## Programming in Python: Takeaways

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## **Syntax**

• Displaying the output of a computer program:

```
print(1 + 2)
print(5 * 10)
```

• Ignoring certain lines of code by using code comments:

```
# print(1 + 2)
print(5 * 10)
# This program will only print 50
```

• Performing arithmetical operations:

```
1 + 2

4 - 5

30 * 1

20 / 3

4**3

(4 * 18)**2 / 10
```

## **Concepts**

- When we give a computer a set of instructions, we say that we're **programming** it. To program a computer, we need to write the instructions in a special language, which we call a **programming language**.
- Python has syntax rules, and each line of instruction has to comply with these rules. For example,
   print(23 + 7) print(10 6) print(12 + 38) doesn't comply with Python's syntax rules and raises a syntax error.
- The instructions we send to the computer are collectively known as **code**. Each line of instruction is known as a **line of code**.
- When we write code, we *program* the computer to do something. For this reason, we also call the code we write a **computer program**, or a **program**.
- The code we write serves as **input** to the computer. The result of executing the code is called **output**.
- The sequence of characters that follows the # symbol is called a **code comment**. We can use code comments to stop the computer executing a line of code or add information about the code we write.

## Resources

- The AI Hierarchy of Needs
- Data engineering: A quick and simple definition



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