

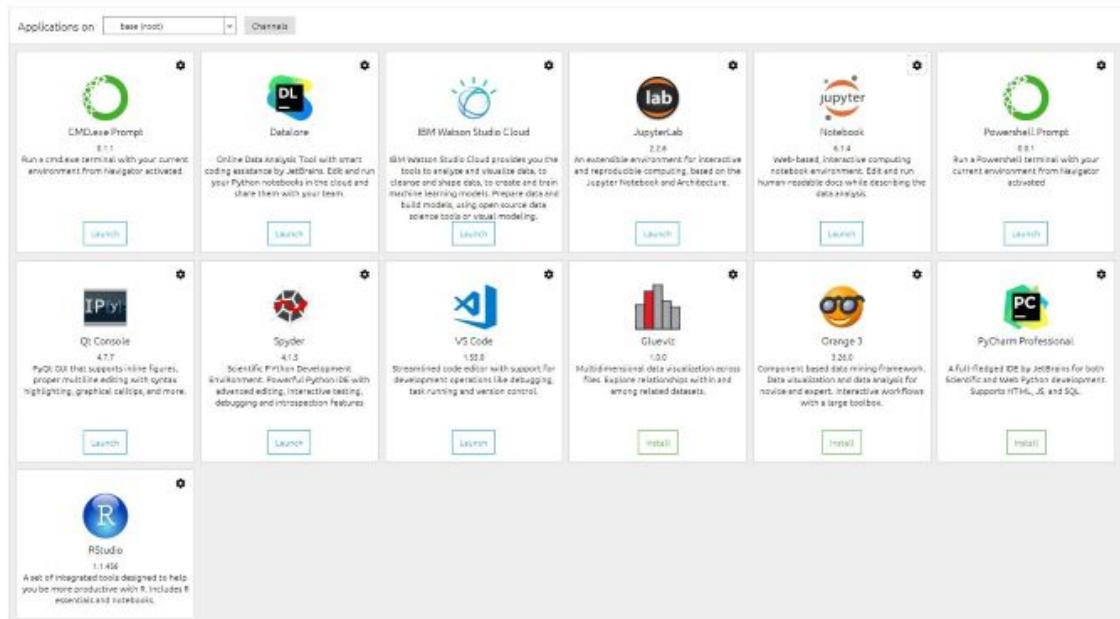
Lliurament tasca 1 - Jupyter Notebook i Markdown

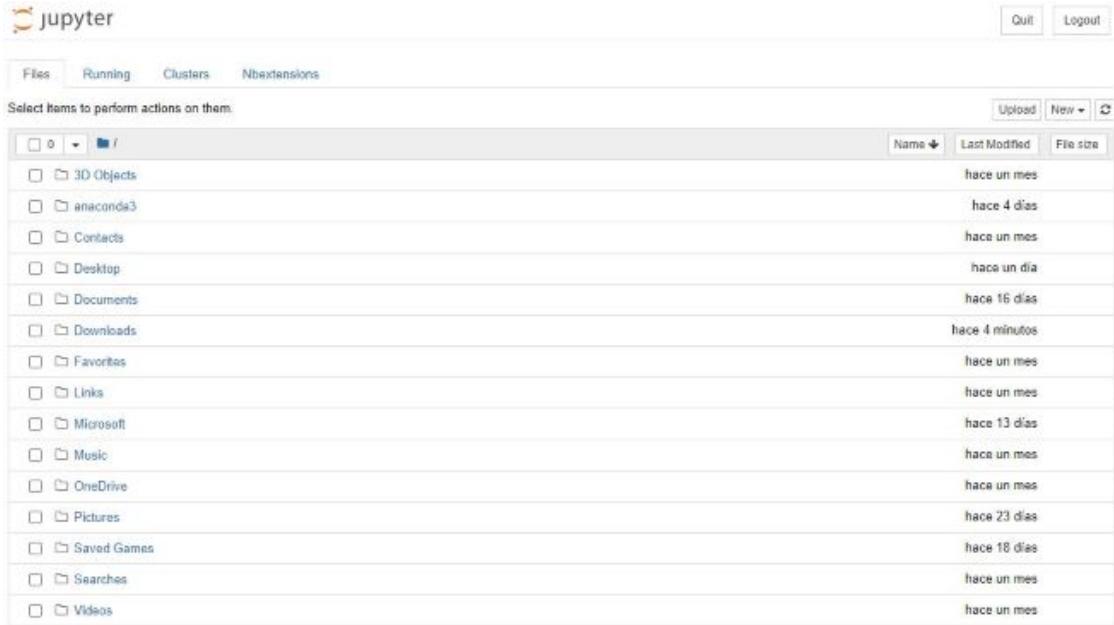
April 11, 2021

1 NIVELL 1

1.1 Exercici 1

Instal·la el programa Anaconda amb Python 3, i Jupyter Notebook.





1.2 Exercici 2

Utilitzant Jupyter Notebook executa alguns càlculs senzills, a la vegada que et familiaritzes amb el llenguatge Markdown.

1.3 Escrivint codi

SCRIPT 1

```
[1]: nom = input('Si us plau, introduceix el teu nom: ')
      print(f'Bon dia {nom}. Benvingut/da.')
```

Si us plau, introduceix el teu nom: Adrián
Bon dia Adrián. Benvingut/da.

SCRIPT 2

```
[2]: meses = ['Gener', 'Febrer', 'Març', 'Abril', 'Juny']

for i,j in enumerate(meses) :
    print(f'{j} es troba a la posició {i} de la llista.')
```

Gener es troba a la posició 0 de la llista.
Febrer es troba a la posició 1 de la llista.
Març es troba a la posició 2 de la llista.
Abril es troba a la posició 3 de la llista.
Juny es troba a la posició 4 de la llista.

1.4 Exercici 3

Prova de crear títols, llistes, canviar l'estil de la lletra o afegir imatges dins del Notebook.

Presentació

Bon dia

Aquesta es la meva primera entrega pel programa IT academy.

Amb aquesta entrega, mostraré les meves nocions de **Markdown amb Jupyter Notebook**.

Des de fa temps, he estat utilitzat jupyter notebook. Per poder ser eficient, trobo molt important treballar amb shortcuts. Els podeu trobar a:



A Internet, hi ha infinitos recursos d'informació sobre Markdown de Jupyter Notebook. A continuació, citaré algunes pàgines web on podeu trobar informació:

- <https://jupyter-notebook.readthedocs.io/en/latest/examples/Notebook/Working%20With%20Markdown%20In%20Jupyter%20Notebooks.html>
- <https://www.datacamp.com/community/tutorials/markdown-in-jupyter-notebook>
- <https://jdvelasq.github.io/courses/notebooks/jupyter/01-uso-de-markdown-en-jupyter.html>



2 Nivell 1

2.1 Exercici 1

Exporta el Notebook com a pdf i com a html.

- **PDF**

Al intentar exportar el Notebook com a pdf, em surt un error.

500 : Internal Server Error

The error was:

```
nbconvert failed: xelatex not found on PATH, if you have not installed xelatex you may need to do so. Find further instructions at https://nbconvert.readthedocs.io/en/latest/install.html#installing-tex.
```

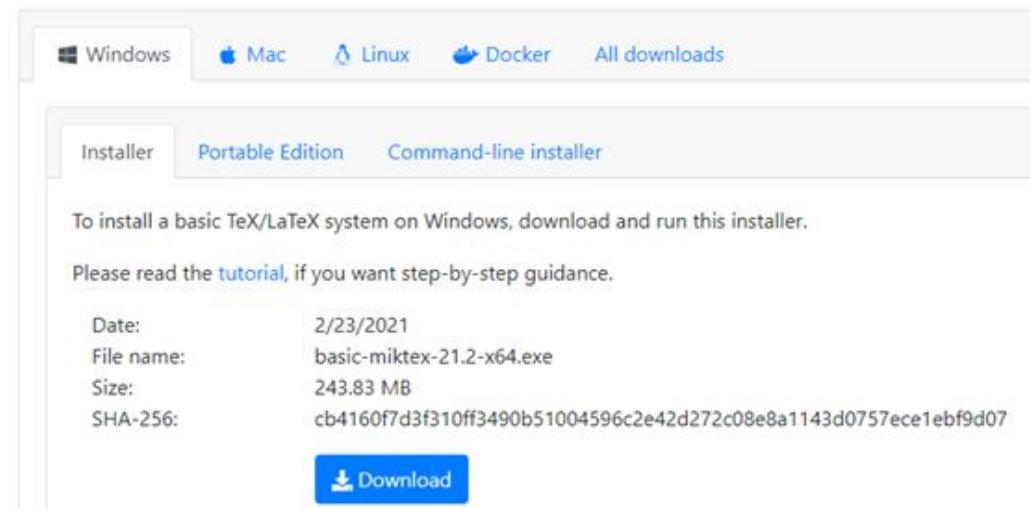
Per exportar els notebooks a pdf, previament s'ha de instalar latex a windows:

Getting MiKTeX

MiKTeX is available for selected operating systems.

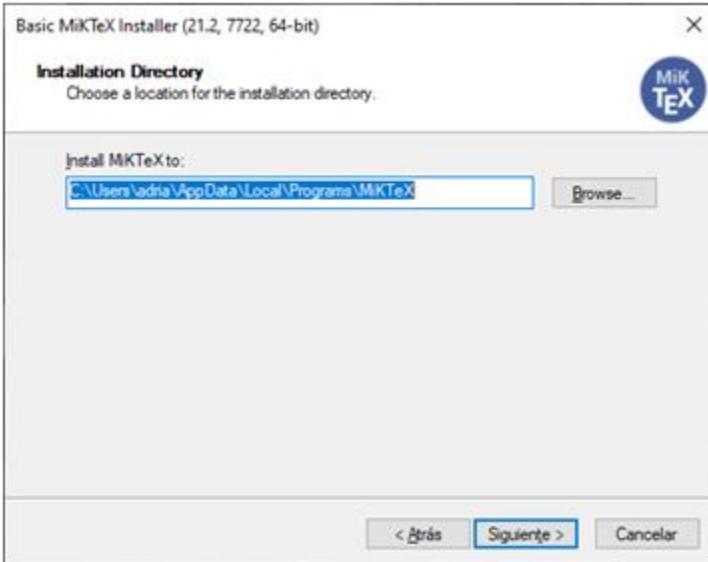
Please check the [prerequisites](#) in order to find out whether your system is supported.

If your system is not (yet) supported: it is not too difficult to [build MiKTeX](#).



The screenshot shows the MiKTeX download page. At the top, there are tabs for Windows, Mac, Linux, Docker, and All downloads. The Windows tab is selected. Below the tabs, there are three buttons: Installer, Portable Edition, and Command-line installer. The Installer button is selected. A text box below says: "To install a basic TeX/LaTeX system on Windows, download and run this installer." It also says: "Please read the [tutorial](#), if you want step-by-step guidance." Below this, there is a table with file details: Date: 2/23/2021, File name: basic-miktex-21.2-x64.exe, Size: 243.83 MB, SHA-256: cb4160f7d3f310ff3490b51004596c2e42d272c08e8a1143d0757ece1ebf9d07. At the bottom is a blue "Download" button with a downward arrow icon.





- **HTML**

Per poder exportar l'arxiu en format html, no he tingut cap problema. Només hem de fer click a **File -> Download as -> HTML**.

Podeu trobar l'arxiu en format PDF i HTML al meu [Github](#).

3 Nivell 3

3.1 Exercici 1

Instal·la Nbextensions al Notebook de Jupyter.

- Instal·la **nbextensions** a la consola d'anaconda (anaconda prompt).

Per instal·lar-ho, necessito introduir els següents scripts:

Anaconda Prompt (anaconda3)

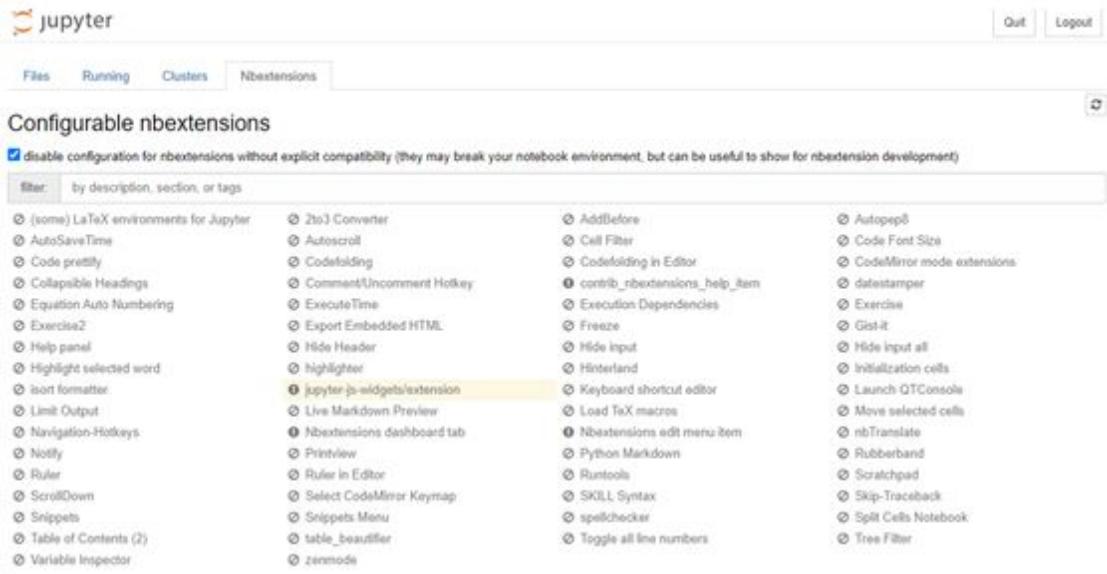
```
(base) C:\Users\adria>pip install jupyter_contrib_nbextensions
```

```
(base) C:\Users\adria>pip install jupyter_contrib_nbextensions
Requirement already satisfied: jupyter_contrib_nbextensions in c:\users\adria\anaconda3\lib\site-packages (0.5.1)
Requirement already satisfied: jupyter-nbextensions-configurator>=0.4.0 in c:\users\adria\anaconda3\lib\site-packages (from jupyter_contrib_nbextensions) (0.4.1)
Requirement already satisfied: notebook>=4.0 in c:\users\adria\anaconda3\lib\site-packages (from jupyter_contrib_nbextensions) (6.1.4)
Requirement already satisfied: pyyaml in c:\users\adria\anaconda3\lib\site-packages (from jupyter_contrib_nbextensions) (5.3.1)
Requirement already satisfied: jupyter-latex-envs>=1.3.8 in c:\users\adria\anaconda3\lib\site-packages (from jupyter_contrib_nbextensions) (1.4.6)
Requirement already satisfied: ipython-genutils in c:\users\adria\anaconda3\lib\site-packages (from jupyter_contrib_nbextensions) (0.2.0)
Requirement already satisfied: nbconvert>=4.2 in c:\users\adria\anaconda3\lib\site-packages (from jupyter_contrib_nbextensions) (6.0.7)
Requirement already satisfied: tornado in c:\users\adria\anaconda3\lib\site-packages (from jupyter_contrib_nbextensions) (6.0.4)
Requirement already satisfied: traitlets>=4.1 in c:\users\adria\anaconda3\lib\site-packages (from jupyter_contrib_nbextensions) (5.0.5)
Requirement already satisfied: lxml in c:\users\adria\anaconda3\lib\site-packages (from jupyter_contrib_nbextensions) (4.6.1)
Requirement already satisfied: jupyter-contrib-core>=0.3.3 in c:\users\adria\anaconda3\lib\site-packages (from jupyter_contrib_nbextensions) (0.3.3)
Requirement already satisfied: jupyter-core in c:\users\adria\anaconda3\lib\site-packages (from jupyter_contrib_nbextensions) (4.6.3)
Requirement already satisfied: prometheus-client in c:\users\adria\anaconda3\lib\site-packages (from notebook>=4.0->jupyter_contrib_nbextensions) (0.8.0)
Requirement already satisfied: jupyter-client>=5.3.4 in c:\users\adria\anaconda3\lib\site-packages (from notebook>=4.0->
```

```
(base) C:\Users\adria>jupyter contrib nbextension install --user
```

```
(base) C:\Users\adria>jupyter nbextensions_configurator enable --user
```

Una vegada introduits aquests scripts, ja ha acabat l'instalació de nbextensions.



Per provar que funciona correctament, instal·lo l'extensió Executetime. Aquesta extensió ens permet saber el temps que triga a executar un script.

The screenshot shows the Jupyter Notebook interface. At the top, there are tabs for 'Files', 'Running', 'Clusters', and 'Nbextensions'. The 'Nbextensions' tab is active. In the top right corner, there are 'Quit' and 'Logout' buttons. Below the tabs, there is a search bar with the placeholder 'filter: exec' and a checkbox labeled 'ExecuteTime' which is checked. Other checkboxes available are 'Execution Dependencies', 'Exercise', and 'Exercise2'. There is also a 'Freeze' checkbox. A 'Configurable nbextensions' section follows, containing a checkbox for 'disable configuration for nbextensions without explicit compatibility (they may break your notebook environment, but can be useful to show for nbextension development)'. Below this, there is a code cell with the following content:

```
section: notebook
require path: execute_time/ExecuteTime
compatibility: 4x,5x
```

With two buttons below it: 'Enable' (greyed out) and 'Disable' (blue). To the right of the code cell, there is an output cell showing the result of running the cell:

```
Last executed 2016-02-17 13:39:49 in 5ms
In [2]: random(0.5)
Last executed 2016-02-17 13:39:49 in 519ms
Out[2]: 'zyygaoxnhe'
```

Below the code cell, the text 'executed in 5ms, finished 11:41:02 2021-04-07' is displayed.

- Podem veure sota els scripts el temps que triguen a executar-se. Per tant, hem instal·lat nbextensions `mesos = ['Gener', 'Febrer', 'Març', 'Abril', 'Juny']`
`for i,j in enumerate(mesos) :`
 `print(f'{j} es troba a la posició {i} de la llista.')`