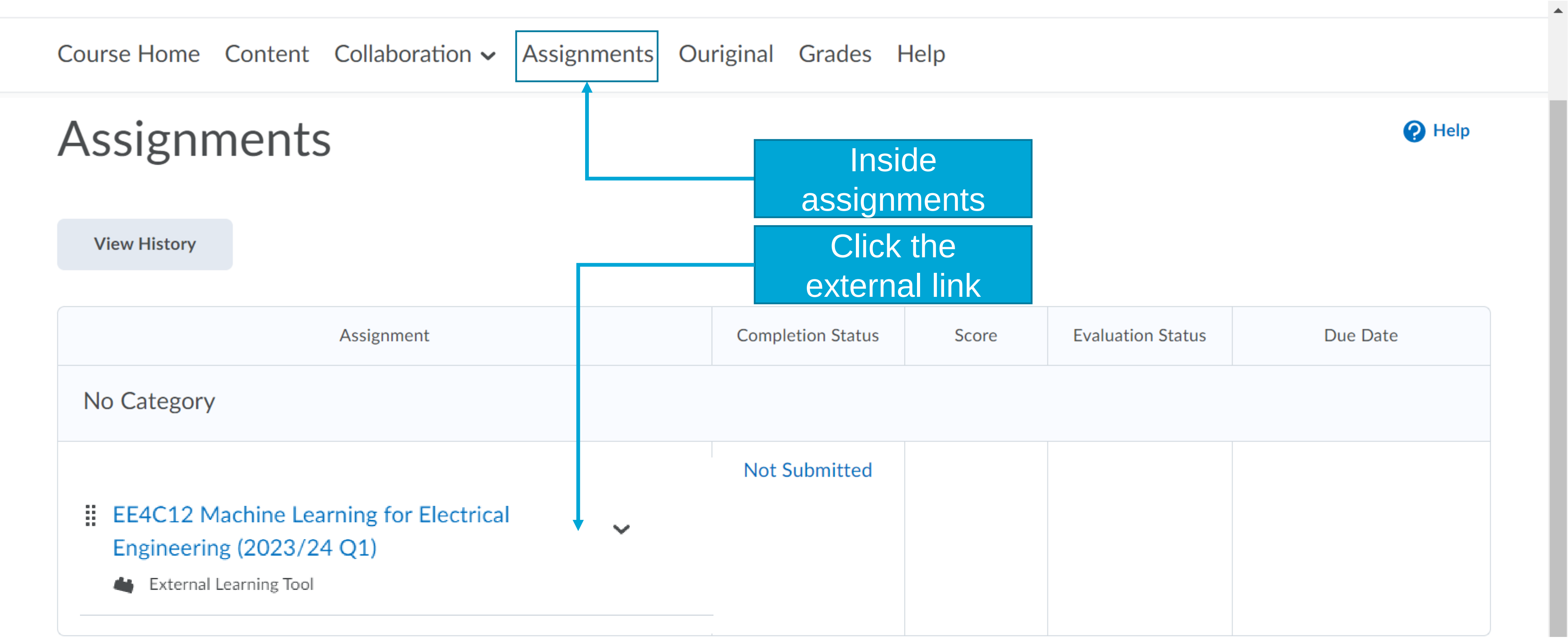
CodeLab Tutorial

Mert Karacelebi - 06.09.2023

TU Delft

Reach assignment from the Brightspace



Assignments

Inside assignments

Click the external link

Assignment	Completion Status	Score	Evaluation Status	Due Date
No Category				
EE4C12 Machine Learning for Electrical Engineering (2023/24 Q1) External Learning Tool	Not Submitted			

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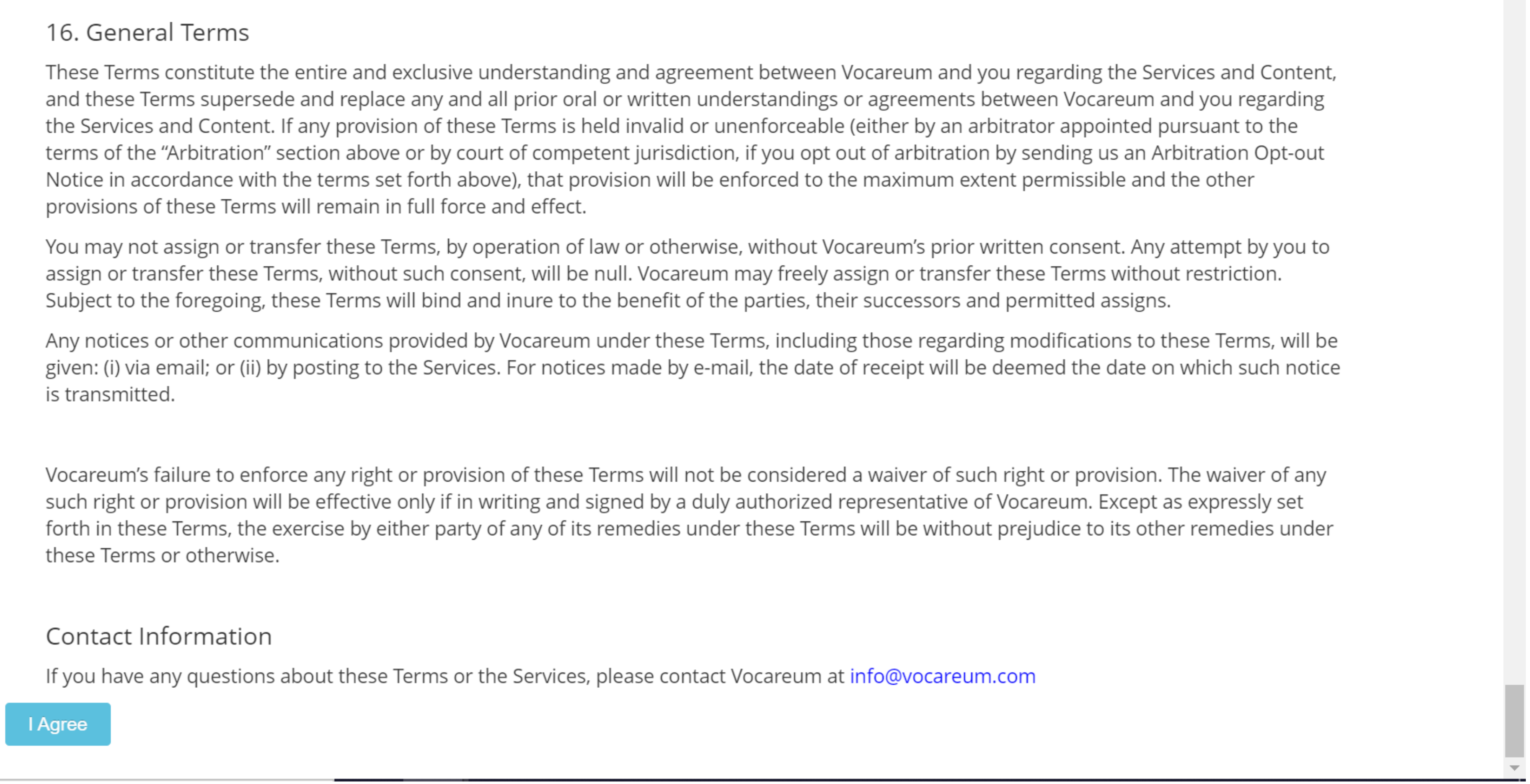
First time login – Accept terms and conditions



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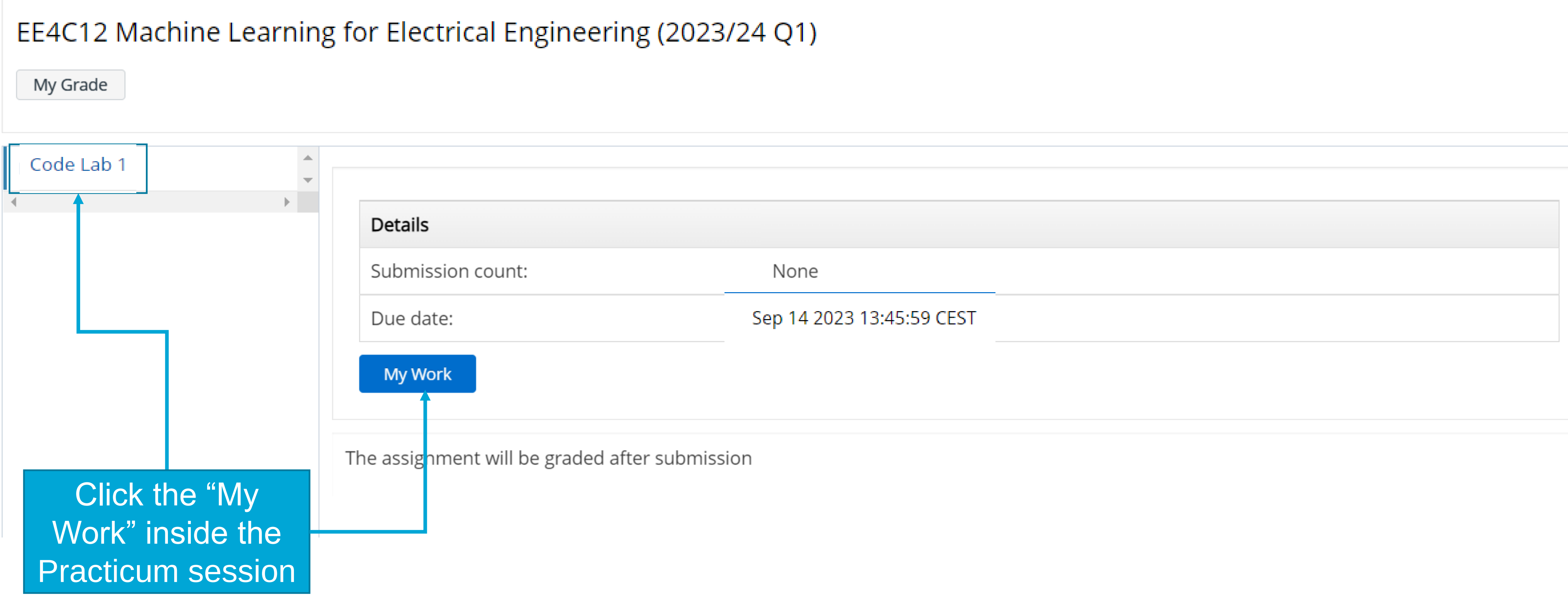
Vocareum Environment



EE4C12 Machine Learning for Electrical Engineering (2023/24 Q1)

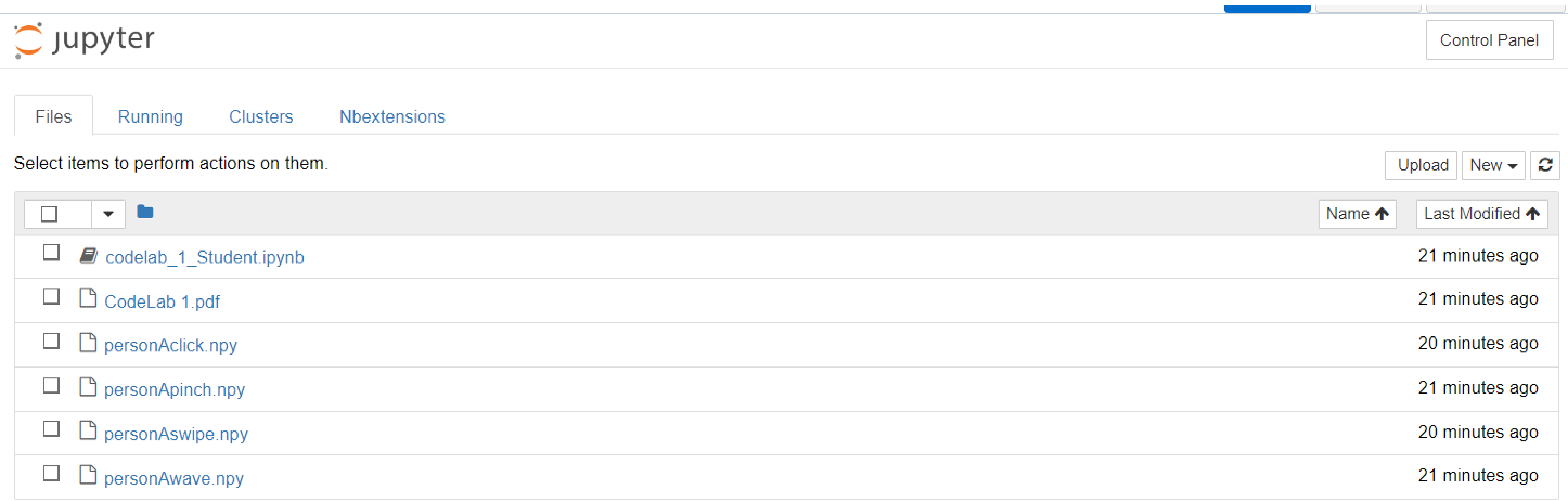
Details

Submission count:	None
Due date:	Sep 14 2023 13:45:59 CEST

The assignment will be graded after submission

Click the “My Work” inside the Practicum session

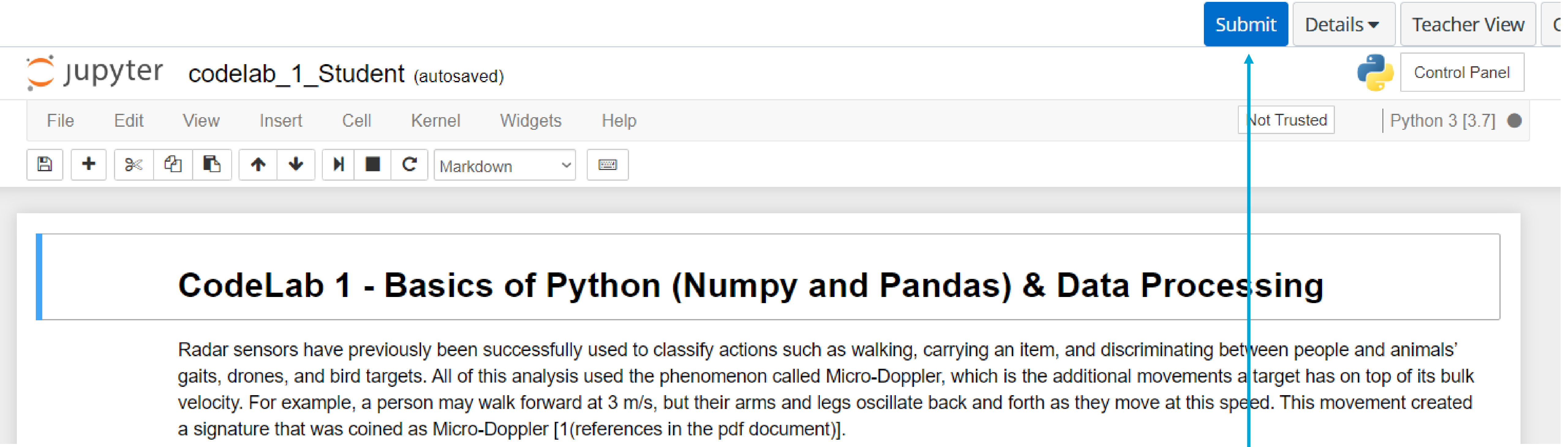
Jupyter environment – Open the notebook



Select items to perform actions on them.

	Name	Last Modified
□	codelab_1_Student.ipynb	21 minutes ago
□	CodeLab 1.pdf	21 minutes ago
□	personAclick.npy	20 minutes ago
□	personApinch.npy	21 minutes ago
□	personAswipe.npy	20 minutes ago
□	personAwave.npy	21 minutes ago

Jupyter environment – Submit your work



CodeLab 1 - Basics of Python (Numpy and Pandas) & Data Processing

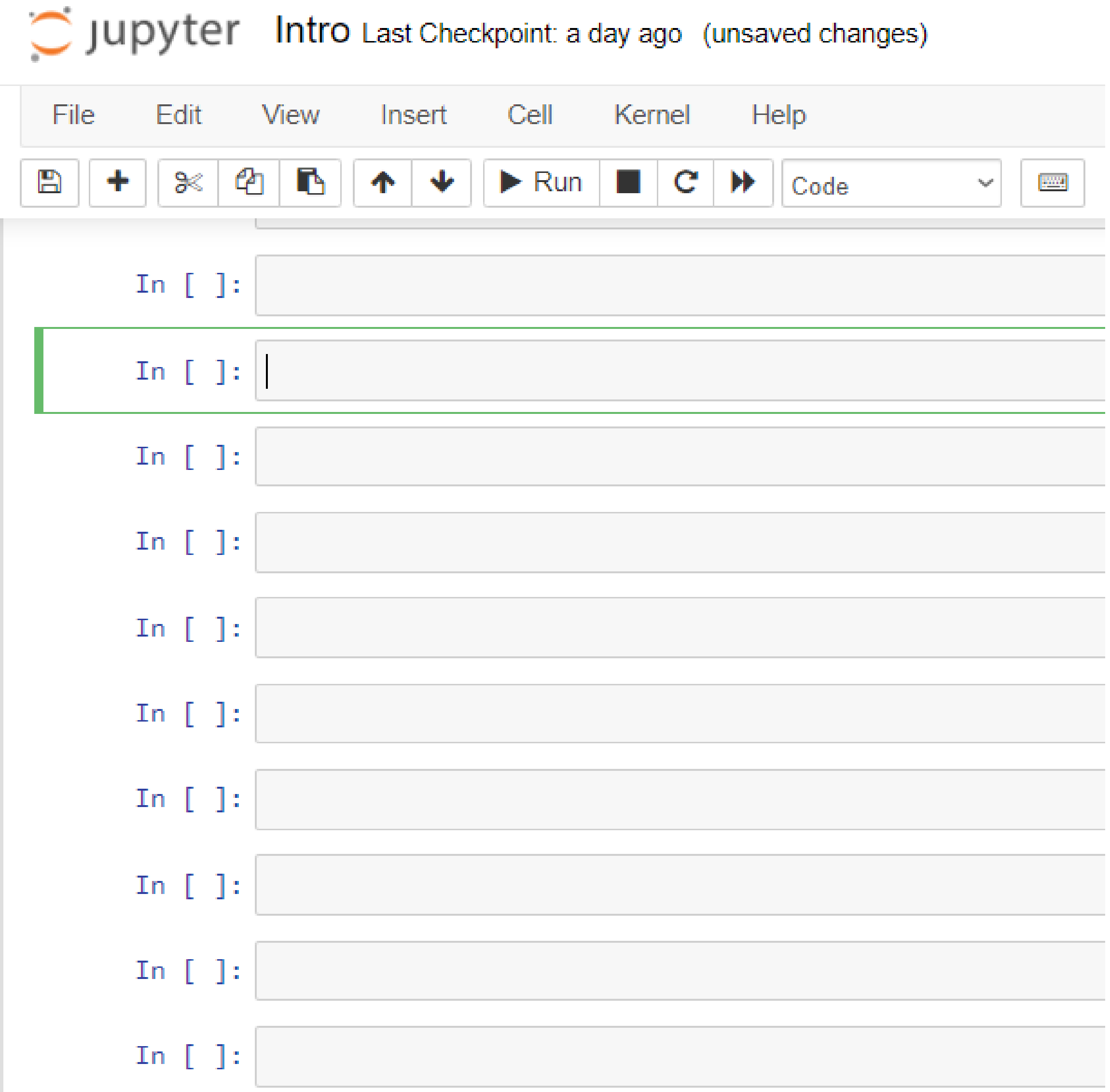
Radar sensors have previously been successfully used to classify actions such as walking, carrying an item, and discriminating between people and animals' gaits, drones, and bird targets. All of this analysis used the phenomenon called Micro-Doppler, which is the additional movements a target has on top of its bulk velocity. For example, a person may walk forward at 3 m/s, but their arms and legs oscillate back and forth as they move at this speed. This movement created a signature that was coined as Micro-Doppler [1(references in the pdf document)].

Please submit your work every time you want to close the notebook. The last submission before the deadline will be reviewed only.

Jupyter notebook environment

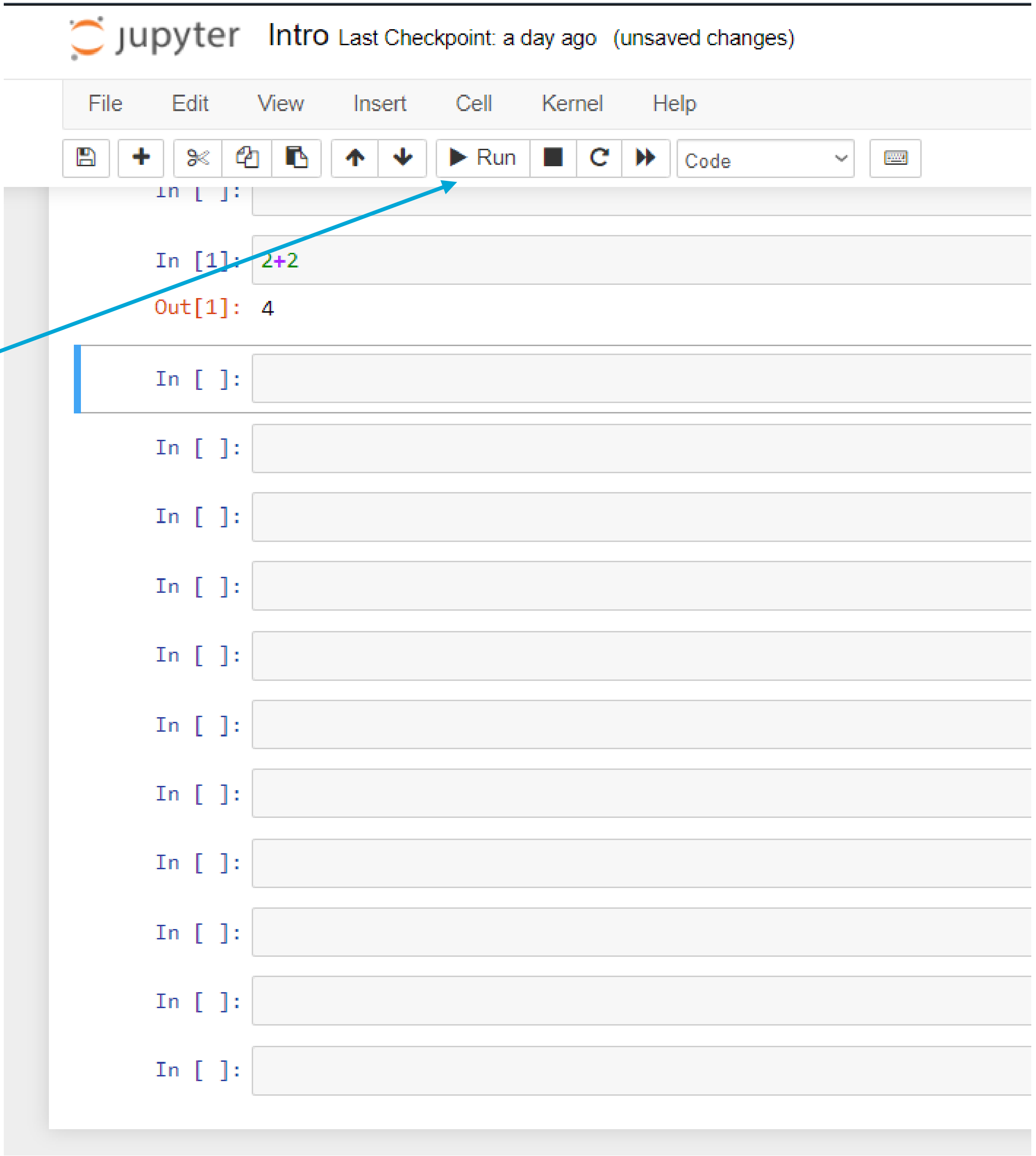
Jupyter notebook environment

- You will code the given tasks inside the cell blocks.



Jupyter notebook environment

- You will code the given tasks inside the cell blocks.
- Each cell block can be executed separately by using Run button above.
- Alternatively:
  - “Ctrl+Enter” runs the selected cell
  - “Shift+Enter” runs the selected cell and move to next one (if selected cell is the last, creates another one).



```
In [ ]:

In [1]: 2+2

Out[1]: 4

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]:
```

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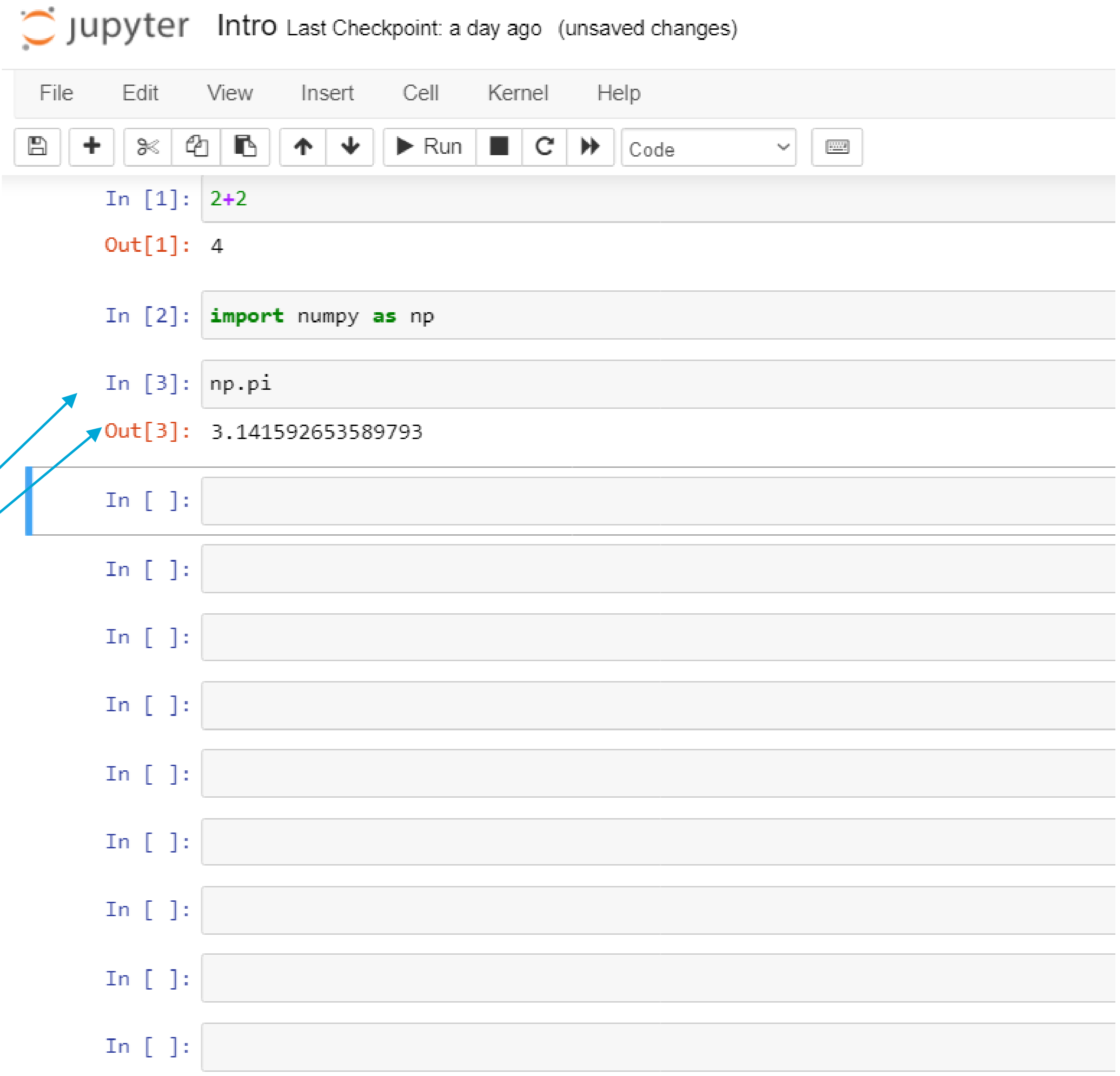
- The number on the left side of the cell indicates the order of execution for both input and output.



```
In [1]: 2+2
Out[1]: 4

In [2]: import numpy as np

In [3]: np.pi
Out[3]: 3.141592653589793

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]:
```

Jupyter notebook environment

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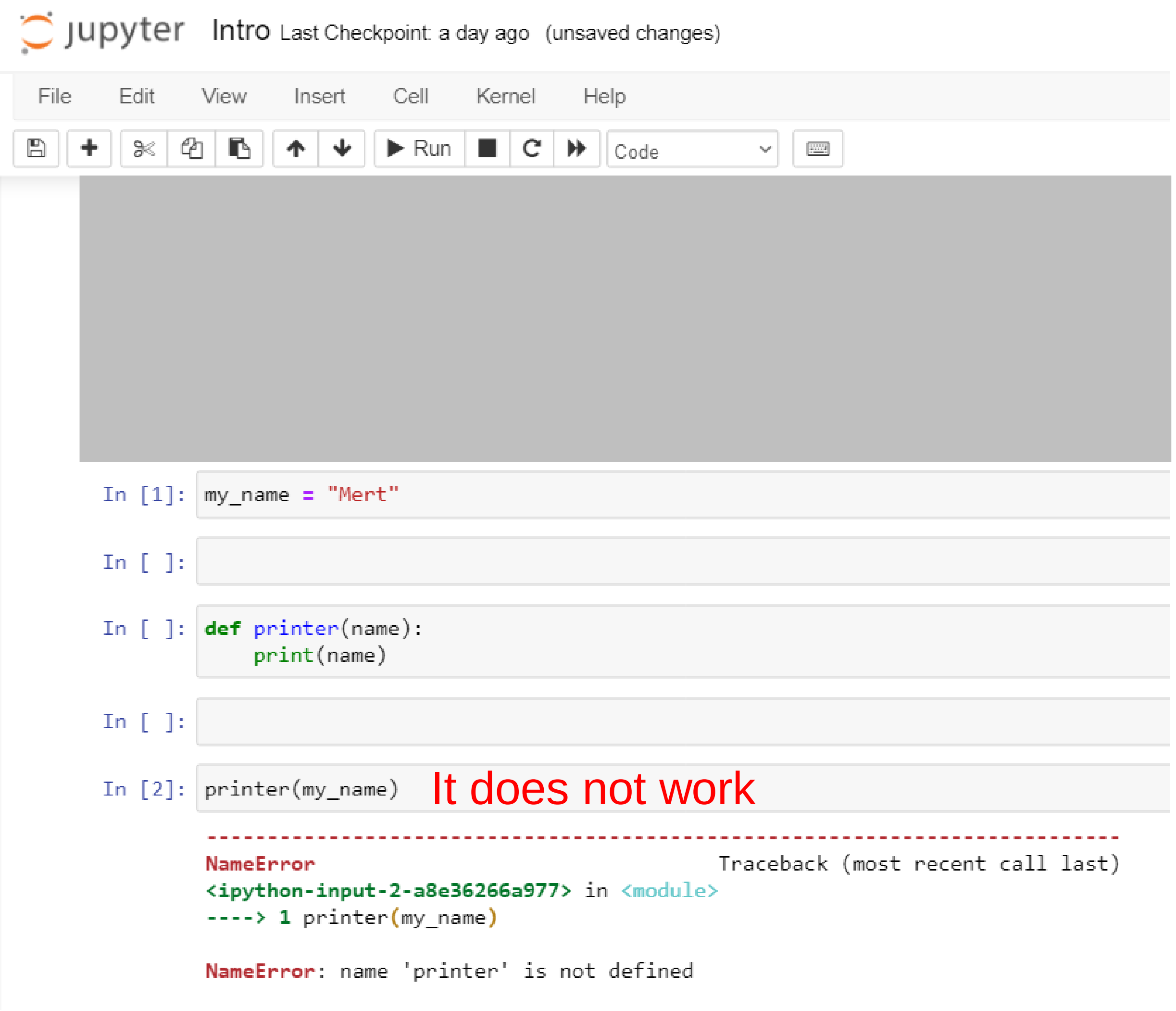
- The number on the left side of the cell indicates the order of execution for both input and output.
- Beware the order of cells are irrelevant but the execution order is important.



```
In [1]: my_name = "Mert"

In [ ]:

In [ ]: def printer(name):
            print(name)

In [ ]:

In [2]: printer(my_name)
```

It does not work

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-2-a8e36266a977> in <module>
----> 1 printer(my_name)

NameError: name 'printer' is not defined
```

Jupyter notebook environment

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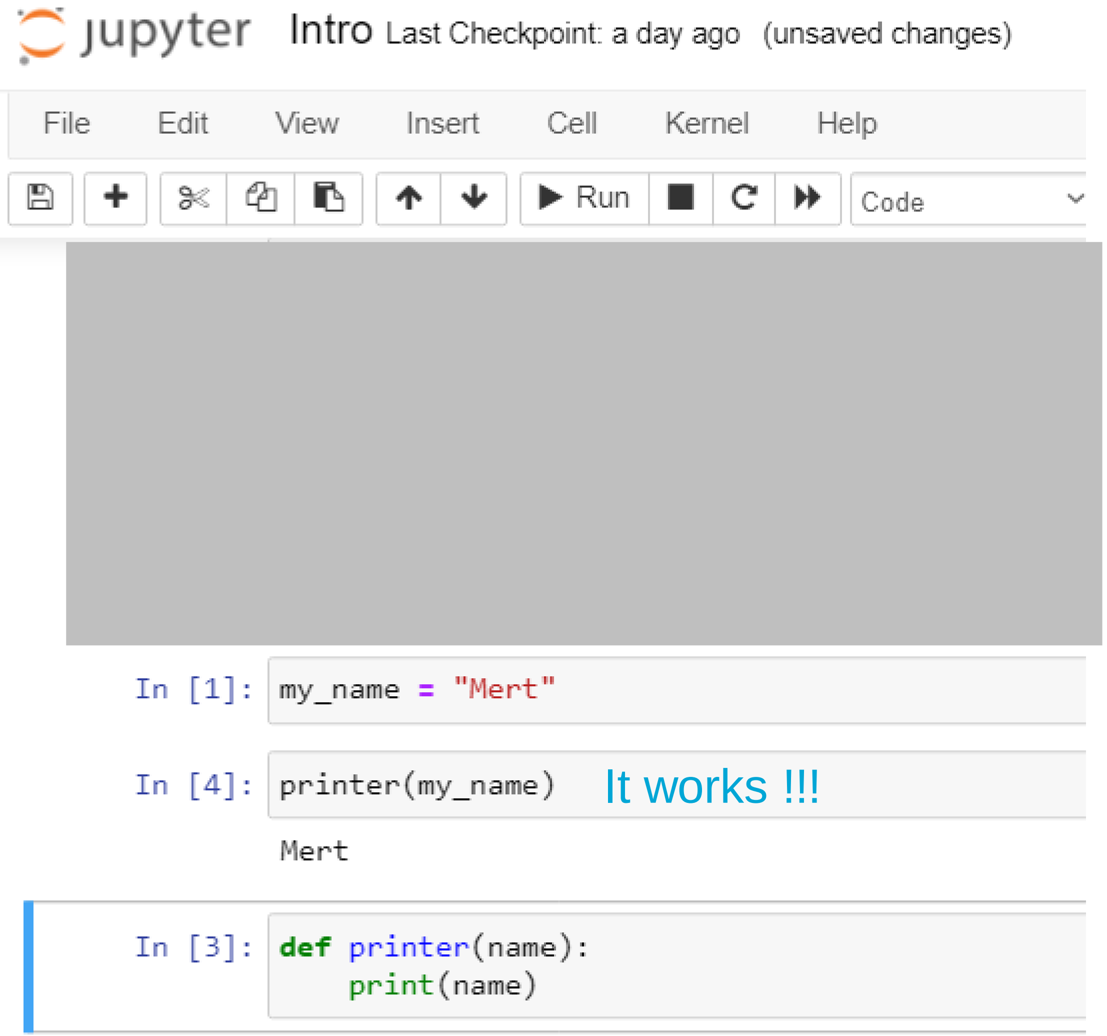
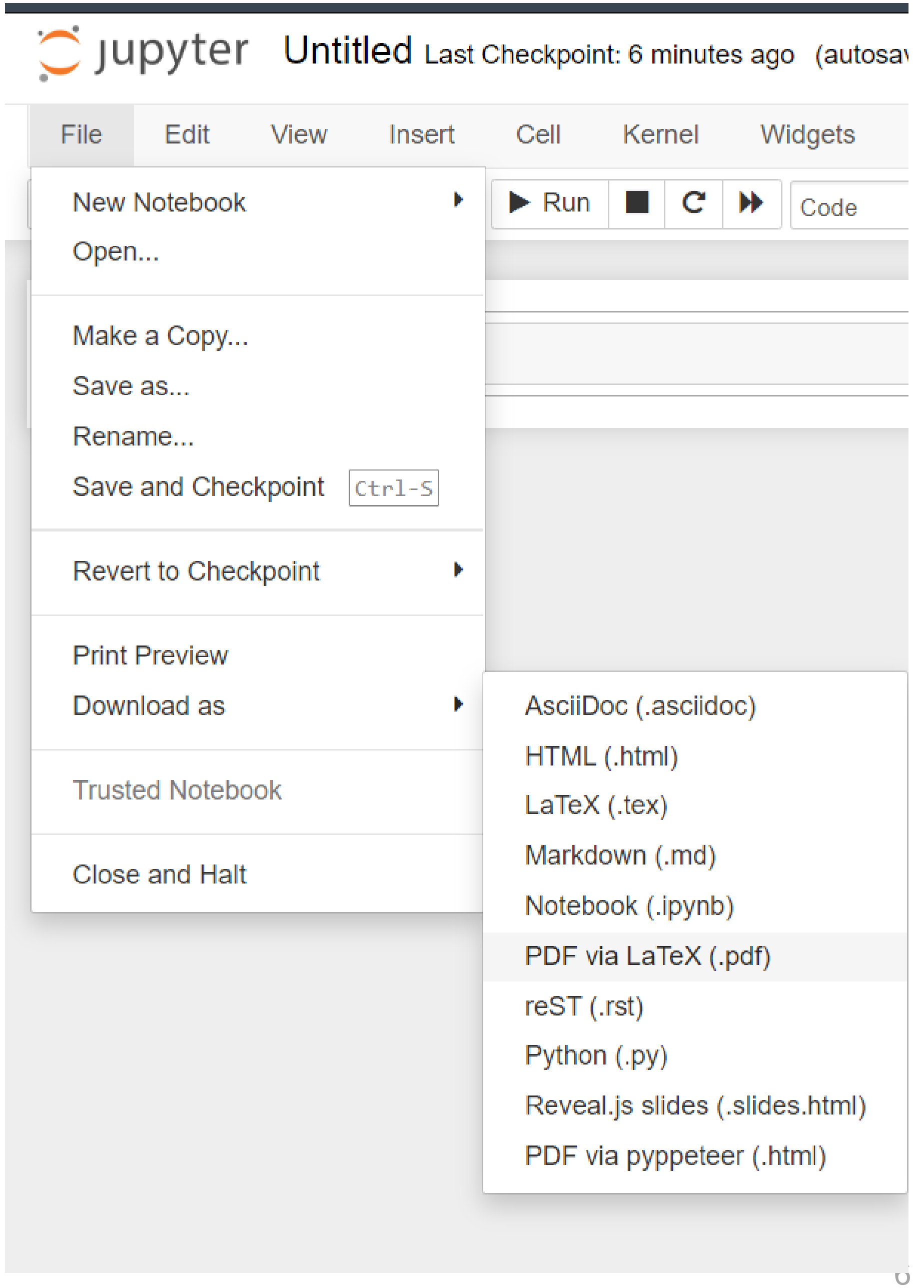


```
In [1]: my_name = "Mert"

In [4]: printer(my_name)
        Mert

In [3]: def printer(name):
            print(name)
```

It works !!!

Export results

- File
- Download as
- PDF
- Html
- Latex (then convert pdf)



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