Jupyter Notebook 실습자료

Jupyter Tutorial

1. What is Jupyter Notebook?

The Jupyter Notebook is an open-source web application that allows you to create and share documents that contain live code, equations. Visualizations.

2. Live Code Example

3. Equation

4. Visualization

4.1 image

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4.3 table

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5. Performance check

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2. Live Code Example

```
3+3
```

```
# adding two parameters
def add(a,b):
    return a+b
add(3,5)
```

3. Equation

```
#sqrt(x^2+y^2+z^2)
```

This expression $₩sqrt{3x-1}+(1+x)^2$ is an example of a TeX inline equation in a [Markdown-formatted](https://daringfireball.net/projects/markdown/) sentence.

[More example click here](https://jupyter-notebook.readthedocs.io/en/stable/examples/Notebook/Typesetting%20Equations.html)

4. Visualization

4.1 image

from IPython.display import Image

Image("https://www.snu.ac.kr/webdata/uploads/kor/image/2019/12/about-symbol-bi_lg.png", width=200, height=50)

4.2 video

from IPython.display import YouTubeVideo

YouTubeVideo("TDhkrvATsBA")

4.3 table

4.4 chart

import matplotlib.pyplot as plt

plt.plot([1,2,3,4])

plt.ylabel('result')

plt.show()

5. Performance check

%timeit 3+3

%timeit add(3,3)

%%timeit

a = [1,2,3]

a = [x+1 for x in a]

%%timeit

b = [1,2,3]

```
for i in range(len(b)):
    b[i] = b[i] + 1
```