INTRODUCTION TO PYTHON PROGRAMMING

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Introduction

- Python is a high-level, interpreted programming language.
- Created by **Guido van Rossum** in **1989** and officially released in **1991**
- Designed for readability and simplicity.
- Widely used in web development, data science, AI, and more.

Google Colab

- **A free cloud-based platform by Google for coding in Python.**
  - Machine Learning, Deep Learning, Data Analysis, Image/Video Processing etc.
- **Provides access to GPUs/TPUs for machine learning and deep learning tasks.**
  - Free access
  - Collaborative environment
  - No installation required
  - Seamless integration with Google Drive
- **Limitations of Google Colab**
  - Limited session runtime (12 hours max).
  - Requires internet connectivity.

- **Getting Started with Google Colab:**
  - Open Google Colab at https://colab.research.google.com.
  - Sign in with your Google account.
  - Create a new notebook or upload an existing one.

Session Plan for Hands-on Python Programming

- Collab Setup
- Python Object and Data Structure Basic
  - Variable, DataType, Operator, String, List, Dictionary, etc.
- Statement (if-else)
- Loop (while & for)
- Functions (User defined & Built-in)
- Class
- Libraries
  - Numpy
  - Panda
  - Matplotlib

THANK YOU

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