

V0.3 – 10-17-2023

Intel® Developer Cloud

Getting Started – For Developers



Intel® Developer Cloud

TLDR

Please follow the steps below to get developer access to Intel® Developer Cloud:

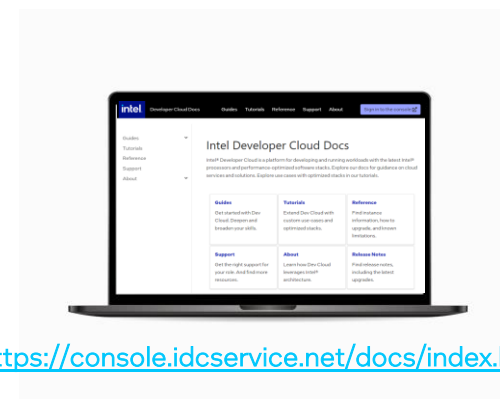
1. Go to Intel Developer Cloud: <https://cloud.intel.com/>
2. Click Get Started.
3. Register for a “**Standard**” account by completing the Standard registration form.
4. Log in via the Intel Developer Cloud landing page <https://cloud.intel.com/>
5. Select the Training catalog in the Intel® Developer Cloud portal.

Intel® Developer Cloud Overview



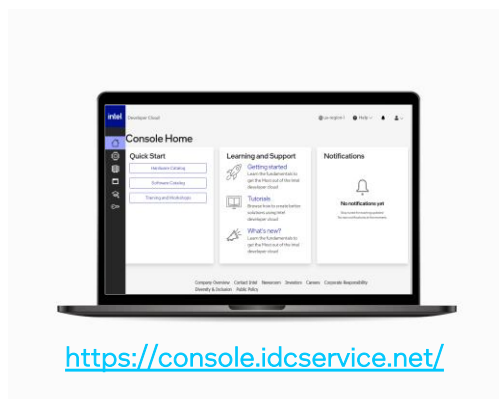
Home landing page:

- Account registration
- Login
- News updates
- Account types
- FAQ



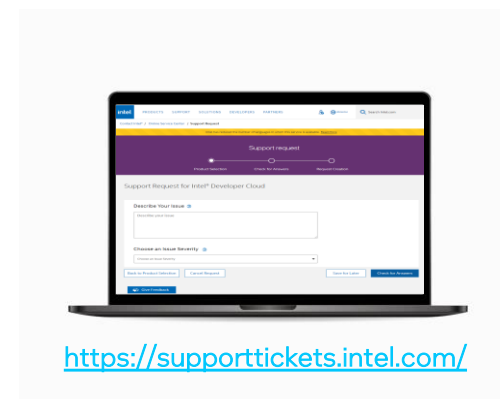
Documentation page:

- Guides
- Tutorials
- References
- Support
- Release notes



Cloud portal:

- Account admin
- Quick start home page
- Service Instances
- Hardware catalog
- Software catalog
- Training catalog



Service desk:

- Knowledge base
- Community support
- Ticketing
- 24 x 7 support
- Dedicated SRE team

Intel® Developer Cloud

Prerequisites

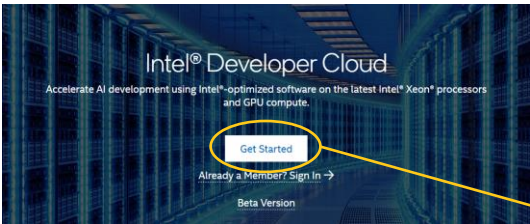
- Make sure you do not use a temporary email domain to register
- Users located in China can not register for an Intel® Developer Cloud user account at this point in time
- If you are a new user who has not registered with any other Intel service, follow the next “New User Account Creation” slide
- If you are an existing user using any other Intel services, follow the “Existing User Account with other Intel service access” slide

The recommendation for developers is to create a **Standard (free)** Intel® Developer Cloud user account.

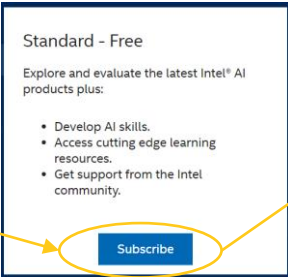
Most developers are expected to use the Training Catalog

Intel® Developer Cloud

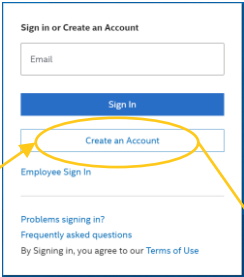
New User Account Creation



Select Get Started on Cloud.intel.com



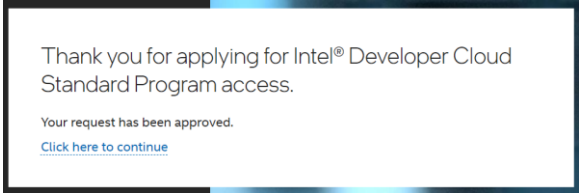
Click Subscribe for "Standard Tier to create new account

The image shows a registration form with the following fields: Email (Your_email@domain.com), Confirm Email (Your_email@domain.com), First Name (John), Last Name (Samuel), English for USA (English) (dropdown), United States (dropdown), New Password (password field), and Confirm New Password (password field). There are also checkboxes for 'I would like to subscribe to stay connected to the latest Intel technologies and industry trends by email and telephone. I can unsubscribe at any time.' and 'By submitting this form, you are confirming you are an adult 18 years or older and you agree to share your personal information with Intel, Intel's web sites and communications are subject to our Privacy Notice and Terms of Use.' A yellow circle highlights the 'Next: Verify your email' button.

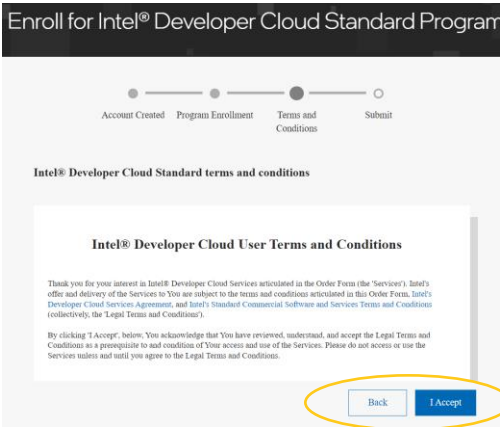
Enter Your details

The image shows a verification screen with the text 'We just sent a code to abhijit8@gmail.com' and a 'Verification code' field containing '183017'. A yellow circle highlights the 'Create an account' button. There is also a 'Send new code' button.

Enter OTP code you received in your email



Welcome to Intel Developer Cloud

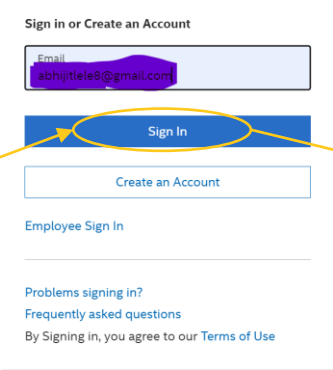
The image shows the 'Enroll for Intel® Developer Cloud Standard Program' page. A yellow circle highlights the 'Next: Terms And Conditions' button. The page includes a progress bar with steps: Account Created, Program Enrollment, Terms and Conditions, and Submit. It also includes a section for 'Please tell us about yourself' with fields for Country/Region Code (Canada +1), Phone (123456789), and Extension (Optional). There is also a section for 'Please tell us about your company' with a text field for Company or Institution (Optional).

Intel® Developer Cloud

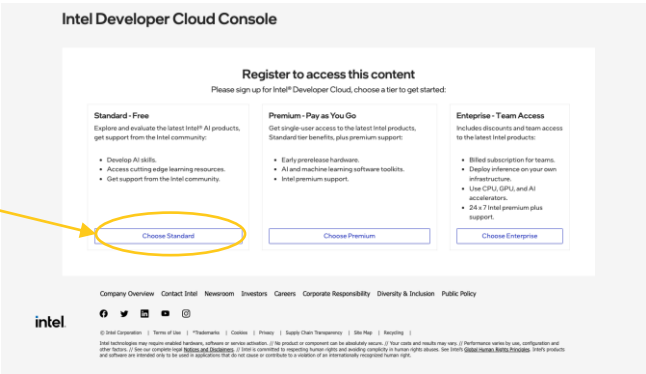
Existing User Account with other Intel service access



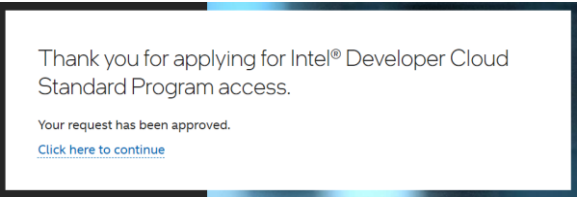
Select Already Member? Sign In on Cloud.intel.com



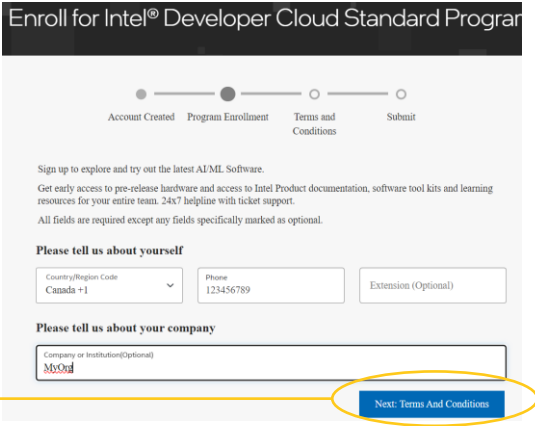
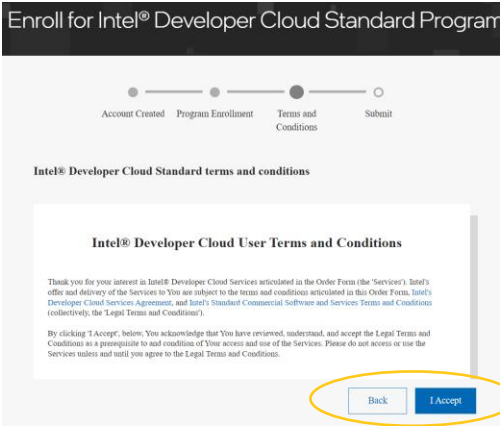
Enter Email and Password



Click "Choose Standard"



Welcome to Intel Developer Cloud



Intel® Developer Cloud

Redeeming Cloud Credits (Optional for Developers)

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us-region-1 Help

Console Home

Quick Start

Hardware Catalog

Software Catalog

Training and Workshops

Cloud Credits

Learning and Support

Getting started

Tutorials

What's new?

Notifications

No notifications yet

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Cloud Credits

As of Monday, June 19, 2023 at 06:43:33 PM

No cloud credits

Your account currently has no cloud credits. Redeem a coupon to get cloud credits.

Redeem coupon

Back to cloud credits

Redeem coupon

Coupon Code *

RT7V-SX4C-M5EP

Redeem Cancel

Cloud Credits

As of Sunday, October 8, 2023 at 04:35:46 PM

Remaining credits: \$50.00

Used credits: \$0.00

Redeem coupon

Cloud History

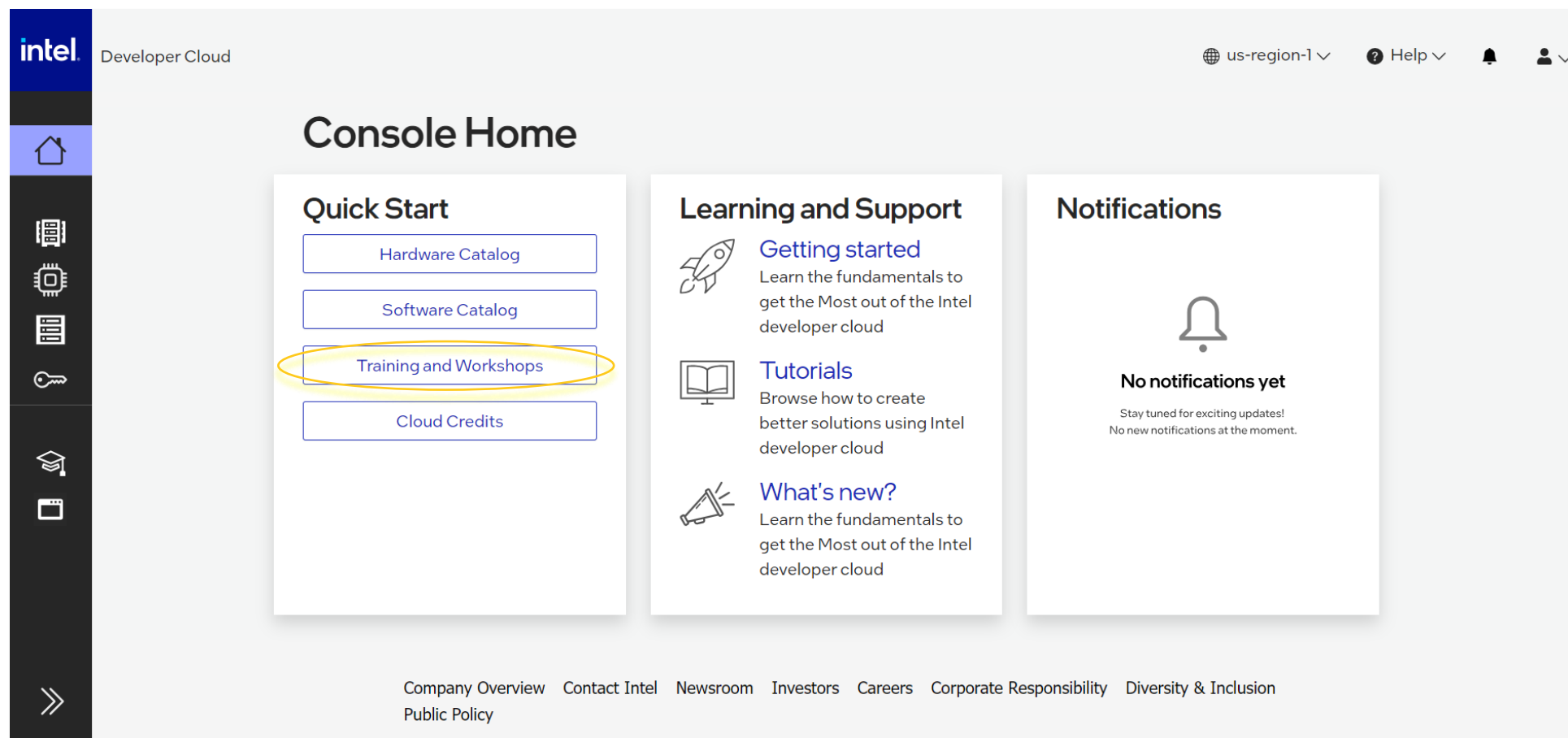
Filter credits

Credit Type	Obtained on	Expiration date	Total credit amount	Amount used	Amount remaining
CREDIT_INITIAL	10/8/2023 16:35	10/9/2023 12:01	\$50.00	\$0.00	\$50.00

5/Page Previous 1 Next

Intel® Developer Cloud

Training Catalog



Intel® Developer Cloud

Training Catalog – One-Click Jupyter Access

The screenshot displays the Intel Developer Cloud Training Catalog interface. The top navigation bar includes the Intel logo, 'Developer Cloud', a region selector set to 'us-region-1', and links for 'Help', notifications, and user profile. A left sidebar contains icons for home, training, and other resources, with the training icon highlighted. The main content area is titled 'Training and Workshops' and is divided into two sections: 'AI' and 'C++ SYCL'. Each section contains three training cards, each with a 'Launch' button featuring the JupyterLab logo. A yellow oval highlights the 'Launch JupyterLab' button in the top right corner of the AI section. Another yellow oval highlights the 'Launch' button in the 'OpenMP® Offload Basics' card in the C++ SYCL section. A blue line connects these two highlighted buttons to the text 'One-click Jupyter access' on the right side of the image.

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us-region-1 Help

Training and Workshops

AI

- AI Kit XGBoost Predictive Modeling**
Learn predictive modeling with decision trees using Intel® AI Analytics Toolkit
[Launch](#)
- Heterogeneous Programming Using Data Parallel Extension for Numba® for AI and HPC**
Data Parallel Extension for Numba accelerates Python® code on Intel® XPU's
[Launch](#)
- Machine Learning Using oneAPI**
Intel® AI Analytics Toolkit accelerates data science and analytics with Python®
[Launch](#)

C++ SYCL

- Essentials of SYCL**
Learn to write performant and portable code using oneAPI and Data Parallel C++
[Launch](#)
- Performance, Portability, and Productivity**
Learn to write performant and portable HPC code for multiple platforms with oneAPI and DPC++
[Launch](#)
- OpenMP® Offload Basics**
Harness parallel computing for accelerated performance
[Launch](#)
- Migrate from CUDA® to C++ with SYCL®**
Optimize apps from traditional CUDA environments
[Launch](#)

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One-click Jupyter access

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Training Module – One-Click Jupyter or SSH Access

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← Back to training

Heterogeneous Programming Using Data Parallel Extension for Numba® for AI and HPC

Overview

Data Parallel Extension for Numba® is a stand-alone extension to the Numba just-in-time (JIT) compiler and adds SYCL® programming capabilities to Numba. This extension is packaged as part of Intel® Distribution for Python®, which is included with the Intel® AI Analytics Toolkit. This data parallel Python course demonstrates high-performing code targeting Intel® XPU^s using Python®. Developers learn how to take advantage of heterogeneous architectures and speed up applications without using low-level proprietary programming APIs.

Learning objectives

- Explain how the oneAPI programming model can solve the challenges of programming in a heterogeneous world
- Introduce Intel® Distribution of Python and numba-dpex
- Utilize Numba and Numba-dpex to write parallel code on CPU and GPU
- Write explicit kernels using numba-dpex @kernel decorator

Getting started

1. Click on the Launch JupyterLab button.
2. Follow the instructions in the Jupyter notebook.

Launch Jupyter notebook

Options

Considerations
Your Jupyter notebook access will be live until 11/06/2023.

Expert mode
Expert mode allows you to connect using a SSH key.

Launch using SSH

Upload key

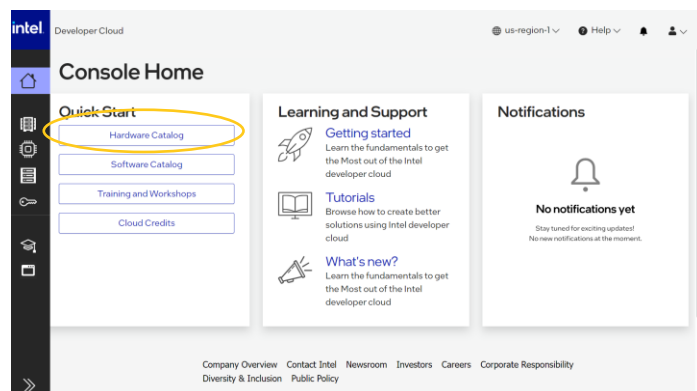
[Learn more about Keys](#)

One-click Jupyter access

SSH access

Intel® Developer Cloud

Hardware Catalog



Available platforms

Filter by:

CATEGORY

☐ Released

TYPE

☐ Virtual Machine☐ Bare Metal

PROCESSOR

☐ CPU☐ GPU

RECOMMENDED USE CASE

☐ Core compute☐ GPU

Core compute



4th Generation Intel® Xeon® Scalable processors

Virtual machines and Bare Metal servers available

Select

Released

GPU



Intel® Max Series GPU

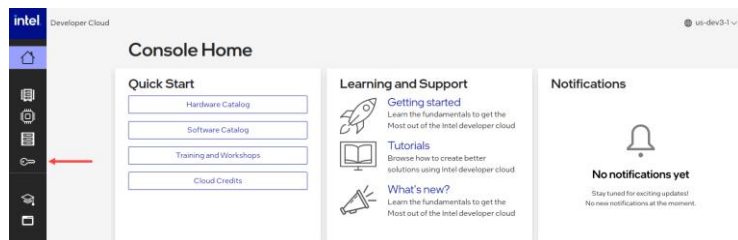
4th Gen CPU, 2 sockets, 256 GB memory, 2 TB disk

Select

Released

Intel® Developer Cloud

Setting Up Secure Access



No keys available

Your account currently has no keys.

Upload key

My SSH key does not follow the standard naming, for example `id_rsa_intel`. How can I specify which SSH key to use?

Please specify the key name using an SSH configuration file as follows. Once you have configured your `~/.ssh/config` file, simply run `ssh idc`.

Host jump

User guest

Hostname 146.152.x.x

IdentityFile ~/.ssh/id_rs_intel

Host idc

Hostname 100.81.x.x

User ubuntu

IdentityFile ~/.ssh/id_rs_intel

ProxyJump jump

Note: Update the Hostnames accordingly using the SSH command provided on Intel Developer Cloud. For example: `ssh -J guest@146.152.x.x`

`ubuntu@100.81.x.x`

FAQ's: [FAQ — Developer Cloud Docs documentation \(intel.com\)](https://www.intel.com/content/www/us/en/developer-cloud/docs/documentation.html)

Upload key

Warning: Never share your private keys with anyone. Never create a SSH Private key without a passphrase.

SSH key details

Key Name: *

my-key

How to create a SSH key

Select your OS:

- ☒ Windows
- ☐ Linux/MacOS

1. Launch a new PowerShell window on your local system.
2. Optional: if you haven't generated a key before, create an .ssh directory.
`mkdir $env:UserProfile\.ssh` [Copy](#)
3. Copy & paste the following to your terminal to generate SSH Keys.
`ssh-keygen -t rsa -b 4096 -f $env:UserProfile\.ssh\id_rsa` [Copy](#)
4. If you are prompted to overwrite, select **No**.
5. Copy & paste the following to your Powershell window to view your SSH key:
`cat $env:UserProfile\.ssh\id_rsa.pub` [Copy](#)
6. Paste your key's contents in the field below.

For more information go to [SSH key documentation](#).

Key contents

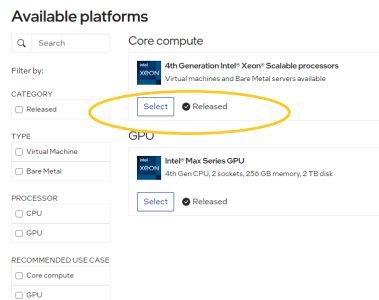
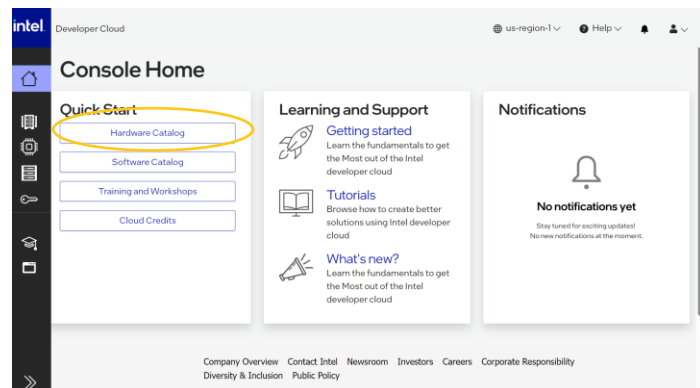
Paste your key contents: *

ssh-rsa
AAAAB3NzaC1yc2EAAAADAQABAAQDAQDBGf5auAayw+y/q2abbHnmccBafEdvtyPFL+OvJvVSBD4XJ/Gv8U7SH
5vFPXPdmzVDyJyqCmRlkvP6UtISx1E/Zk2/R4JNYUGMZDhab0irKnsZZ0JJ+mACIOXGAV8YVY/Km2IGdsSwtsPR

[Upload](#) [Cancel](#)

Intel® Developer Cloud

Deploy and Access the Hardware Platform



Specify the needed information

Instance configuration

Instance family: *

4th Generation Intel® Xeon® Scalable processors

More information:

For a Xeon® processor overview see the [Technical Overview page](#). For detailed processor information see the [Intel product documentation catalog](#), [Intel Accelerator Engine page](#), and the [Accelerator e-guide](#).

Instance type: *

Small VM - Intel® Xeon® 4th Gen Scalable processor
8 cores, 16 GB memory, 20 GB disk

\$0.45 / hour

[Compare instance types](#)

Machine image: *

ubuntu-2204-jammy-v20230122
Version: 22.04
Architecture: X86_64 (VM only)

More information:

Ubuntu Server is a version of the Ubuntu operating system designed and engineered as a backbone for the internet.

Instance name: *

ubuntu-vm

Name must be 63 characters or less, and can include letters, numbers, and '-' only. It should start and end with an alphanumeric character.

Public Keys

Select keys *

☒ id-rsa-pub

[+ Upload Key](#)

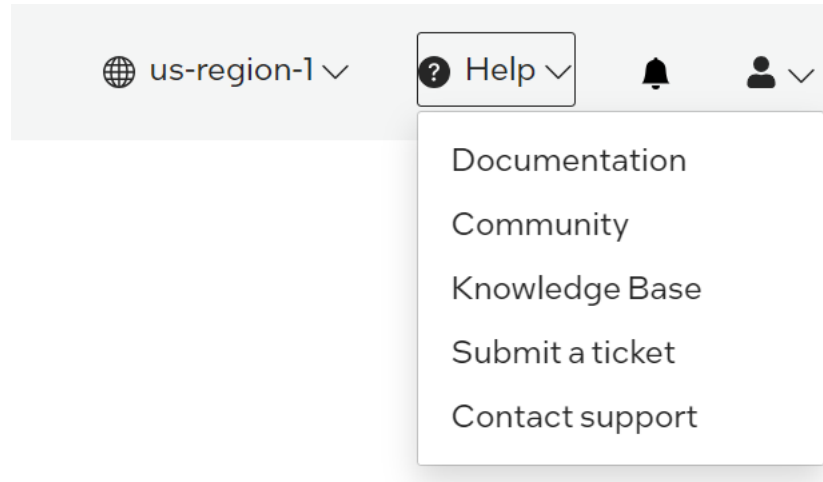
[Refresh Keys](#)

[Launch](#)

[Cancel](#)

Intel® Developer Cloud

Help and Support



[Get Started — Developer Cloud Docs documentation \(intel.com\)](#)

[Intel® Developer Cloud - Intel Community](#)

[Support Request \(intel.com\)](#)

The Intel logo is centered on a solid blue background. It features the word "intel" in a white, lowercase, sans-serif font. A small, light blue square is positioned above the first vertical stroke of the letter 'i'. To the right of the word "intel" is a small white registered trademark symbol (®).

intel®