



Add your code below following the instructions given in the course

Data Science Tools and Ecosystem

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

Some of the popular languages that Data Scientists use are:

1. Python
2. R
3. SQL
4. Julia
5. SAS

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

Python:

Pandas: Essential for data manipulation and analysis.

NumPy: Key for numerical computations.

Matplotlib: Basic plotting and visualization.

Scikit-learn: Go-to for machine learning.

TensorFlow & PyTorch: Powerhouses for deep learning.

R:

ggplot2: For elegant data visualizations.

dplyr: Handy for data manipulation.

caret: Simplifies machine learning workflows.

General:

SQLAlchemy: Makes SQL queries within Python a breeze.

NLTK: Perfect for natural language processing.

Plotly: Interactive visualizations that wow.

Data science tools and thier uses include

Tool	Description
Pandas	Data manipulation and analysis library for Python.
NumPy	Library for numerical computations in Python.
Matplotlib	Plotting and visualization library for Python.
Scikit-learn	Machine learning library for Python.
TensorFlow	Deep learning framework developed by Google.
PyTorch	Deep learning framework developed by Facebook.
ggplot2	Data visualization package for R.
dplyr	Data manipulation package for R.
SQLAlchemy	SQL toolkit and ORM for Python.
NLTK	Natural Language Processing toolkit for Python.

| **Plotly** | Interactive graphing library for Python.

Below are a few examples of evaluating arithmetic expressions in Python

In [5]: *# This a simple arithmetic expression to multiply then add integers*

```
(3*4)+5
```

Out[5]: 17

In [6]: *# This will convert 200 minutes to hours by diving by 60*
`print(200/60,"hours")`

3.3333333333333335 hours

Objectives of this Notebook:

- Listed popular datascience libraries
- Listed popular data science languages
- Listed popular data science tools and their uses
- Porvided examples of some arithmatic capabilities of python

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In []: