

Artificial Intelligence/Machine Learning Bootcamp

"Python Made Simple: Learn, Understand, Practice".

□Agenda

Welcome to your Python and Jupyter learning journey. This notebook is designed to guide you through key concepts and foundational knowledge to help you set up your environment, understand core principles, and build confidence as you begin learning something new.

Agenda: Topics Covered

1. [The Origin of Python](#)

A brief history of how Python was created and its evolution over time.

2. [Why Python?](#)

Understand the importance of Python and why it is widely used today.

3. [Common Python Terminology](#)

Introduction to frequently used terms in Python programming.

The Origin of Python

Python was created in the late 1980s by **Guido van Rossum** and released in 1991. He wanted to build a programming language that was easy to read and simple to use. The name "Python" actually comes from the British comedy group **Monty Python**, not the snake! Over the years, Python has grown to become one of the most popular programming languages in the world. Its clean and simple syntax makes it a favorite for beginners, while its powerful capabilities attract professionals in fields like data science, AI, web development, and automation.

Absolutely! Here are **additional key points** for each agenda topic to help reinforce understanding and make your session more engaging. Each list expands on the original explanations in a **simple, easy-to-grasp way**:

Key Points:

- Created by **Guido van Rossum** in 1991.
- Named after "**Monty Python's Flying Circus**" (a comedy show).
- Designed to be **simple, readable, and user-friendly**.
- Initially developed as a hobby project during a holiday break.
- Has grown into one of the **top 5 most-used programming languages** in the world.
- Popular for its **versatility**—used in AI, web dev, automation, and more.

Why Python?

Python is widely used because it's **easy to learn, write, and understand**. Its clean syntax is similar to English, making it beginner-friendly. Python can be used for many things like building websites, analyzing data, creating AI models, automating tasks, and more. It has a large community, which means you'll find plenty of support, tutorials, and libraries that make programming easier. Companies like Google, Netflix, and NASA use Python. Whether you're a student or a working professional, learning Python can open up many opportunities in today's tech world. Absolutely! Here are **additional key points** for each agenda topic to help reinforce understanding and make your session more engaging. Each list expands on the original explanations in a **simple, easy-to-grasp way**:

Key Points:

- **Simple syntax** that reads like English—great for beginners.
- **Cross-platform**—works on Windows, macOS, Linux.
- Used in many industries: **data science, AI, web, finance, healthcare**.
- Huge community support: **millions of developers** and free resources.

- Has **powerful libraries** (like Pandas, NumPy, TensorFlow, Flask).
 - Helps in **quick prototyping** and faster development.
 - Widely used by companies like **Google, YouTube, Netflix, NASA**.
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Common Python Terminology

When learning Python, you'll come across many new words. For example, a **variable** is a name that stores data (like a container). A **function** is a block of code that performs a task when called. **Loops** are used to repeat actions, while **conditions** help make decisions in code. You'll also hear about **data types** like integers, strings, and lists. Understanding these basic terms helps you read, write, and understand Python code more easily. Don't worry if they sound confusing at first—they'll become clearer as you practice. Absolutely! Here are **additional key points** for each agenda topic to help reinforce understanding and make your session more engaging. Each list expands on the original explanations in a **simple, easy-to-grasp way**:

Key Points:

- **Variable:** Used to store data (e.g., `name = "John"`).
 - **Data Types:** Integer, float, string, list, dictionary, etc.
 - **Function:** A block of code that runs when called (e.g., `def greet():`).
 - **Loop:** Repeats code (`for` , `while`).
 - **Conditionals:** Checks if something is true or false (`if` , `else`).
 - **Comments:** Used to explain code (`# This is a comment`).
 - **Indentation:** Python uses spaces/tabs to define code blocks.
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✓ Summary

In this session, we learned about the basics of Python programming. We started with the **origin of Python**, understanding how it was created to be simple and easy to use. Then we discussed **why Python is so popular**, especially in fields like data science and AI. We also explored some **common Python terms** like variables, loops, and functions, which are the building blocks of writing . With regular practice and a clear understanding of these basics, anyone can start building real projects in Python.

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