An introduction to Python - Lesson overview

Learning objectives:

- Understand Python's key characteristics, advantages, and place in the history and evolution of programming languages.
- Know how to use environments like Jupyter Notebook and Google Colab for coding.
- Know how to manage and submit notebooks on Athena.
- Understand and apply fundamental Python concepts, including arithmetic operations, variable assignment, and displaying results.

Legend:
- Video
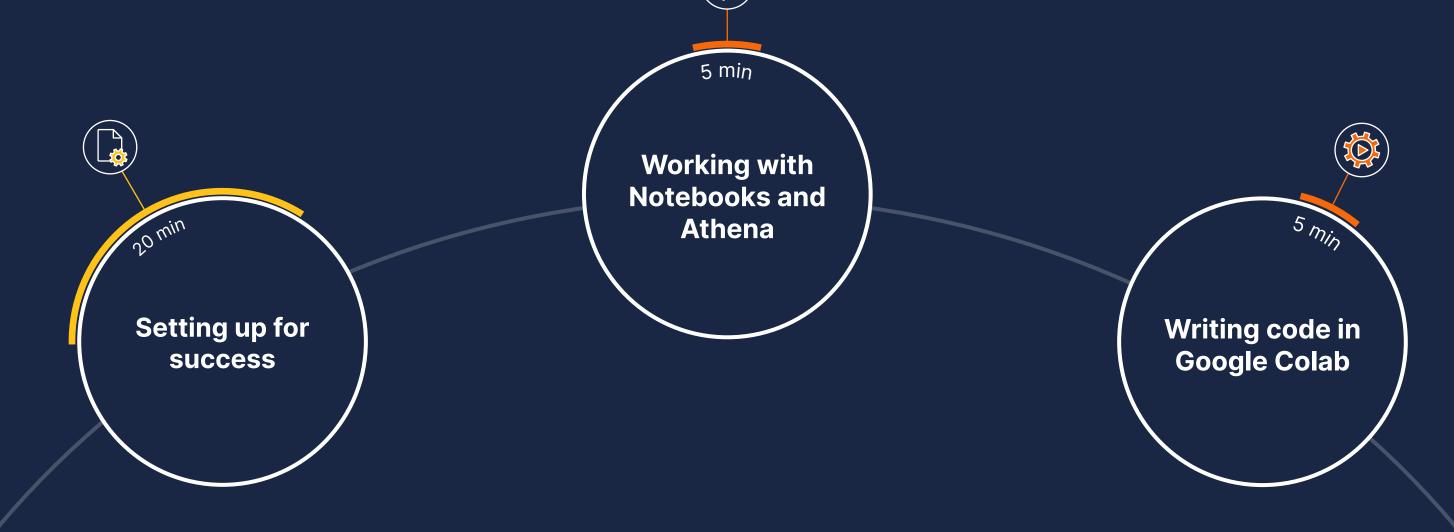- Notebook
- Code challenge
- Knowledge questions
- Walk-through

Working with Notebooks and Athena — 5 min

Setting up for success — 20 min

Writing code in Google Colab — 5 min

An introduction to Python — 5 min, 5 min, 5 min

Farm management — 25 min

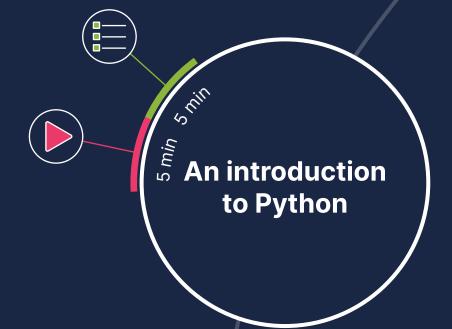## Description

Understanding Python's role and capabilities is essential to harnessing its power for **complex data analysis** and **modelling**.

In this lesson, we introduce **Python's features**, evolution, and **real-world applications**. We'll cover setting up Python **tools**, managing **notebooks** in environments like Jupyter Notebook and Google Colab, and **submitting code** on Athena. We'll also learn **basic Python programming**, including arithmetic operations and using the print() function.

By the end of this lesson, we'll be skilled in Python's fundamentals and ready for more advanced coding challenges.