

Introduction to OpenOnDemand

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What is OpenOnDemand

- An open source software developed at the Ohio Supercomputing Center
- Enables HPC centers to deploy advanced web and graphical interface for their users
- Provides an integrated single access point for all HPC resources and services
- Extensible design for easy deployment of new services (applications)

How to Access TAMU OnDemand

- You need a valid account on Ada
- Open <https://portal.hprc.tamu.edu> in a browser
- Login with your NetID and password
- VPN is needed if accessing the URL from off campus
- **Logout and close the browser** when you are done, especially if you use a public computer.

Current Applications

- Files
- Jobs
- Clusters
- Interactive applications
 - Jupyter
 - Rstudio
 - Matlab
 - Abaqus
 - Ansys
 - ...

Files

The screenshot shows a web browser window with a single tab titled "File Explorer - /home/pin...". The address bar displays "Secure | https://ada7.tamu.edu:8443/pun/sys/files/fs/home/pingluo/". Below the browser window is the "File Explorer v1.3.6" interface. It features a top navigation bar with buttons for "Go To...", "Open in Terminal", "New File", "New Dir", "Upload", "Show Dotfiles", and "Show Owner/Mode". On the left, a sidebar shows the "Home Directory" tree with folders like CMakeFiles, Desktop, Jupyter-Notebook, OpenFOAM, SASAppData, bak, globus, igv, intel, sasuser.v94, wrf, wxpython, and yellowstone. The main pane shows the current directory "/home/pingluo/" with a toolbar containing "View", "Edit", "A-Z Rename", "Download", "Copy", "Paste", "(Un)Select All", and "Delete". Below the toolbar is a table listing files and directories:

name	size	modified date
..	<dir>	
CMakeFiles	<dir>	10/27/2017
Desktop	<dir>	11/16/2017
Jupyter-Notebook	<dir>	01/26/2018
OpenFOAM	<dir>	12/06/2017
SASAppData	<dir>	12/09/2014
bak	<dir>	01/30/2018
globus	<dir>	12/07/2016
igv	<dir>	12/21/2016
intel	<dir>	03/06/2017
sasuser.v94	<dir>	02/10/2016
wrf	<dir>	01/26/2016
wxpython	<dir>	01/28/2016
yellowstone	<dir>	11/09/2017
1_10KTC.fastq	2.47mb	07/29/2014
2_10KTC.fastq	2.47mb	07/29/2014

Job Composer

Jobs

[+ New Job](#) ☆

[Edit Files](#) [Job Options](#) [Open Terminal](#) ▶ ■ 🗑️

Show entries Search:

Created	Name	ID	Cluster	Status
September 15, 2017 4:31pm	(default) Simple Sequential Job	6754832		Completed
September 15, 2017 4:31pm	(default) Simple Sequential Job			Not Submitted
September 15, 2017 4:30pm	(default) Simple Sequential Job			Not Submitted
September 15, 2017 11:05am	(default) Simple Sequential Job			Not Submitted

Showing 1 to 4 of 4 entries Previous 1 Next

Job Details

Job Name:
(default) Simple Sequential Job

Submit to:

Cluster is not valid! Edit Job Options to select a valid cluster.

Account:
Not specified

Script location:

Script name:

Active Jobs

All Jobs ▾ All Clusters ▾

Active Jobs

Show entries

Filter:

	ID	Name	User	Account	Time Used	Queue	Status	Cluster
>	7166285	tsii4	jiv	082806458...	214:46:27	special	Running	Ada
>	7166316	22-1	vulpecuia17	082793017...	214:09:35	special	Running	Ada
>	7166351	22-2	vulpecuia17	082793017...	213:50:02	special	Running	Ada
>	7166374	22-3	vulpecuia17	082793017...	213:34:11	special	Running	Ada
>	7166383	scs-37	vamshij	082789660...	213:26:52	special	Running	Ada
>	7175048	CO2_50_4nm_3500_p	karv9ace	082788030...	21:15:19	sn_long	Running	Ada
>	7177521	Viridiplantae	dbrowne	082790642...	01:28:32	sn_regular	Running	Ada
>	7166391	scs-38	vamshij	082789660...	213:23:04	special	Running	Ada
>	7177550	Viridiplantae	dbrowne	082790642...	00:40:27	sn_regular	Running	Ada

Clusters

```
← → ↻ 🔒 Secure | https://ada7.tamu.edu:8443/pun/sys/shell/ssh/ada.tamu.edu
NOTICE: This computer system and data herein are available only for
authorized purposes by authorized users. Use for any other purpose
may result in administrative/disciplinary actions or criminal prosecution
against the user. Usage may be subject to security testing and monitoring.
Applicable privacy laws establish the expectations of privacy.

pingluo@ada.tamu.edu's password: █
```

Launching Jupyter Notebook

← → ↻ Secure | https://ada7.tamu.edu:8443/pun/sys/dashboard/batch_connect/sys/jupyter/session_contexts/new ☆

[Home](#) / [Interactive Sessions](#) / Jupyter Notebook (Ada)

Interactive Apps

Servers

Jupyter Notebook (Ada)

This app will launch a [Jupyter Notebook](#) server on the [Ada](#) cluster.

Account

This field is optional.

Number of hours

Number of cores:

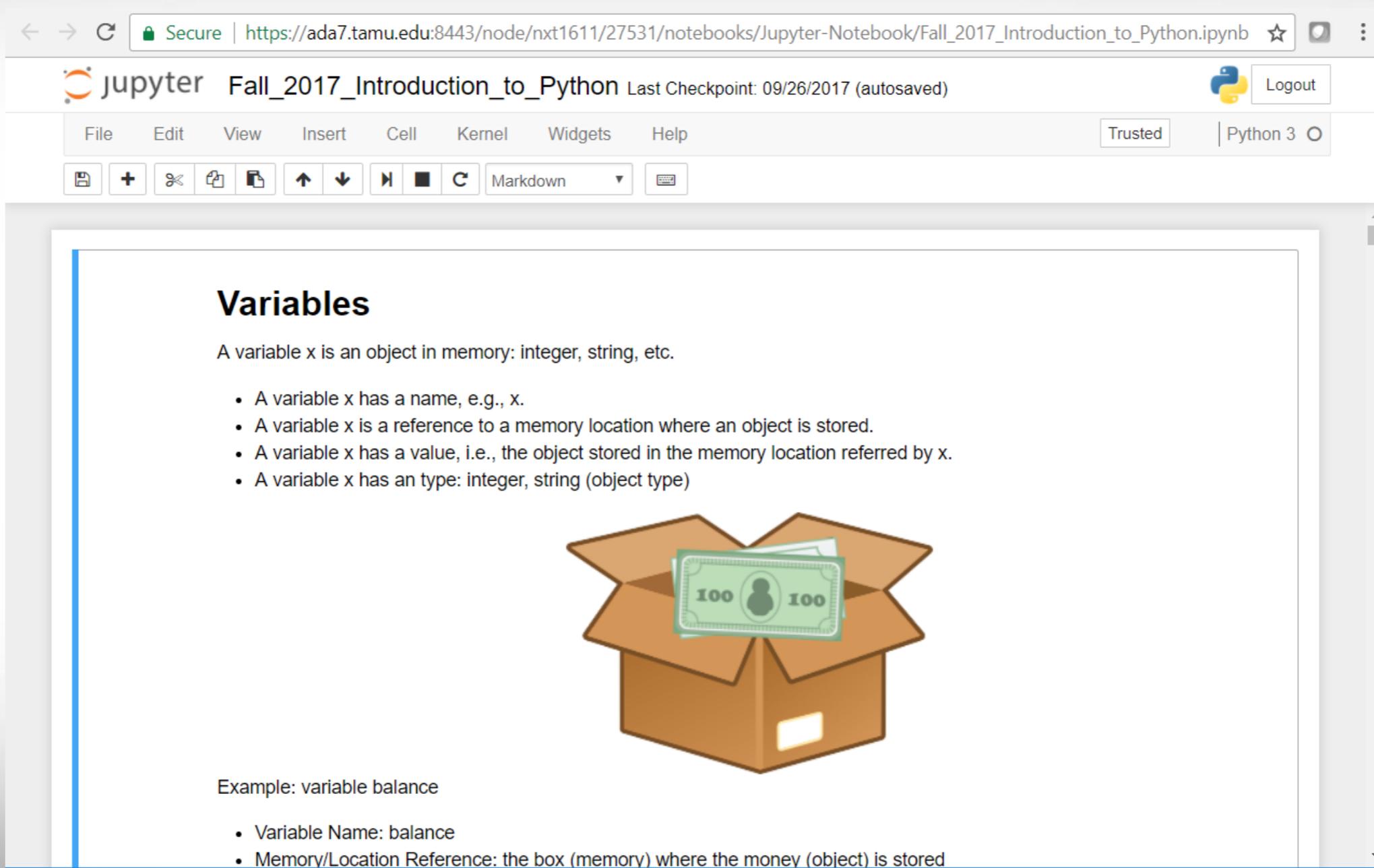
Specify the number of cores [1-20] allocated on a node from the [Ada](#) cluster.

I would like to receive an email when the session starts

[Launch](#)

* All Jupyter Notebook (Ada) session data is generated and stored under the user's home directory in the corresponding [data root directory](#).

Running Jupyter Notebook



The screenshot shows a web browser window displaying a Jupyter Notebook. The address bar shows the URL: `https://ada7.tamu.edu:8443/node/nxt1611/27531/notebooks/Jupyter-Notebook/Fall_2017_Introduction_to_Python.ipynb`. The notebook title is "Fall_2017_Introduction_to_Python" and it shows the last checkpoint was on 09/26/2017. The interface includes a menu bar (File, Edit, View, Insert, Cell, Kernel, Widgets, Help) and a toolbar with icons for file operations and execution. The main content area displays a slide titled "Variables".

Variables

A variable x is an object in memory: integer, string, etc.

- A variable x has a name, e.g., x .
- A variable x is a reference to a memory location where an object is stored.
- A variable x has a value, i.e., the object stored in the memory location referred by x .
- A variable x has an type: integer, string (object type)



Example: variable balance

- Variable Name: balance
- Memory/Location Reference: the box (memory) where the money (object) is stored