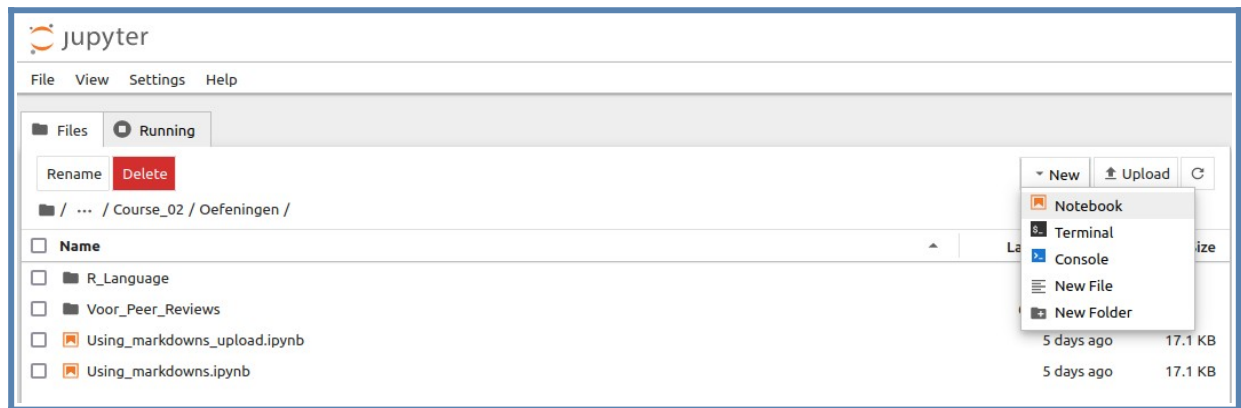
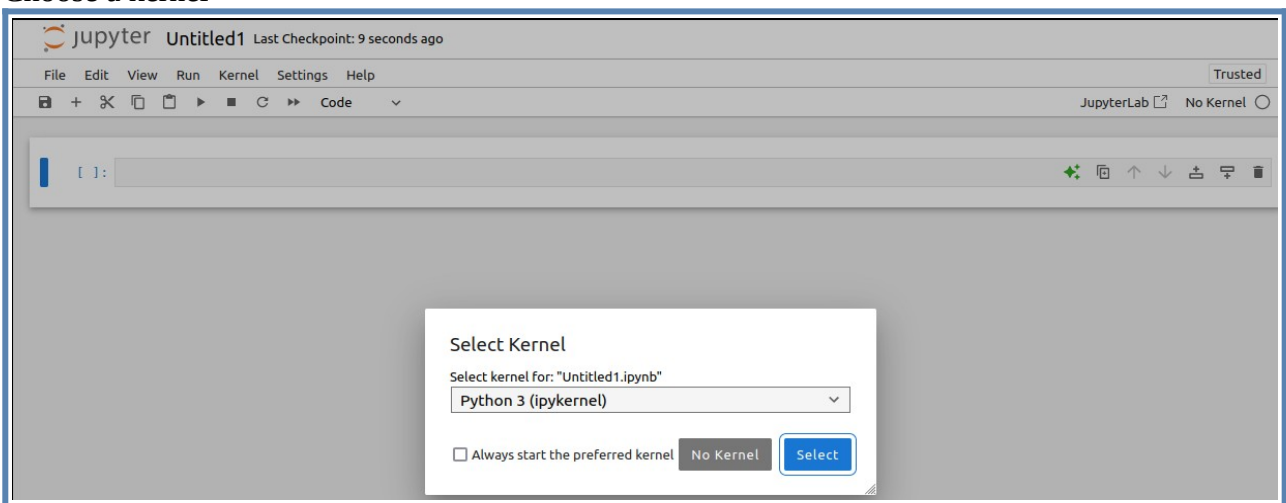


Exercise 1: Create a Jupyter Notebook

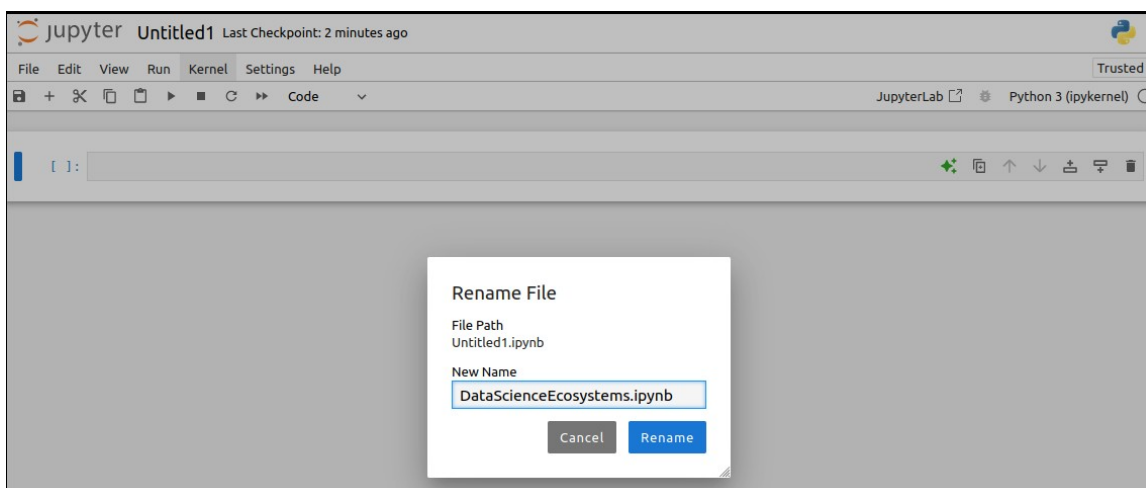
Create a new Jupyter notebook called **DataScienceEcosystem.ipynb**



Choose a kernel



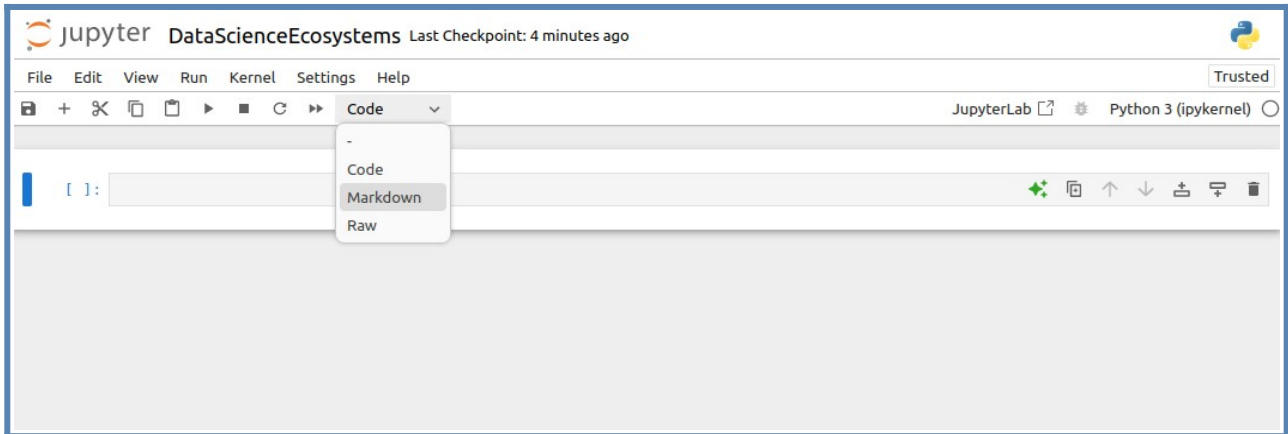
Click on the name 'Untitled1' to rename it :



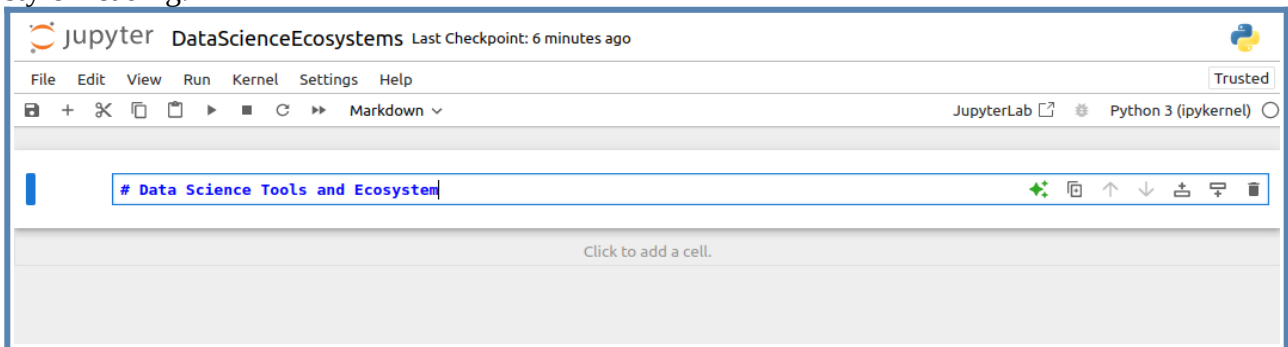
Exercise 2: Create markdown cell with title of the notebook

Create a markdown cell with the title Data Science Tools and Ecosystem using H1 style heading.

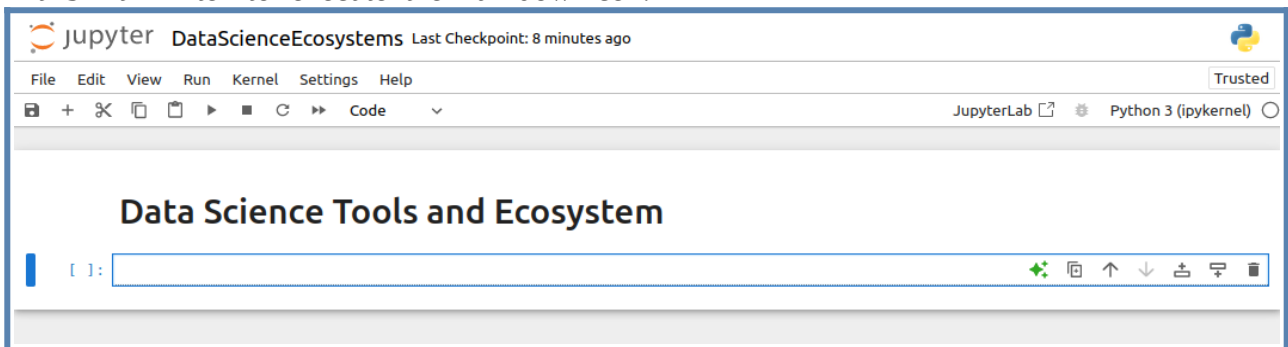
Select a cell in the notebook , click on ‘Code’ in the menu en select Markdown the change the code cell to a markdown cell.



Type the tekst “# Data Science Tools and Ecosystem” in the markdown cell. The ‘#’ makes it H1 style Heading.

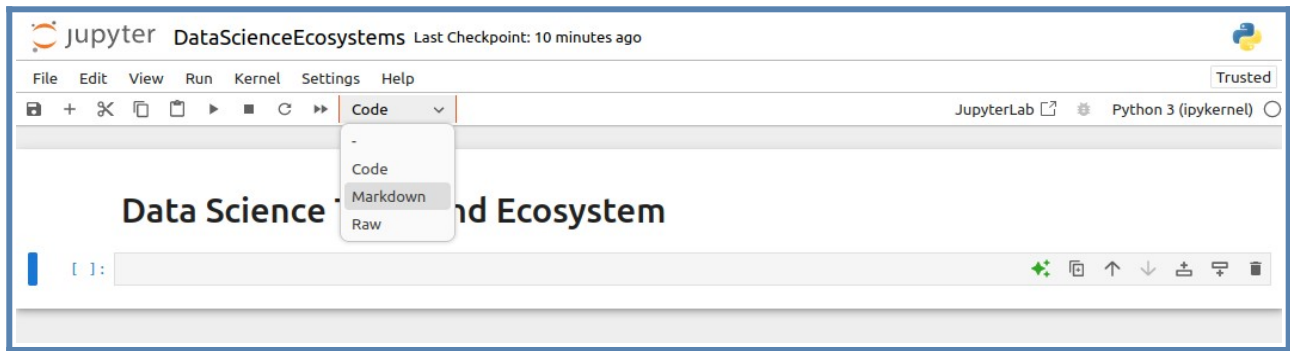


Hit ‘Shift + Enter’ to ‘execute’ the markdown cell.

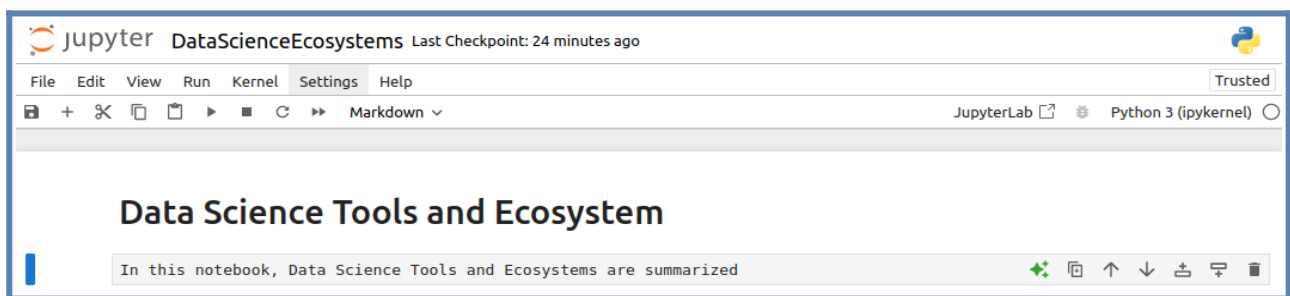


Exercise 3 - Create a markdown cell for an introduction

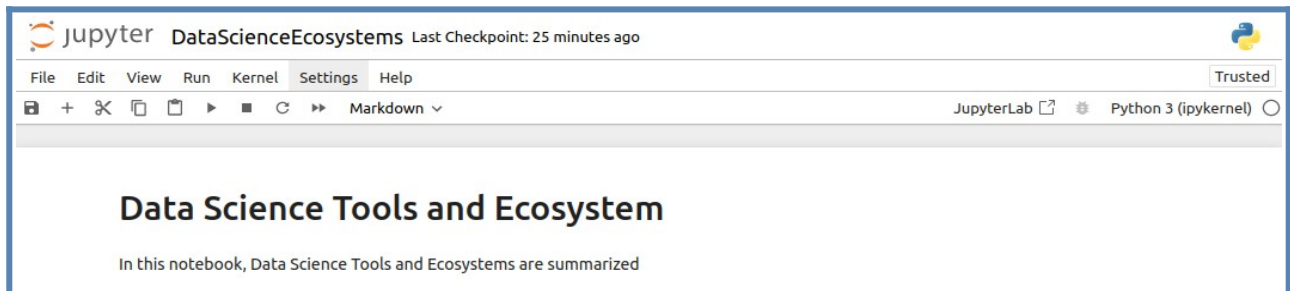
Create and select a new markdown cell



Write the text 'In this notebook, Data Science Tools and Ecosystems are summarized'

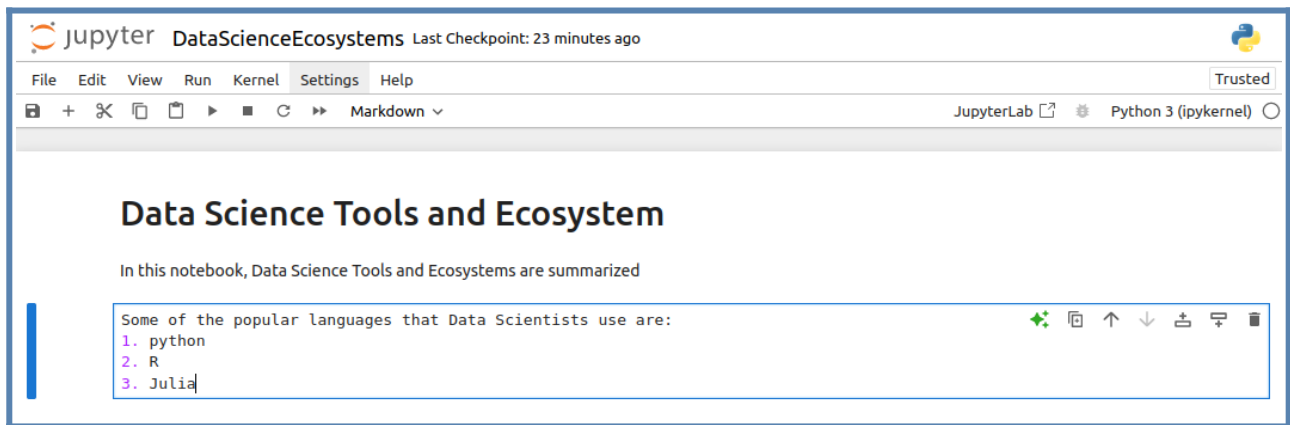


Hit 'Shift+Enter'



Exercise 4 - Create a markdown cell to list data science languages

Put a line of text and an ordered list in the Markdown cell.



The screenshot shows the JupyterLab interface with the notebook titled "DataScienceEcosystems". The top bar indicates the last checkpoint was 23 minutes ago. The menu bar includes File, Edit, View, Run, Kernel, Settings, and Help. The toolbar shows various icons for file operations and execution. The notebook content includes a title "Data Science Tools and Ecosystem" and a paragraph "In this notebook, Data Science Tools and Ecosystems are summarized". A code cell is active, containing the text "Some of the popular languages that Data Scientists use are:" followed by an ordered list: 1. python, 2. R, 3. Julia. The code cell toolbar shows icons for running, undo, redo, and other actions.

jupyter DataScienceEcosystems Last Checkpoint: 23 minutes ago

File Edit View Run Kernel Settings Help Trusted

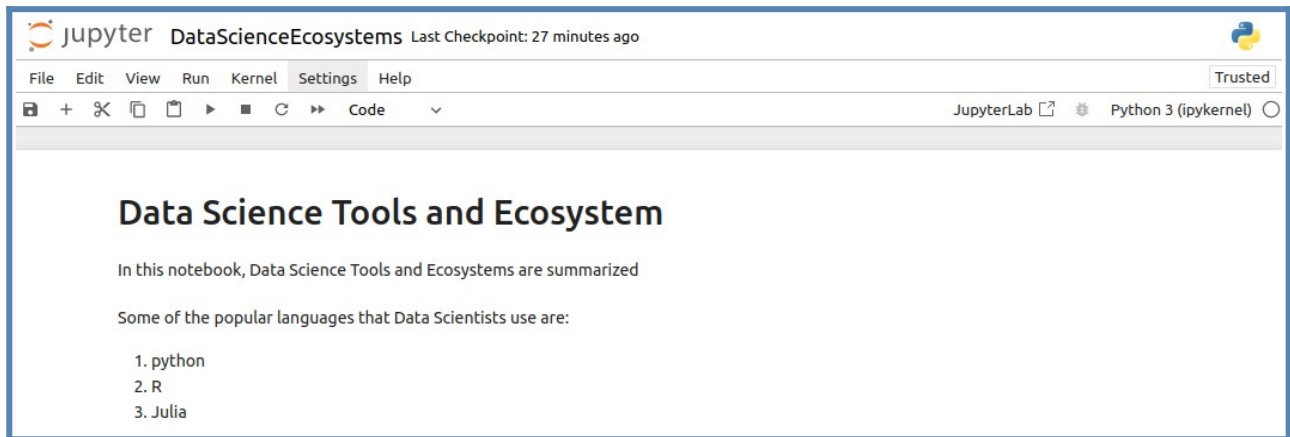
JupyterLab Python 3 (ipykernel)

Data Science Tools and Ecosystem

In this notebook, Data Science Tools and Ecosystems are summarized

```
Some of the popular languages that Data Scientists use are:
1. python
2. R
3. Julia
```

Hit 'Shift+Enter'



The screenshot shows the JupyterLab interface with the notebook titled "DataScienceEcosystems". The top bar indicates the last checkpoint was 27 minutes ago. The menu bar includes File, Edit, View, Run, Kernel, Settings, and Help. The toolbar shows various icons for file operations and execution. The notebook content includes a title "Data Science Tools and Ecosystem" and a paragraph "In this notebook, Data Science Tools and Ecosystems are summarized". A code cell is active, containing the text "Some of the popular languages that Data Scientists use are:" followed by an ordered list: 1. python, 2. R, 3. Julia. The code cell toolbar shows icons for running, undo, redo, and other actions.

jupyter DataScienceEcosystems Last Checkpoint: 27 minutes ago

File Edit View Run Kernel Settings Help Trusted

JupyterLab Python 3 (ipykernel)

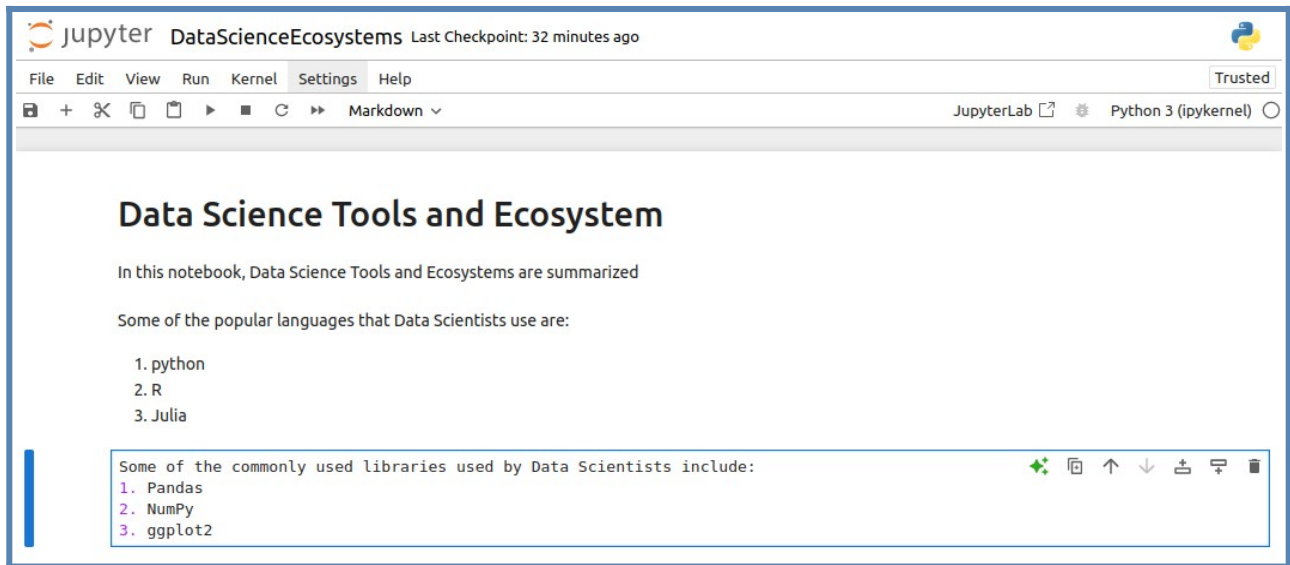
Data Science Tools and Ecosystem

In this notebook, Data Science Tools and Ecosystems are summarized

Some of the popular languages that Data Scientists use are:

1. python
2. R
3. Julia

Exercise 5 - Create a markdown cell to list data science libraries



The screenshot shows the JupyterLab interface with the notebook titled "DataScienceEcosystems". The top bar indicates the last checkpoint was 32 minutes ago. The menu bar includes File, Edit, View, Run, Kernel, Settings, and Help. The toolbar shows various icons for file operations and execution. The notebook content is in a markdown cell, which is currently in edit mode (indicated by a blue border and a vertical bar on the left). The text in the cell reads:

Data Science Tools and Ecosystem

In this notebook, Data Science Tools and Ecosystems are summarized

Some of the popular languages that Data Scientists use are:

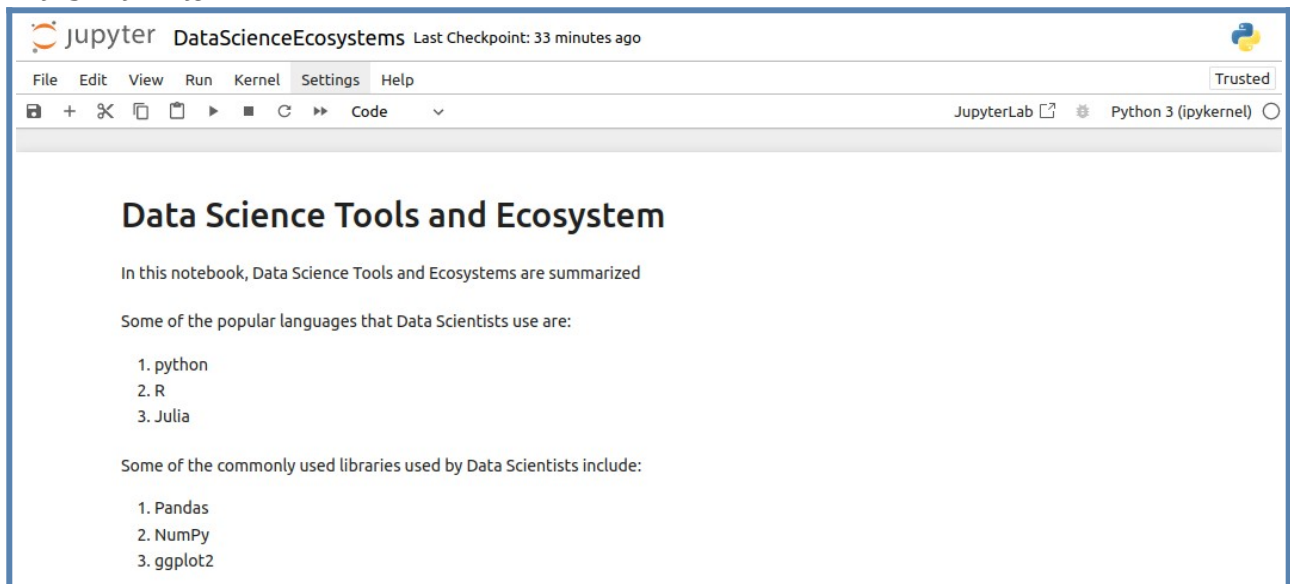
1. python
2. R
3. Julia

Some of the commonly used libraries used by Data Scientists include:

1. Pandas
2. NumPy
3. ggplot2

The right side of the toolbar shows icons for undo, redo, copy, paste, and other actions.

Hit 'Shift+Enter'



The screenshot shows the same JupyterLab interface, but the notebook is now in "Code" mode (indicated by the "Code" button in the toolbar). The text in the cell is rendered as markdown:

Data Science Tools and Ecosystem

In this notebook, Data Science Tools and Ecosystems are summarized

Some of the popular languages that Data Scientists use are:

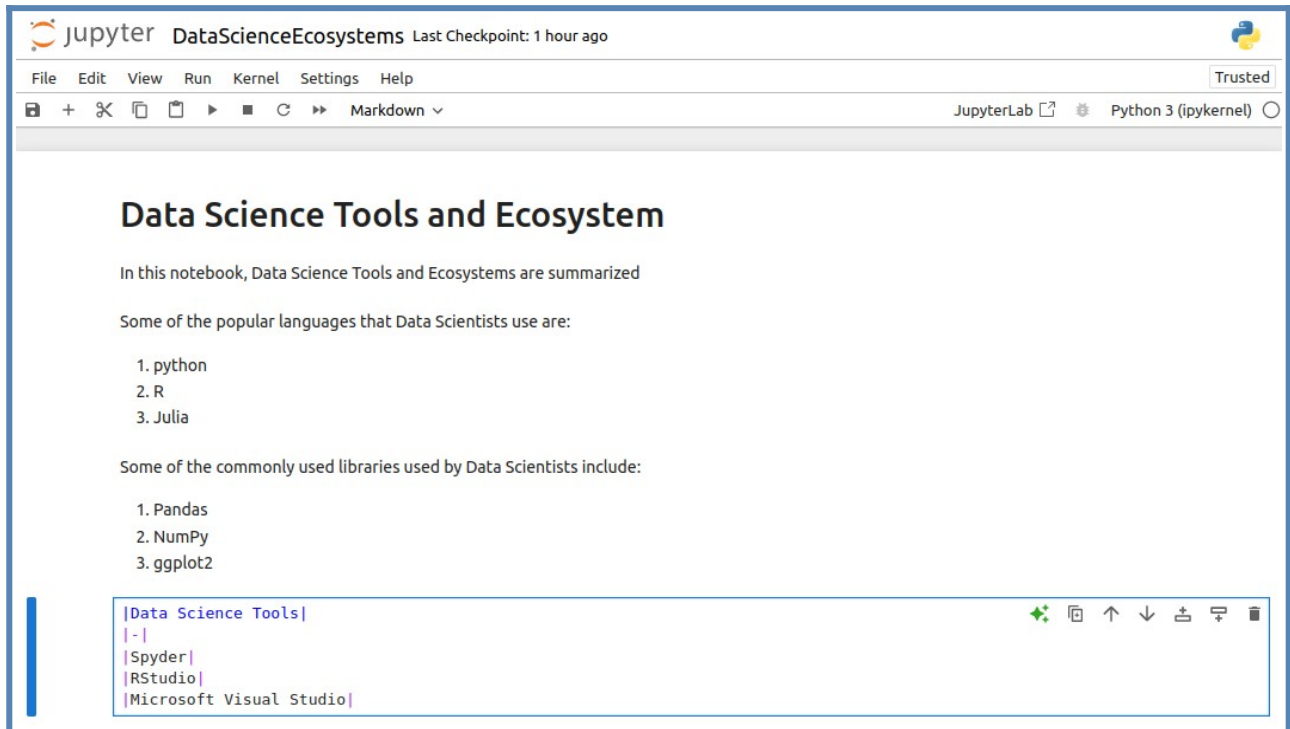
1. python
2. R
3. Julia

Some of the commonly used libraries used by Data Scientists include:

1. Pandas
2. NumPy
3. ggplot2

The right side of the toolbar now shows icons for running the cell, saving, and other actions.

Exercise 6 - Create a markdown cell with a table of Data Science tools



The screenshot shows a JupyterLab interface with a notebook titled "DataScienceEcosystems". The notebook contains a markdown cell with the following content:

Data Science Tools and Ecosystem

In this notebook, Data Science Tools and Ecosystems are summarized

Some of the popular languages that Data Scientists use are:

1. python
2. R
3. Julia

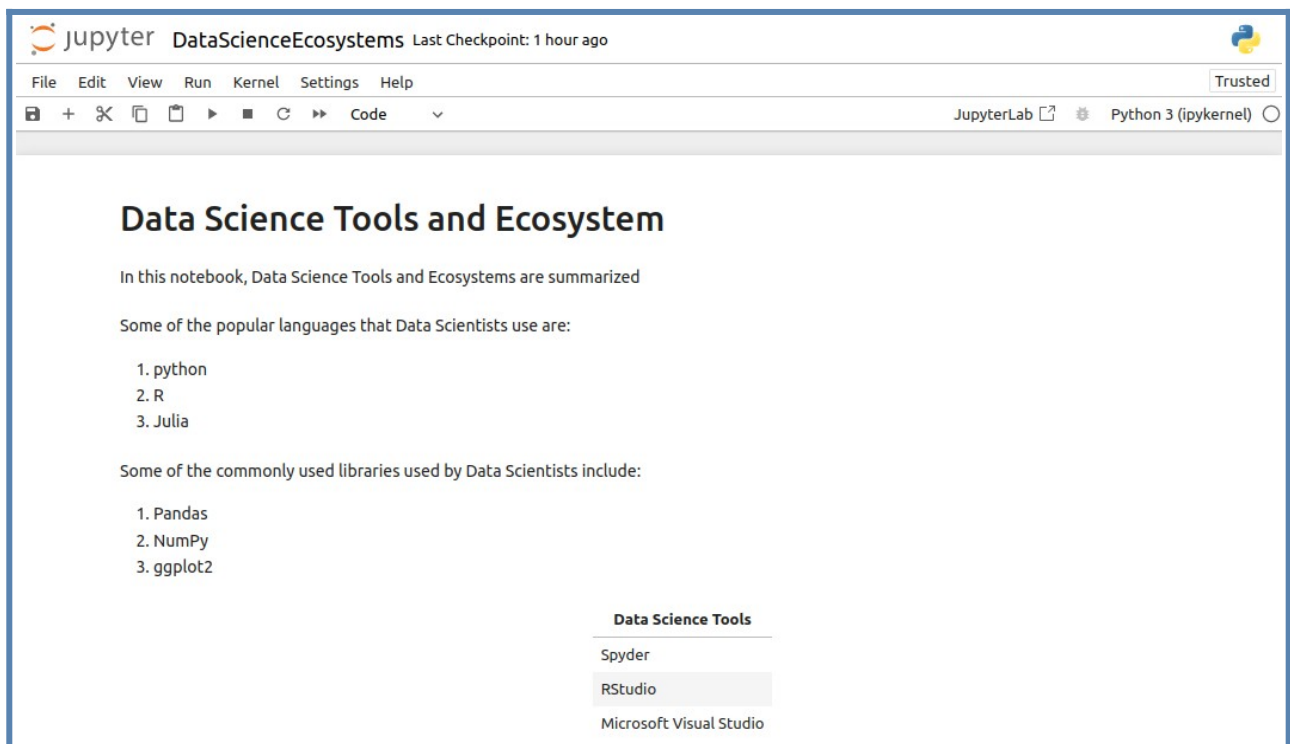
Some of the commonly used libraries used by Data Scientists include:

1. Pandas
2. NumPy
3. ggplot2

Below the text, there is a table titled "Data Science Tools" with the following content:

Spyder
RStudio
Microsoft Visual Studio

Hit 'Shift + Enter'



The screenshot shows the same JupyterLab interface, but the markdown cell has been rendered into a table. The table is titled "Data Science Tools" and contains the following content:

Data Science Tools
Spyder
RStudio
Microsoft Visual Studio

Exercise 7 - Create a markdown cell introducing arithmetic expression examples

```
### Below are a few examples of evaluating arithmetic expressions in Python
```

Below are a few examples of evaluating arithmetic expressions in Python

Exercise 8 - Create a code cell to multiply and add numbers

```
[16]: # This a simple arithmetic expression to mutiply then add integers
      (3*4)+5
[16]: 17
```

Exercise 9 - Create a code cell to convert minutes to hours

```
[22]: # This will convert 200 minutes to hours by diving by 60
      round((200/60), 2)
[22]: 3.33
```

Exercise 10 - Insert a markdown cell to list Objectives

```
**Objectives:**
* List popular languages for Data Science
* List commonly used libraries used by Data Scientists
* List some popular development tools used by Data Scientists
* Show an example of simple arithmetic expressions
```

Objectives:

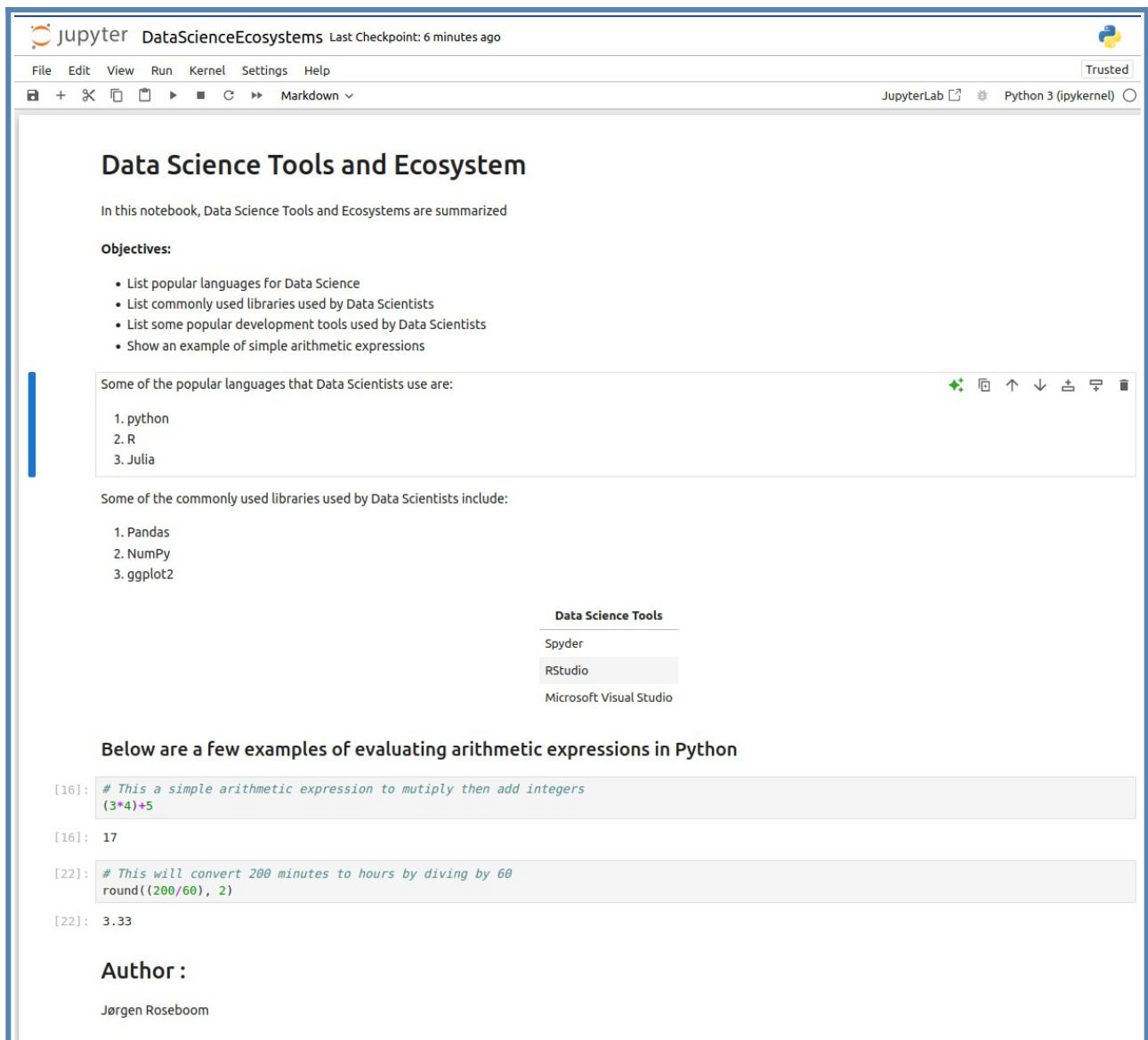
- List popular languages for Data Science
- List commonly used libraries used by Data Scientists
- List some popular development tools used by Data Scientists
- Show an example of simple arithmetic expressions

Exercise 11 - Create a markdown cell to indicate the Author's name

```
## Author :
Jørgen Roseboom
```

▼ **Author :**
Jørgen Roseboom

Exercise 13 -Take a screenshot of the first page of the notebook



The screenshot shows a JupyterLab interface with a notebook titled "DataScienceEcosystems". The notebook content includes a title "Data Science Tools and Ecosystem", a brief introduction, a list of objectives, and sections detailing popular languages and libraries used by data scientists. It also lists data science tools like Spyder, RStudio, and Microsoft Visual Studio. The notebook concludes with examples of evaluating arithmetic expressions in Python and identifies the author as Jørgen Roseboom.

Jupyter DataScienceEcosystems Last Checkpoint: 6 minutes ago

File Edit View Run Kernel Settings Help Trusted

JupyterLab Python 3 (ipykernel)

Data Science Tools and Ecosystem

In this notebook, Data Science Tools and Ecosystems are summarized

Objectives:

- List popular languages for Data Science
- List commonly used libraries used by Data Scientists
- List some popular development tools used by Data Scientists
- Show an example of simple arithmetic expressions

Some of the popular languages that Data Scientists use are:

1. python
2. R
3. Julia

Some of the commonly used libraries used by Data Scientists include:

1. Pandas
2. NumPy
3. ggplot2

Data Science Tools

- Spyder
- RStudio
- Microsoft Visual Studio

Below are a few examples of evaluating arithmetic expressions in Python

```
[16]: # This a simple arithmetic expression to mutiply then add integers
      (3*4)+5
```

```
[16]: 17
```

```
[22]: # This will convert 200 minutes to hours by diving by 60
      round((200/60), 2)
```

```
[22]: 3.33
```

Author :

Jørgen Roseboom