**🐍 Day 1 - What is Programming and Python?**

**💻 What is Programming?**

* A way to **instruct computers** to perform tasks.
* Computers are fast but need clear instructions.
* Example:
  + Easy: 5 + 6 = 11
  + Hard: 23453453 × 56456 → needs calculator
* Programming lets computers do these calculations **quickly**.
* This course will take you from **beginner to job-ready Python developer** in 100 days.

**🐍 What is Python?**

* A **high-level**, **interpreted**, and **general-purpose** programming language.
* Supports:
  + **Object-Oriented Programming (OOP)**
  + **Functional Programming**
* Created by **Guido van Rossum** in **1989**.

**⭐ Features of Python**

* Easy to learn & read
* Interpreted & platform-independent
* Open-source
* Huge library support: NumPy, TensorFlow, Selenium, OpenCV, etc.
* Can integrate with other languages (like C/C++)

**🛠️ Python is used for:**

* 📊 **Data Visualization**
* 📈 **Data Analytics**
* 🤖 **AI & Machine Learning**
* 🌐 **Web Development**
* 🗃️ **Database Management**
* 💼 **Business & Accounting**

**💡 Why use Replit?**

* Easy to write, run, and share code online
* Fork any project and learn your own way
* Combines video + code + notes on one screen
* Teachers can create .tutorial files for students