YABOT

Code Developer

LEVEL 2

Objective

Explore the foundations of Python programming through fun, hands-on projects.

Strengthen your problem-solving abilities while learning how to write clean, efficient code and think like a programmer.

Group Size
Typically 6 Students

Course duration
8-10 Months

T&C* The course timeline depends on each child's learning phase, with the same curriculum for all.

YABOOT

Curriculum

Python Foundations

1. **Introduction to Programming:** Understand coding, Python basics, and how it differs from block coding.
2. **Getting Started:** Install Python, use an IDE, and write your first "Hello World" program.
3. **Variables & Data Types:** Store, input, and manipulate different types of data (strings, numbers, booleans).
4. **Arithmetic & Comparisons:** Perform math operations and compare values for logic-based decisions.
5. **Conditionals:** Use if, elif, and else to build smart, decision-making programs.
6. **Loops:** Explore for and while loops to repeat actions and create fun patterns.

Data & Functions

1. **Lists, Tuples, & Dictionaries:** Work with collections to organize and access data efficiently.
2. **Functions:** Reuse code with functions, parameters, and return values.
3. **Files:** Learn how to read and write files to save data.
4. **Mid-Course Projects:** Apply loops, conditionals, and data structures in creative challenges and quizzes.

Create with Python

1. **Object-Oriented Programming (OOP):** Create classes, objects, and methods to structure code like real-world systems.
2. **Libraries:** Use built-in Python tools like math, random, and time to enhance projects.
3. **Introduction to Pygame:** Build visual, interactive programs using graphics and animations.
4. **Game Development with Pygame:** Add motion, images, collisions, scoring, and sounds to create games.
5. **Final Project:** Game Architect - Combine all concepts (functions, OOP, graphics) to design a custom Python game.