DataScienceEcosystem

March 26, 2025

Exercise 1: Create a Jupyter Notebook (DataScienceEcosystem.ipynb)

[ ]:
```
Exercise 2: Create markdown cell with title of the notebook
<center>
    <img src="https://cf-courses-data.s3.us.cloud-object-storage.appdomain.
 ↪cloud/IBMDeveloperSkillsNetwork-DS0105EN-SkillsNetwork/labs/Module2/images/
 ↪SN_web_lightmode.png" width="300" alt="cognitiveclass.ai logo">
</center>
```

[ ]:
```
Exercise 2: Create markdown cell with title of the notebook H1 Style Heading
# Data Science Tools and Ecosystem
```

1 Data Science Tools and Ecosystem

Exercise 3: Create a markdown cell for an introduction In this notebook, Data Science Tools and Ecosystem are summarized.

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Exercise 10: Insert a markdown cell to list Objectives ## Objectives:

- Create a Jupyter Notebook
- Insert code and use markdown cells
- Share the notebook through GitHub

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Exercise 4: Create a markdown cell to list data science languages print ("Some of the common languages that Data Scientists use are: 1. Python 2. R 3. SQL

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Exercise 5: Create a markdown cell to list data science libraries Some of the commonly used libraries used by Data Scientists include: 1. Pandas 1. Pandas is one of the best libraries for Python 2. Panda is a free software library 2. NumPy 1. NumPy is a library for numerical computing data 2. It is a free Python software library 3. SciPy 1. is a library for scientific computing and technical comuting of data 2. It is a free software library

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Exercise 6: Create a markdown cell with a table of Data Science tools |**Data Science Tools**| |————————-| |Jupyter Notebook | |RStudio | |VS Code |

Data Science Tools
Jupyter Notebook
RStudio
VS Code

Exercise 7: Create a markdown cell introducing arithmetic expression examples using H3 style heading ### Below are a few examples of evaluating arithmetic expressions in Python ————————

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

[9]:
```
Exercise 8: Create a code cell to multiply and add numbers
Run code in Jupyter notebook.
5+3
```

[9]: 8

[11]:
```
Modulus (returns the remainder of the division)
20 % 6
```

[11]: 2

[12]:
```
Exponentiation (raising to a power)
3 ** 4
```

[12]: 81

[13]:
```
10 + 5 * 2 - 8 / 4
```

[13]: 18.0

[14]:
```
a = 15
b = 4
a * b + 10
```

[14]: 70

a = 15 b = 4 a * b + 10

[25]:
```
Exercise 9: Create a code cell to convert minutes to hours

#Function to convert minutes to hours
def convert_minutes_to_hours(minutes):
    hours = minutes / 60 # Convert minutes to hours
    return hours

# Define the number of minutes to convert
minutes = 120 # You can change this number to any value you want to convert

# Call the function and print the result
hours = convert_minutes_to_hours(minutes)
print(f"{minutes} minutes is equal to {hours} hours.")
```

```
120 minutes is equal to 2.0 hours.
```

1.3 Author,

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