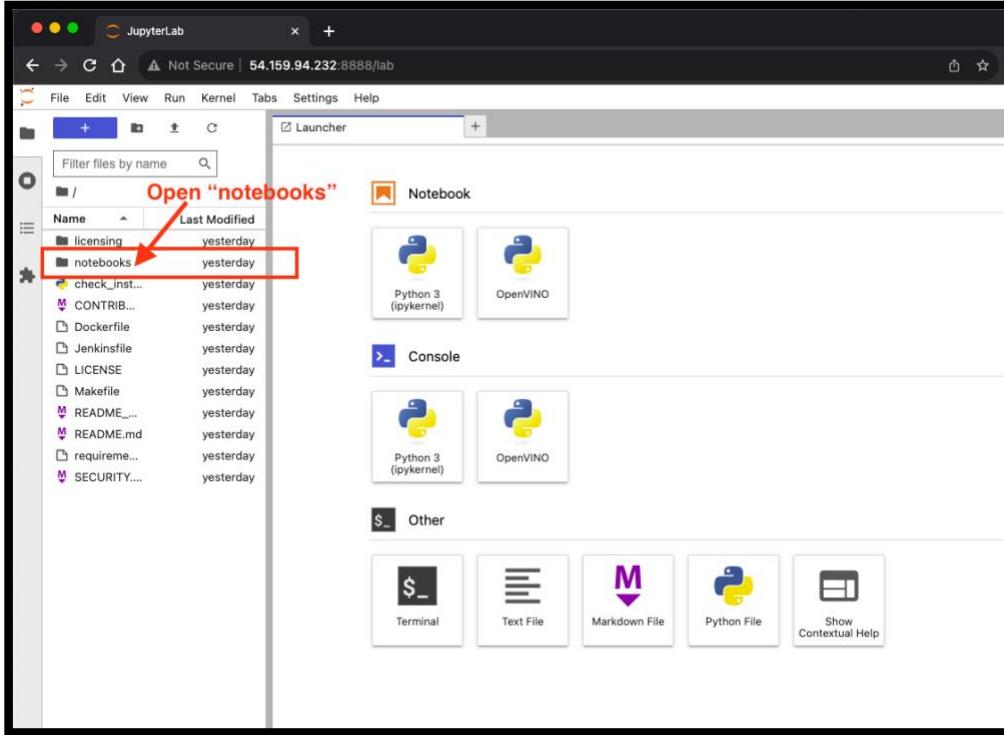
Open a browser window and navigate to the URL given below. (NOTE: Replace text below in red.)

**http://<your ec2-instance Public IP>:8888**

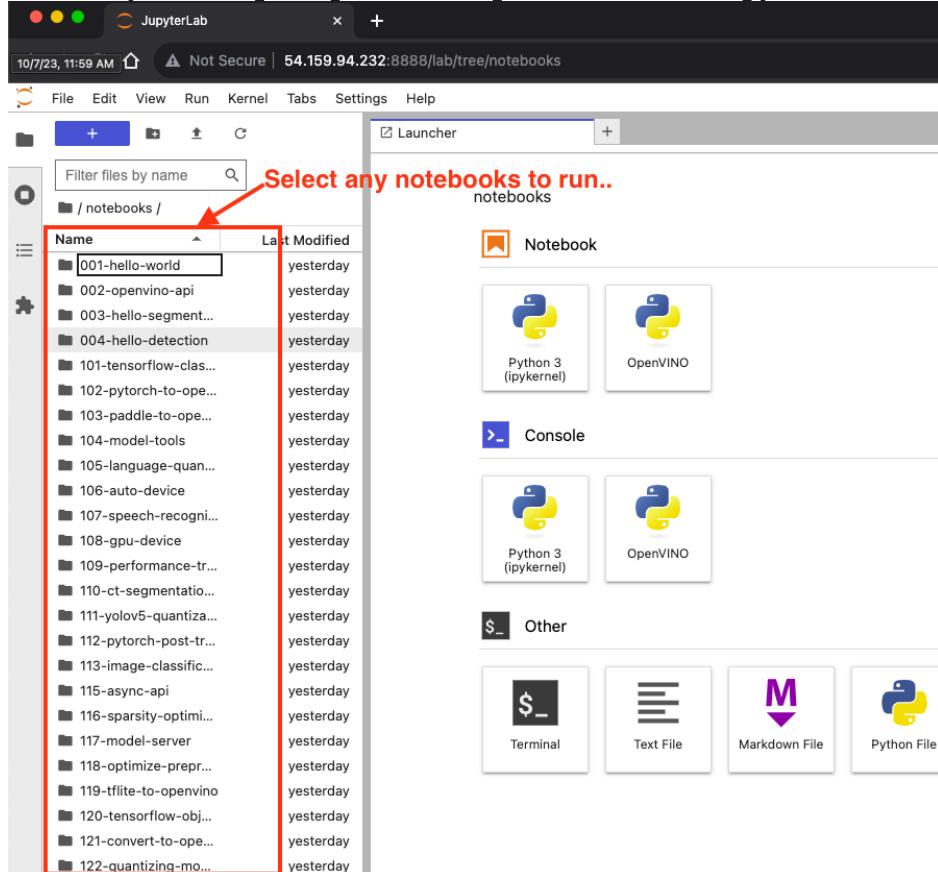
**Password or token: <your ec2-instance id is your password>**

The screenshot shows a browser window for 'Jupyter Server' at the URL 'Not Secure | 54.159.94.232:8888/login?next=%2Flab%3F'. The page title is 'jupyter'. A red box highlights the text 'Password is your <ec2-instance-id>' above a password input field. Another red box highlights the 'Log in' button next to the input field. Below the input field, the text 'Token authentication is enabled' is displayed, along with instructions for using tokens instead of passwords. A command-line interface (CLI) box shows the command 'jupyter server list', which lists running servers with their tokens. A note says tokens can be pasted directly into the password field. A link to documentation for enabling a password is provided. A note at the bottom states that cookies are required for authenticated access.

Double click “notebooks” folder to open list of notebooks.



Select any folder open .ipnb file to open and run the Jupyter notebook.



- IF you want to connect to the instance via SSH, go to EC2->instances web portal, select the select the instance and Click “Connect” to view instructions to SSH into the instance.  
 - Click on the “Connect” button on top of the page to launch web CLI

The screenshot shows the AWS EC2 Instances page. On the left, there's a sidebar with various navigation options like EC2 Dashboard, Events, Tags, Limits, Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Scheduled Instances, Capacity Reservations, and Images. The main area displays a table with one instance listed. The instance details include: Name (unchecked), Instance ID (i-0719207e3bde38334), Instance state (Running), Instance type (c5.4xlarge), Status check (2/2 checks ...), and Alarm Stat (No alarms). Below the table, there's an 'Instance summary' section with fields for Instance ID, Instance state, Public IPv4 address (with a red arrow pointing to the 'open address' link), Private IPv4 addresses, Public IPv4 DNS, and Private IPv4 DNS. At the bottom right of the page, there are links for Feedback, English (US), Privacy Policy, and Terms of Use.

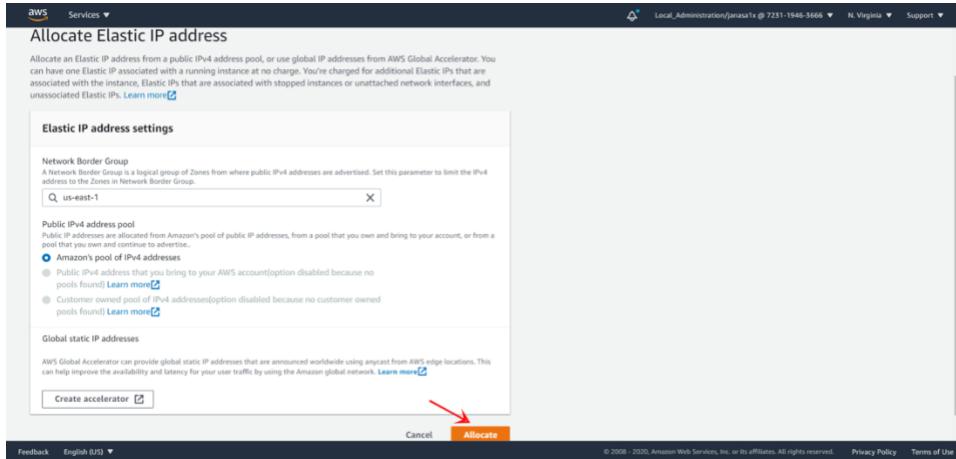
## 10. [Optional] Allocating Elastic IP address.

If you stop and start the instance, the IP address will change.  
 Do this step if you want to keep the same IP address.

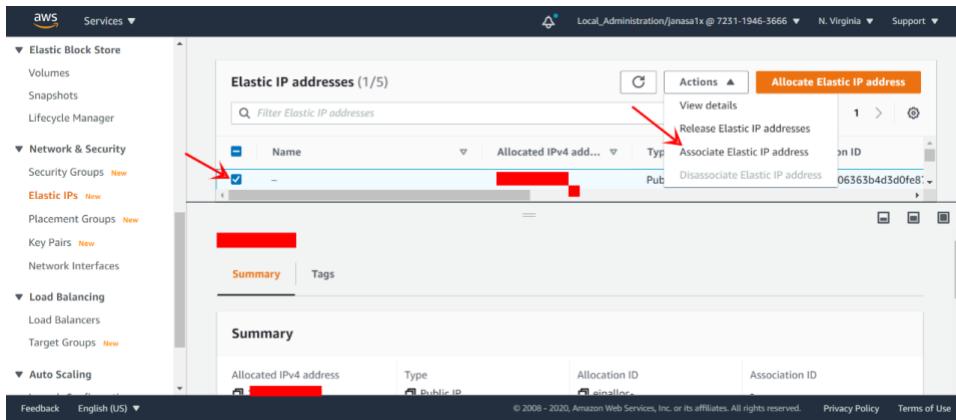
Go to “Elastic IPs”. Click on “Allocate Elastic IP address”.

The screenshot shows the AWS Elastic IP Addresses page. On the left, there's a sidebar with options like Images, AMIs, Elastic Block Store, Volumes, Snapshots, Lifecycle Manager, Network & Security (with 'Elastic IPs' highlighted in red), Placement Groups, Key Pairs, Network Interfaces, Load Balancing, and Transfer Groups. The main area shows a table titled 'Elastic IP addresses (4)'. The table has columns for Name, Allocated IPv4 add..., Type, and Allocation ID. At the top right of the table, there's a red arrow pointing to the 'Allocate Elastic IP address' button. The table also includes a 'Actions' dropdown and a search bar. At the bottom right, there are links for Feedback, English (US), Privacy Policy, and Terms of Use.

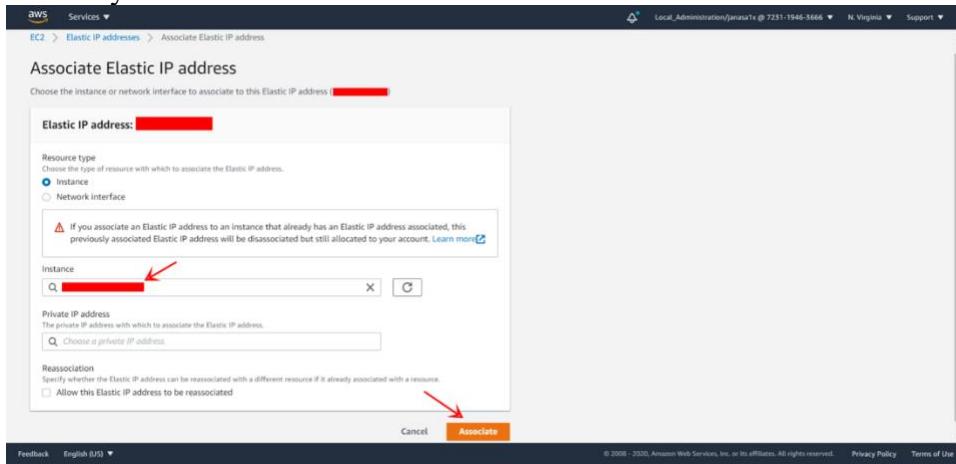
Click on “Allocate”.



Go to “Actions”. Select “Associate Elastic IP address”.

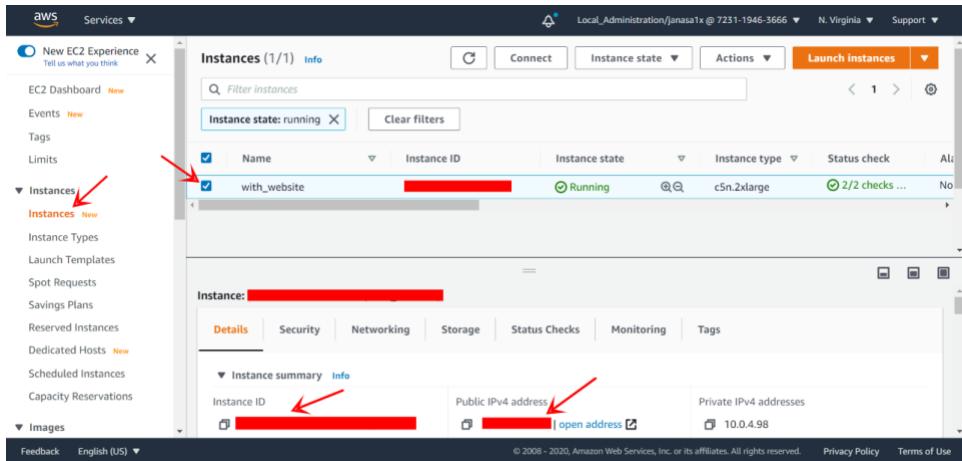


Choose your instance. Click on “Associate”.



Go to “Instances”.

Copy Public IPv4 address and instance-id, they will be public IP and password to Jupyter Notebook.

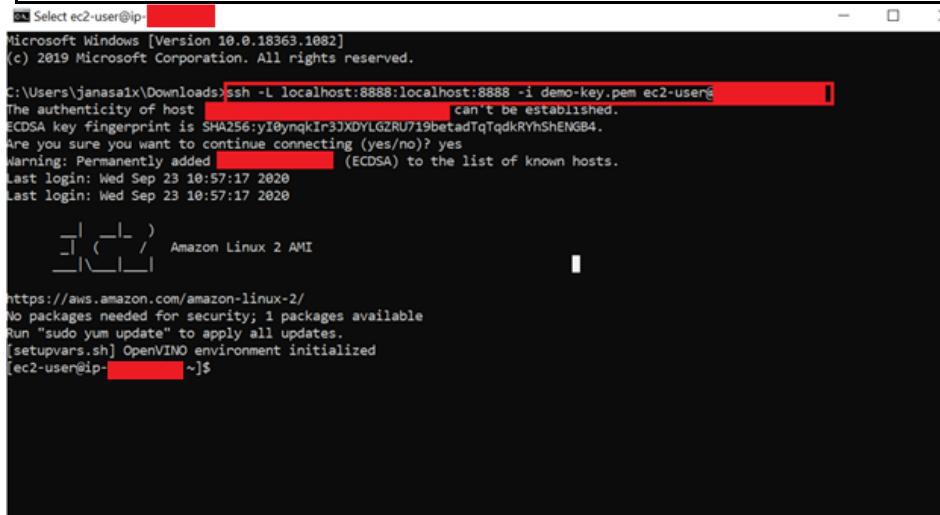


**NOTE: Stop the instance when not in use to prevent additional charges.** AWS charges you for the hours that your EC2 instance is running. To save money, you can stop your EC2 instance when you're not using it. You can also use spot instances, which are EC2 instances that are available at a discounted price. However, spot instances can be terminated at any time if AWS needs to use the resources for other customers.

## 6. [Optional] Connect to your instance via Terminal

Open a terminal then connect to your instance using SSH and Replace text below in red.

```
cd /Users/your_username/Downloads/  
  
chmod 0400 <your .pem file name>  
  
ssh -L localhost:8888:localhost:8888 -i <your .pem file name> ec2-  
user@<Your instance Public IP>  
  
# If you need to connect via proxy:  
  
ssh -o ProxyCommand='nc -x <your_proxy_address>:<your_proxy_port> <Your  
instance DNS> 22' -L localhost:8888:localhost:8888 -i <your .pem file  
name> ec2-user@<Your instance Public IP>
```



The screenshot shows a terminal window titled "Select ec2-user@ip-XXXXXX" running on Microsoft Windows. The command entered is "ssh -L localhost:8888:localhost:8888 -i demo-key.pem ec2-user@ip-XXXXXX". The output shows the host key fingerprint being displayed and a warning about adding it to the list of known hosts. It also shows the user's home directory (~) and the OpenVINO environment being initialized. The terminal window has a black background with white text and a standard Windows-style border.

## 7. [Optional] Change the Jupyter Notebook password.

Login to instance via SSH and replace the text below in red.

```
pkkill jupyter  
  
Change password in `~/.start_jupyter.sh` and run `~/.start_jupyter.sh`  
  
OR  
  
jupyter notebook --no-browser --NotebookApp.allow_password_change=False  
--NotebookApp.token='<new password>' --ip 0.0.0.0 --port 8888 >  
/tmp/jupyter.out 2>&1 &
```

```
[ec2-user@ip-10-0-4-169 ~]$ pkill jupyter
[ec2-user@ip-10-0-4-169 ~]$ cat start_jupyter.sh
TOKEN= curl -X PUT "http://169.254.169.254/latest/api/token" -H "X-aws-ec2-metadata-token-ttl-seconds: 21600"
INSTANCE_ID= curl -H "X-aws-ec2-metadata-token: $TOKEN" http://169.254.254/latest/meta-data/instance-id

cd /home/ec2-user
source /home/ec2-user/.bashrc
#source /opt/intel/openvino_2021/bin/setupvars.sh

export PATH=/opt/intel/openvino_2021/deployment_tools/model_optimizer:/opt/intel/openvino_2021/data_processing/gstreamer/bin:/opt/intel/openvino_2021/data_processing/gstreamer/bin/gstreamer-1.0:/usr/local/bin:/usr/local/sbin:/usr/sbin:/home/ec2-user/.local/bin:/home/ec2-user/bin

export LD_LIBRARY_PATH=/opt/intel/openvino_2021/data_processing/dl_streamer/lib:/opt/intel/openvino_2021/data_processing/gstreamer/lib:/opt/intel/openvino_2021/openvnc/lib:/opt/intel/openvino_2021/deployment_tools/ngraph/lib:/opt/intel/openvino_2021/deployment_tools/inference_engine/external/hddl_unite/lib:/opt/intel/openvino_2021/deployment_tools/inference_engine/external/hddl/lib:/opt/intel/openvino_2021/deployment_tools/inference_engine/external/gna/lib:/opt/intel/openvino_2021/deployment_tools/inference_engine/external/mkltiny_lnx/lib:/opt/intel/openvino_2021/deployment_tools/inference_engine/external/tbb/lib:/opt/intel/openvino_2021/deployment_tools/inference_engine/lib/intel64
export PYTHONPATH=/opt/intel/openvino_2021/python/python3.7:/opt/intel/openvino_2021/python/python3:/opt/intel/openvino_2021/deployment_tools/open_model_zoo/tools/accuracy_checker:/opt/intel/openvino_2021/deployment_tools/model_optimizer:/opt/intel/openvino_2021/data_processing/dl_streamer/python:/opt/intel/openvino_2021/data_processing/gstreamer/lib/python3.6/site-packages:

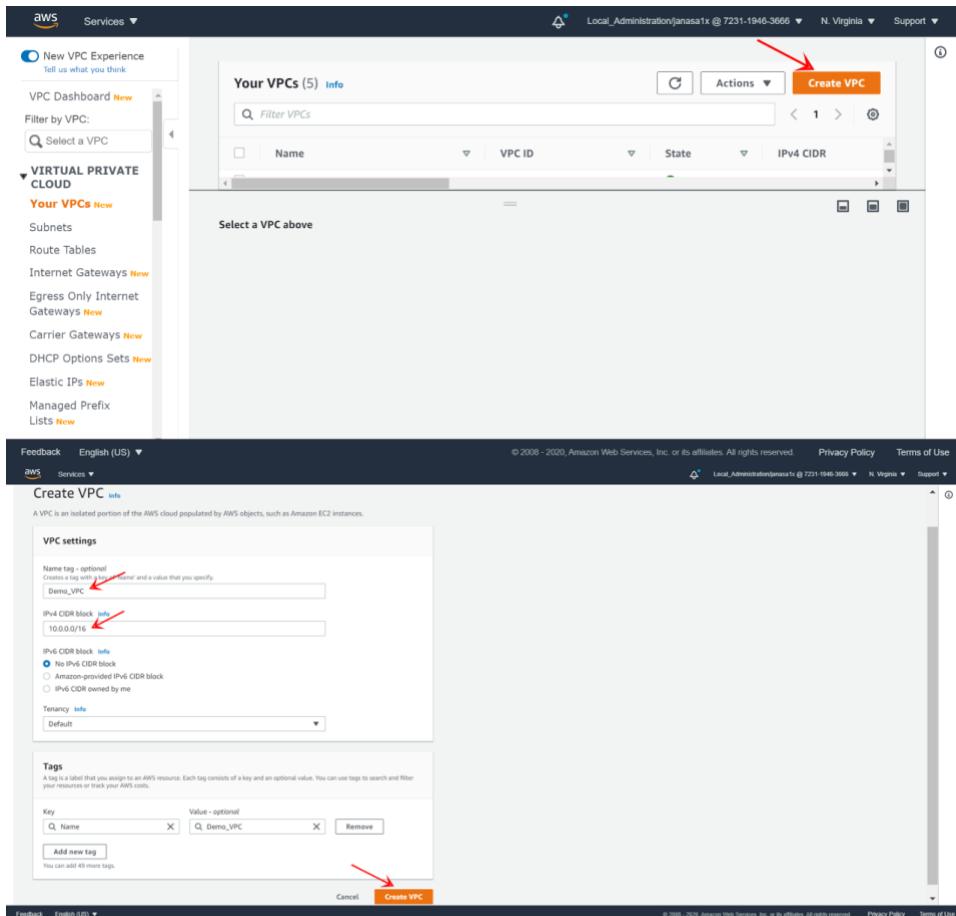
/home/ec2-user/.local/bin/jupyter notebook --no-browser --NotebookApp.allow_password_change=False --NotebookApp.token="$INSTANCE_ID" --ip 0.0.0.0 --port 8888 > /tmp/jupyter.out 2>&1 &

[ec2-user@ip-10-0-4-169 ~]$ jupyter notebook --no-browser --NotebookApp.allow_password_change=False --NotebookApp.token='openvino@123' --ip 0.0.0.0 --port 8888 > /tmp/jupyter.out 2>&1 &
[1] 4695
```

## 8. Appendix

### 8.1 Create VPC with internet access

#### 1. Navigate to VPC then click on Create VPC



Please fill in the following fields on the page and click “Create VPC”:

- **Name tag – optional** → Demo\_VPC (Example Name)
- **IPv4 CIDR block** → 10.0.0.0/16
- **IPv6 CIDR block** → No IPv6 CIDR block
- **Tenancy** → Default

## 2. Create an internet gateway with the following details.

The screenshot shows the AWS VPC console. On the left sidebar under 'VIRTUAL PRIVATE CLOUD', 'Internet Gateways' is highlighted with a red arrow. The main pane displays the 'Internet gateways (4) Info' page, showing a table with columns: Name, Internet gateway ID, State, and VPC ID. A red arrow points to the 'Create internet gateway' button at the top right of the table header. Below the table, there's a note: 'Select an internet gateway above'. The URL in the browser is 'VPC > Internet gateways > Create internet gateway'. The sub-page title is 'Create internet gateway' with a 'Info' link. It contains two sections: 'Internet gateway settings' (with a 'Name tag' field containing 'Demo\_IGW') and 'Tags - optional' (with a 'Key' field 'Name' and a 'Value - optional' field 'Demo\_IGW'). A red arrow points to the 'Create internet gateway' button at the bottom of this section.

Please fill the following field in the page and click “Create Internet gateway”

- **Name tag** → Demo\_IGW (Example Name)

### 3. Attach the created VPC to the internet gateway.

The screenshot shows the AWS VPC Internet Gateways page. A red arrow points to the 'Actions' menu for an internet gateway, specifically highlighting the 'Attach to VPC' option. Below, another red arrow points to the 'Attach to VPC' button on the 'Attach to VPC' dialog box, which is overlaid on the main page.

- Click “Attach to a VPC”.
- Choose the VPC (Demo\_VPC) that we created and click “Attach Internet Gateway”.

### 4. Create Public Subnet.

The screenshot shows the AWS VPC Subnets page. A red arrow points to the 'Create subnet' button at the top left. Another red arrow points to the 'Subnets' link in the left-hand navigation menu, which is highlighted in red. The main table lists existing subnets, with one row selected.

Create subnet

Specify your subnet's IP address block in CIDR format; for example, 10.0.0.0/24. IPv4 block sizes must be between a /16 netmask and /28 netmask, and can be the same size as your VPC. An IPv6 CIDR block must be a /64 CIDR block.

VPC CIDRs	CIDR	Status	Status Reason
	10.0.0.0/16	associated	

**IPv4 CIDR block\*** 10.0.4.0/24

⚠ CIDR Address overlaps with existing Subnet CIDR: 10.0.4.0/24

\* Required

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Please fill the following field in the page & click “Create”:

- **Name tag** → Public\_Demo\_Subnet (Example Name)
- **VPC\*** → Choose the VPC (Demo\_VPC) that we created
- **Availability Zone** → us-east-1a (Choose your respective region)
- **IPv4 CIDR block\*** → 10.0.4.0/24

## 5. Create “Route Table”.

New VPC Experience Tell us what you think

Create route table Actions ▾

Filter by tags or search by keyword

Name	Route Table ID	Explicit subnet association	Edge associations	Main	VPC ID
vpc-009040...	rtd-02014000000000000000			No	vpc-00904000000000000000
vpc-0091fba...	rtd-057150e5e74d72eef			Yes	vpc-0091fba00000000000000

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Route Tables > Create route table

### Create route table

A route table specifies how packets are forwarded between the subnets within your VPC, the internet, and your VPN connection.

Name tag Public\_Demo\_RT

VPC\* [redacted]

Key	(128 characters maximum)	Value	(256 characters maximum)
This resource currently has no tags			

Add Tag 50 remaining (Up to 50 tags maximum)

\* Required

Cancel Create

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Please fill the following field in the page & click “Create”:

- **Name tag** → Public\_Demo\_RT (Example Name)

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- **VPC\*** → Choose the VPC (Demo\_VPC) that we created

## 6. Attach the created internet gateway in the “route table”.

The screenshot shows the AWS VPC Dashboard. On the left sidebar, under 'Route Tables', the 'Public\_Demo\_RT' route table is selected. A red arrow points to the 'Edit routes' button at the bottom of the table's detail view. The top navigation bar includes 'Create route table' and 'Actions'.

Click “Edit routes” and add a route with the following details & click “Save routes”

- **Destination** → 0.0.0.0/0 (Any)
- **Target** → Choose your Internet Gateway(Demo\_IGW)

The screenshot shows the 'Edit routes' dialog box. It lists two routes: one for '10.0.0.0/16' targeting 'local' and another for '0.0.0.0' targeting a specific IP address. At the bottom right, there are 'Cancel' and 'Save routes' buttons, with a red arrow pointing to the 'Save routes' button.

## 7. Attach the created public subnet in the “route table”.

Click “Edit subnet associations” and choose the following details and click “Save”.

New VPC Experience  
Tell us what you think

VPC Dashboard New  
Filter by VPC:  
Select a VPC

**VIRTUAL PRIVATE CLOUD**  
Your VPCs New  
Subnets  
**Route Tables**  
Internet Gateways New  
Egress Only Internet Gateways New

Create route table Actions ?

Route Table: **Public\_Demo\_RT**

Summary Routes Subnet Associations Edge Associations Route Propagation

Edit subnet associations

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**Subnet ID → Choose the created Public Subnet(Public\_Demo\_Subnet)**

Route Tables > Edit subnet associations

Edit subnet associations

Route table **Public\_Demo\_RT**

Associated subnets

Required

Cancel Save

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## 8. Create Network ACL.

Please fill the following field in the page and click “Create”

New VPC Experience  
Tell us what you think

Lists New  
Endpoints  
Endpoint Services  
NAT Gateways New  
Peering Connections  
**SECURITY**  
**Network ACLs**  
Security Groups New

**VIRTUAL PRIVATE NETWORK (VPN)**  
Customer Gateways  
Virtual Private Gateways  
Site-to-Site VPN Connections  
Client VPN Endpoints

Create network ACL Actions ?

Name Network ACL ID Associated with Default VPC Owner

BU-UUUC310Z4CC1... BUSINESS TES vpc-427a180e00000000 Local\_Administration@7231-1946-3666 N. Virginia Support

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A network ACL is an optional layer of security that acts as a firewall for controlling traffic in and out of a subnet.

Name tag: Demo\_NACL

VPC\*: [Redacted]

\* Required

Create

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- **Name tag** → Demo\_NACL (Example Name)
- **VPC\*** → Choose the VPC (Demo\_VPC) that we created

## 9. Click Edit inbound rules and add the following rules.

Rule #	Type	Protocol	Port Range	Source	Allow / Deny
*	ALL Traffic	ALL	ALL	0.0.0.0/0	DENY

Edit inbound rules

Rule #	Type	Protocol	Port Range	Source	Allow / Deny
1	SSH (22)	TCP (6)	22	[Redacted]	ALLOW
2	Custom TCP Rule	TCP (6)	8888	[Redacted]	ALLOW

Add Rule

\* Required

Cancel Save

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## Inbound rules

Type	Port	Source	Allow/Deny
SSH	22	Your System IP	Allow
Custom TCP Rule	8888	Your System IP	Allow

## 10. Create a Security Group

The screenshot shows the AWS EC2 instance creation process at Step 6: Configure Security Group. The security group is named "Intel- Distribution of OpenVINO- Toolkit-2021-1-AutogenByAWSP". Two rules are defined:

Type	Protocol	Port Range	Source	Description
SSH	TCP	22	My IP	e.g. SSH for Admin Desktop
Custom TCP F	TCP	8888	My IP	e.g. SSH for Admin Desktop

At the bottom right, there are "Cancel", "Previous", and "Review and Launch" buttons. A red arrow points to the "Review and Launch" button.

- For Source, we recommend “MY IP”, you could choose “anywhere” also.
- The security group needs two open ports, “22” for SSH login, “8888” for Jupyter access

## 9. Summary:

- This document provided you with step-by-step instructions on how to create an EC2 instance using the Intel® Distribution of OpenVINO™ toolkit AMI. It is important to note that Amazon Web Services (AWS) charges you based on the number of hours your server is running. Therefore, it is recommended to stop the server when it is not in use to save on your costs.

## 10. Additional Resources:

- [OpenVINO Developer Guide and Documentation](#)
- [OpenVINO Open Model Zoo](#)
- [AWS OpenVINO AMI](#)



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