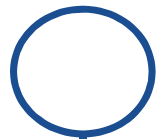




## AGENDA



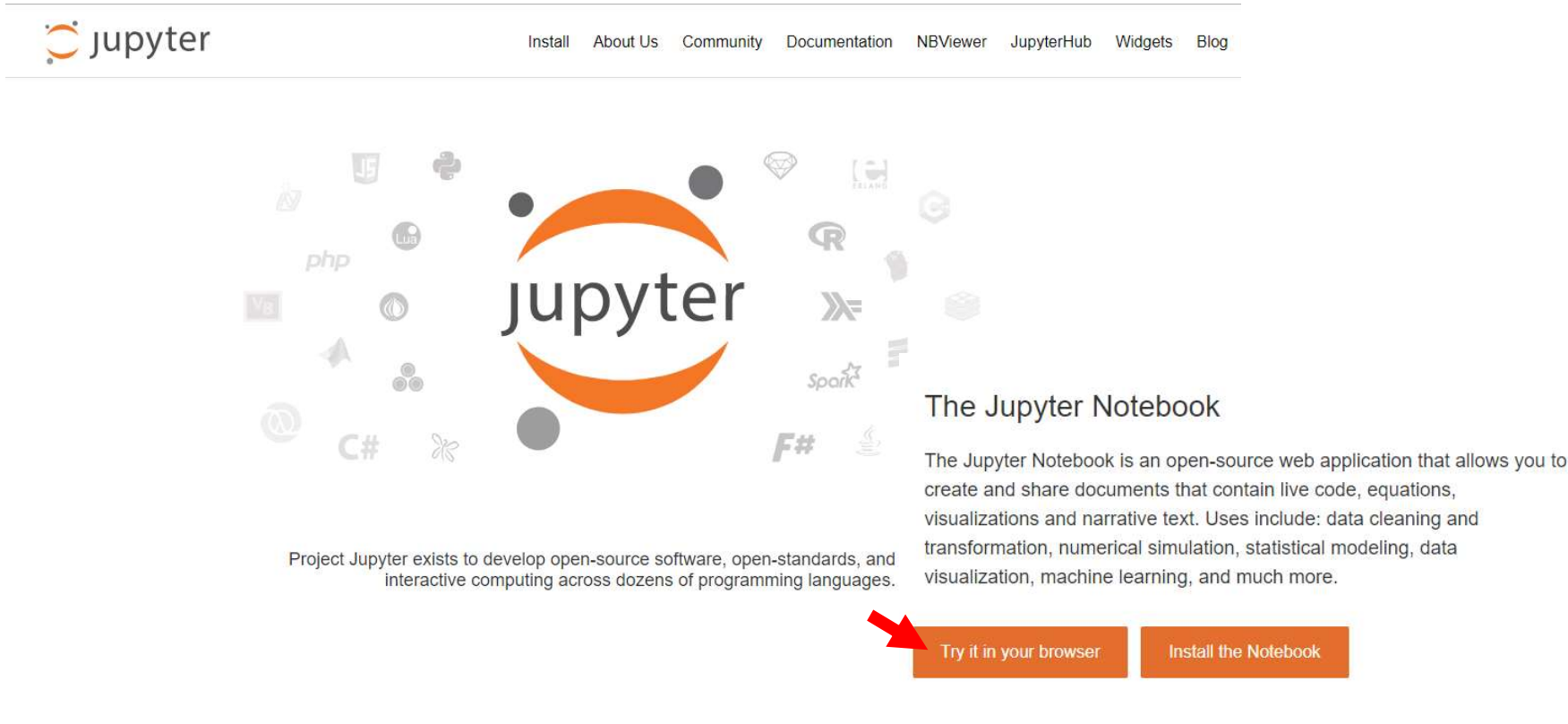
# Lab 04

Jupyter



**Créer des notebooks sur le cloud libre de [jupyter.org](https://jupyter.org)**

- Se connecter à <http://jupyter.org/>
- Lance un



Project Jupyter exists to develop open-source software, open-standards, and interactive computing across dozens of programming languages.

### The 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 and narrative text. Uses include: data cleaning and transformation, numerical simulation, statistical modeling, data visualization, machine learning, and much more.

[Try it in your browser](#) [Install the Notebook](#)



**Créer les mêmes notebooks créés sur le cloud IBM**

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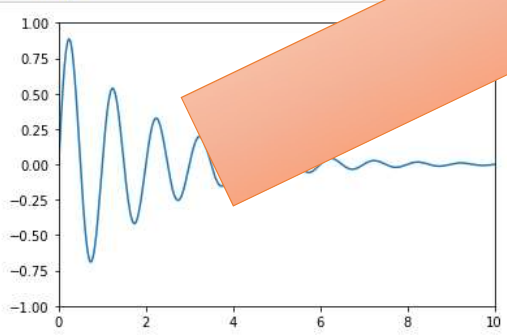
File Edit View Insert Cell Kernel Help

Insert project token Trusted | Python 3.5 with Spark

```
In [2]: import numpy as np
import matplotlib.pyplot as plt

In [3]: x = np.arange(0, 10, 0.005)
y = np.exp(-x/2.) * np.sin(2*np.pi*x)

In [6]: fig = plt.figure()
ax = fig.add_subplot(111)
ax.plot(x, y)
ax.set_xlim(0, 10)
ax.set_ylim(-1, 1)
plt.show()
```



In [ ]:



Rappel

**Editer le notebook à gauche avec le code ci-dessous**

```
import numpy as np
import matplotlib.pyplot as plt

x = np.arange(0, 10, 0.005)
y = np.exp(-x/2.) * np.sin(2*np.pi*x)

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ax.plot(x, y)
ax.set_xlim(0, 10)
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```

**Enregistrer le notebook**

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Format Markdown

### 0. Python ?

Python is a dynamic, interpreted (bytecode-compiled) language.

There are no type declarations of variables, parameters, functions, or methods in source code.

This makes the code short and flexible, and you lose the compile-time type checking. Python checks the types of all values at runtime and flags code that does not make sense as it runs.

Thanks to its large community supporting powerful yet simple data manipulation libraries, Python is a language of choice for any Data Scientist willing to code !

### 1. First Step

DSX provides you an already configured environment ready to use in this notebook without any further action !

The current document is a source [Jupyter](#) notebook. A notebook consists of cells that could be either **Code** cells or **Markdown** cells. Markdown is a lightweight markup language for formatting text. You can double click this Markdown cell to see the `code`. Then, press **CTRL + ENTER**, or press the **Run Cell** button in the top bar. [Here](#) is a simple Markdown cheat sheet to introduce you to this markup language. The other cell format that is available to you is the **Code** format. The code in the kernel language you chose. The kernel language is selected at notebook creation and can be later modified in the `Kernel1 -> Change kernel` menu. You can insert new cells anywhere in the notebook by pressing the **+** button in the top bar.

```
In [2]: print("Hello, world!")
```

Hello, world!

To get yourself started, you can type the following stack of instructions and see for yourself how python behaves :

```
In [3]: a = 3
b = 2*a
type(b)
```

Out[3]: int

CoursPython.ipynb 5. Machine Lear...ipynb 4. A short introd...ipynb Tout afficher

Rappel