**Python Python**

**2019 A1 2019 A1**

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Jupyter Notebook / G-Suite

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Python

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Python

Python

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Jupyter ITC-LMS

**ITC-LMS**

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Python

Jupyter

https://sites.google.com/view/ut-python (https://sites.google.com/view/ut-python)

intro2python.pdf ECCS G Suite

Gmail ECCS

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ドライブを検索

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マイドライブ

ファイル

前

共有アイテム

最近使用したアイテム

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1-3.jpynb

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exercise.

○プレビュー

アプリで開く

共有可能なリンクを取得

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共有ファイルや重要なイベントの通知をパソコンで受け取りオンにする」

**Jupyter Notebook Jupyter Notebook**

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Widgets

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New Notebook Open...

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Save and Checkpoint

**on thonプログラミング入門 第3回**

Revert to Checkpoint 萬造のうち条件分岐について説明します

Print Preview Download as

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Trust Notebook

**・デントによる構文** 分岐の前に、Python のインデント(行頭の空白、字下げ)について説明します。 Python のインデントは実行文をグル こまとめる機能をもちます。

Close and Halt

実行文はインデントレベル(深さ)の違いによって異なるグループとして扱われます。 細かく言えば、インデントレベルが 戻る(浅くなる)まで実行文は同じグループに属し、レベルが深くなると実行文はもとのグループに加え、別のグループに 属するものとして扱われます。

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**インデントによる構文(続き)** 具体例として、第1回で定義した関数 bmax を使って説明します:

In [ ]:

Slide Type

def bmax(a,b):

if a >b:

**return a** else:

return b

print("Hello World")

https://sites.google.com/view/ut-python/resource/%E5%8B%95%E7%94%BB (https://sites.google.com/view/ut-python/resource/%E5%8B%95%E7%94%BB)

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Python

**成績評価方法**

以下の内容で評価します

・ 各回の予習課題の提出状況と結果 ・ 各回の本課題の提出状況と結果 ・ ミニプロジェクトのレポート

不正行為に対しては厳正に対処します

ITC-LMS

- Masami Hagiya <hagiya@is.s.u-tokyo.ac.jp>

Jupyter

Python (https://docs.python.org/ja/3/tutorial/) Python (https://docs.python.org/ja/3/) Allen B. Downey( ) Think Python:How To Think Like a Computer Scient (https://greenteapress.com/wp/think-python-2e/)

( ) Think Python: ( 2 ) (http://www.cauldron.sakura.ne.jp/thinkpython/thinkpython/Thin Introduction to Computer Science and Programming in Python (MIT) (https://ocw.mit.edu/courses/electrical-engineering-and-computer-science introduction-to-computer-science-and-programming-in-python-fall-2016/ John V. Guttag ( ), ( ) Python

2 4764905183 Bill Lubanovic ( ), ( ), ( ) Python 3 4873117380 Online Python Tutor (http://pythontutor.com/)

Python

**Python Python**

The Zen of Python Python

**Anaconda Anaconda / / Jupyter Jupyter Notebook Notebook**

Anacondahttps://anaconda.org/ (https://anaconda.org/)

Python

Jupyter Notebook ECCS Python2 Python3 Python3 Jupyter Notebook

http://jupyter.org/ (http://jupyter.org/) Python

ECCS Anaconda Navigator

**Python Python**PC Windows Anconda PC Anaconda

**Python Python Windows Windows**

PC Windows 10, you Anconda

1.

Anaconda (https://www.anaconda.com/distribution/#windows)

Windows Python 3.7 version 64-Bit Graphical Installer (Anaconda3-2018.12-Windows-x86\_64.exe)

2. License Agreement [I agree] 3. Install for [Just me] 4. C:\Users\you\Anaconda3

[Next] 5. Advanced Options 2 Add Anaconda to my PATH

environment variable Register Anaconda as my default Python 3.7

[install] Python Jupyter Notebook

Anaconda Commad Prompt

6. Windows Anaconda3 (64bit)

Jupyter Notebook Jupyter Notebook Anaconda Navigator

**Python Python Mac Mac**

PC MacOSX Anconda

1.

Anaconda (https://www.anaconda.com/distribution/#macos)

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4. "Anaconda Navigator"

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anaconda.com

Anaconda Python/R Distribution - Anaconda

1 Windows

macos |

Linux

**Anaconda 2018**.12 for macOS Installer

Python 3.7 version

**Python 2.7 version**

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PC Anaconda

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(https://colab.research.google.com/notebooks/welcome.ipynb) 2. Jupyter .ipynb

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FEDE- / Python 2 のノートブックを新規作成

Python 30/-772

**Welcome**

**me to Colaboratory!** 13790/-375<...

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vory is a Google research project created to help disseminate machine learning education and research. It's a Jupyter Local rumi HO*/*=179 ...

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k environment that requires no setup to use and runs entirely in the cloud. Python 3

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wtory notebooks are stored in Google Drive and can be shared just as you would with Google Docs or Sheets.

Hory is free to use. TensorFle

u information, see our FAQ.

Visualizat

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**runtime support**

Forms

GitHub にコピーを保存...

o supports connecting to a Jupyter runtime on your local machine. For more information, see our documentation

Exam

For more

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**n 3**

vory supports both Python2 and Python3 for code execution. hen creating a new notebook, you'll have the choice between Python 2 and Python 3. yu can also change the language associated with a notebook this information will be written into the .ipynb file liself. id thus will be preserved for future sessions.

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py #

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illo, Colaboratory from Python 3! XCW+P

**- TensorFlow execution**

Colaboratory allows you to execute TensorFlow code in your browser with a single click. The example below adds two matrices.

[i. 1. 1.1. 11. 2. 3.1. 2. 3. 4.]

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import tensorflow is tf import numpy as np with tf.Sossion():

input1 = tf.constant(1.0, shape=[2.31 input2 = tf.constantino.reshape(np.arange(1.0.7.0.dtype=np.float32). (2.3))) output-tf.add(Input1, Input2) result = output.eval()

result

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array([[ 2., 3., 4.].

[ 5., 6., 7.]].dtype=float32)

**- Visualization**

Colaboratory includes widely used libraries like matplotlib, simplifying visualization,

**Python Python**

1. MacOS 2. Anaconda3 3. Anaconda-Navigator 4. Jupyter Notebook

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**Anaconda Navigator**

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**Help**

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At Home

Applications on

root

Channels

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Environments

jupyler

Projects (beta)

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jupyter

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notebook

atconsole

Spyder

Learning

Community

Web-based, interactive computing notebook environment. Edit and run human-readable

docs while describing the data analysis.

PyQt GUI that supports inline figures, proper multiline editing with syntax highlighting.

graphical calltips, and more.

Scientific Python Development EnviRonment. Powerful Python DE with

advanced editing, interactive testing, debugging and introspection features

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glueviz

orange 3

rstudio

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0.10.4 Multidimensional data visualization across files. Explore relationships within and among

related datasets.

Component based data mining framework.

Data visualization and data analysis for novice and expert. Interactive workflows

with a large toolbox.

Aset of integrated tools designed to help you be more productive with R. Includes R

essentials and notebooks.

Install

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Select items to perform actions on them.

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Home

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