Data Science Tools and Ecosystem

In this notebook, Data Science Tools and Ecosystem are summarized.

Objectives:

- List data science languages
- List data science libraries
- Create a table of open-source development environment tools
- Arithmetic Expression in Python and examples
- Ways to convert minutes to hours

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Exercise 4 - Some of the popular languages that Data Scientists use are:

1. Python
2. R
3. SQL
4. Scala
5. Java
6. C++

Exercise 5 - Some of commonly used libraries used by Data Scientists include:

1. Pandas
2. NumPy
3. MatplotLib
4. Scikit-Learn
5. Keras
6. TensorFlow
7. Pytorch

> Jupyter is not a library but it is a essential tool for Data Scientists.

Exercise 6 - Three development environment open source used in data science

Data Science Tools
Jupyter Notebook
RStudio
Spyder

Below are a few examples of evaluating arithmetic expressions in Python

Addition

```
result = 10 + 5
result = 15
```

Subtraction

```
result = 10 + 5
result = 5
```

Multiplication

```
result = 10 * 5
result = 50
```

Division

```
result = 100 / 5
result = 20
```

In [24]:
```
# Exercise 8 - This is a simple arithmetic expression to multiply then add integers

(3*4)+5
```

Out[24]:
```
17
```

In [26]:
```
# Exercise 9 (1) - This will convert 200 minutes to hours by diving by 60

minutes = 200
hours = minutes / 60
print(hours)
```

```
3.3333333333333335
```

In [19]:
```
# Exercise 9 (2) - This will convert 200 minutes to hours by diving by 60

minutes = 200
hours = minutes / 60
format_hours = "{:.0f}:{:02.0f}".format(hours, (hours % 1)*60)
print(format_hours)
```

```
3:20
```

In [20]:
```
# Exercise 9 (3) - This will convert 200 minutes to hours by diving by 60

total_minutes = 200
hours = total_minutes // 60
minutes = total_minutes % 60

print(f"{total_minutes} minutes equals {hours} hours and {minutes} minutes.")
```

```
200 minutes equals 3 hours and 20 minutes.
```

In [ ]: