

# Intel<sup>®</sup> DevCloud

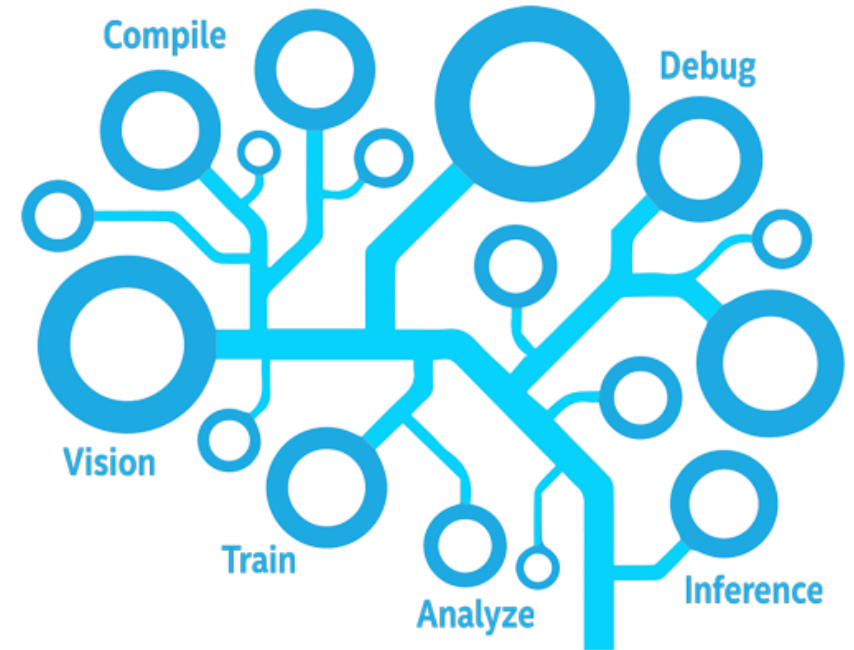


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# Intel® DevCloud

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- Try Out Intel® Hardware
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- Use Popular AI Frameworks



Sign Up for Intel® DevCloud for oneAPI:

<https://software.intel.com/en-us/devcloud/oneapi>

# Access to DevCloud

## ■ Step 1

[software.intel.com/en-us/devcloud/oneapi](https://software.intel.com/en-us/devcloud/oneapi)

### Sign Up for Intel® DevCloud for oneAPI

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Required Fields(\*)

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## ■ Step 2

[devcloud.intel.com/oneapi/get\\_started](https://devcloud.intel.com/oneapi/get_started)

Connect to the DevCloud



Choose Your SSH Connection:

- Cygwin on Windows\*
- Linux\* or macOS\*
- Visual Studio Code Remote
- Remote Desktop (Rendering Toolkit only)

[Connect with Cygwin](#)



Connect with Jupyter\* Notebook

Use Jupyter Notebook to learn about how oneAPI can solve the challenges of programming in a heterogeneous world and understand the Data Parallel C++ (DPC++) language and programming model.

[Launch JupyterLab\\*](#)



Introduction to oneAPI and Essentials of Data Parallel C++

Use Jupyter Notebook\* to learn about how oneAPI can solve the challenges of programming in a heterogeneous world and understand the Data Parallel C++ (DPC++) language and programming model.

[View in Jupyter Notebook](#)

# Jupyter\* Notebook



## Connect with Jupyter\* Notebook

Use Jupyter Notebook to learn about how oneAPI can solve the challenges of programming in a heterogeneous world and understand the Data Parallel C++ (DPC++) language and programming model.

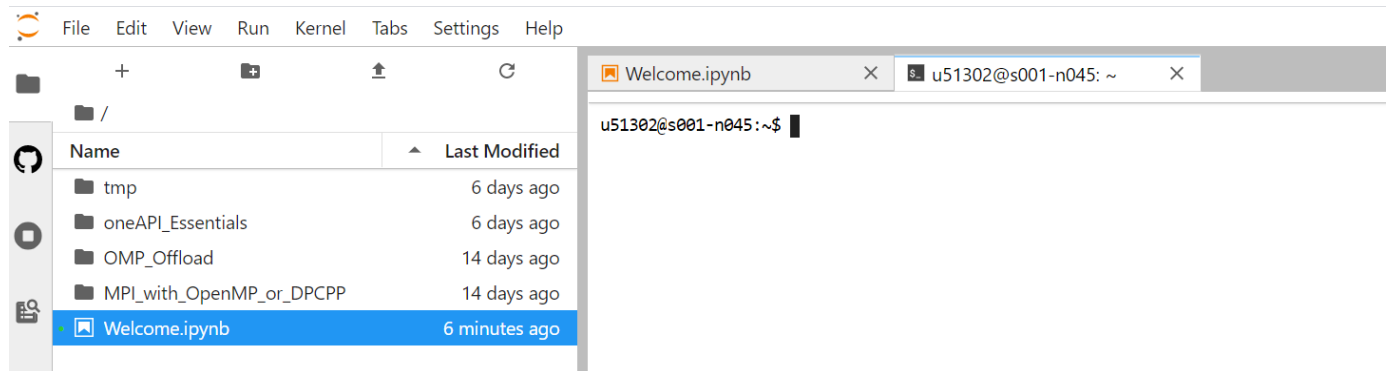
Launch JupyterLab\*



Launch Server



File -> New -> Terminal



# Jump on DevCloud

```
$ pbsnodes -l free
```

```
...list of free nodes...
```

```
$ pbsnodes s001-n046
```

```
...information about node s001-n046...
```

```
$ pbsnodes | more
```

```
...lots more detail...
```

```
$ pbsnodes | grep properties
```

```
...useful properties list...
```

```
$ pbsnodes | grep gpu
```

```
...useful gpu oriented list...
```

```
$ pbsnodes | grep fpga
```

```
...useful fpga oriented list...
```

# Hello Qsub

```
$ mkdir mytst
$ cd mytst
$ cat - > myhello.sh
echo "Hello, World!"
^D
```

```
$ qsub myhello.sh
727974.v-qsvr-1.aidevcloud
```

```
$ qstat
```

Job ID	Name	User	Time Use	S	Queue
727955.v-qsvr-1	...ub-singleuser	u51302	00:00:36	R	jupyterhub

# Hello Qsub

```
$ ls -l total 8
-rw----- 1 u51302 u51302 21 Nov 3 09:38 myhello.sh
-rw----- 1 u51302 u51302 0 Nov 3 09:38 myhello.sh.e727974
-rw----- 1 u51302 u51302 615 Nov 3 09:38 myhello.sh.o727974

$ cat myhello.sh.o727974
#####
# Date: Tue Nov 3 09:38:53 PST 2020
# Job ID: 727974.v-qsvr-1.aidevcloud
# User: u51302
# Resources: neednodes=1:batch:ppn=2,nodes=1:batch:ppn=2,walltime=06:00:00
#####

Hello, World!

#####
# End of output for job 727974.v-qsvr-1.aidevcloud
# Date: Tue Nov 3 09:38:56 PST 2020
#####
```

# Hello Qsub

```
...use a particular node...  
$ qsub -l nodes=s001-n002:ppn=2  
...use a node based on a property...  
$ qsub -l nodes=1:ppn=2:gpu  
$ qsub -l nodes=1:ppn=2:skl  
...request interactive mode...  
$ qsub -I -l nodes=1:gpu:ppn=2 -d .
```

[devcloud.intel.com/oneapi/documentation/job-submission/](https://devcloud.intel.com/oneapi/documentation/job-submission/)



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