

# DataScienceEcosystem

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## 1 Data Science Tools and Ecosystem

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

**OBJECTIVES:** Introduce the different categories of Data Science tools

- popular languages
- commonly used libraries
- Project Jupyter

### 1.0.1 Some of the popular languages that Data Scientists use are:

1. Python.
2. R.
3. SQL.
4. Java.
5. Julia.
6. Scala.
7. C/C++.
8. JavaScript.

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

1. TensorFlow.
2. NumPy.
3. SciPy.
4. Pandas.
5. Matplotlib.
6. SciKit-Learn.
7. PyTorch.
8. Scrappy.

### 1.0.3 Below are a number of Tools used by Data Scientists:

Data Science Tools	Purpose
RStudio	an IDE specifically for R
Jupyter Notebook	an interactive environment for data analysis
Visual Studio Code	a versatile code editor
Git	version control system
Apache Hadoop	for large-scale data processing
TensorFlow	a machine learning library
Pandas	a tool that works well with numerical tables and time-series data
Apache Spark	an analytics engine for big data
Scrapy	for web scraping and data extraction

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

```
[8]: 6+9
```

```
[8]: 15
```

```
[10]: 1+2+3+4+5
```

```
[10]: 15
```

#### 1.0.5 This is a simple arithmetic expression to multiply then add integers.

```
[13]: (3*4)+5
```

```
[13]: 17
```

#### 1.0.6 This is a simple code to convert minutes to hours.

```
[16]: minutes = 750
      hours = minutes / 60

      print(f"{hours} hours")
```

```
12.5 hours
```

### 1.1 Author

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