

Data Science with Python



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Student Survey



Python

- Programming Language (Interpreted)
- Supports Structural & OOP Programming
- Code doesn't require ; but indentation
- Open Source, Availability of Libraries
- Uses:
 - Data Science  , AI and ML 
 - Web-Development 
 - Scripting & Q/A automation

IDE

- Integrated Development Environment
- Software which helps us to:
 - Write & edit code
 - Run Code
 - Identify issue with debugger
 - Syntax highlighting
 - Version Control etc.
- Popular IDE: VS-Code (Light Weight), PyCharm, Spyder
- Note book based: Google Collab

Syntax

- Easy as English.
 - `print("Hello World")`
 - `a = 20`
 - `b = 10`
 - `print(a + b)`
- No Semicolon and brackets ({})
- Indentation matters
- No type declaration
- Case Sensitive
- Has .py or .ipynb extension

Installation

- Download Python version 3.13 from python.org
(Remember: Add to path)
- Download and install VS-Code from code.visualstudio.com
- Go to Extension view: `ctrl+shift+x`, Search Python
(Microsoft) and Install
- For running: `ctrl+shift+p`, choose python

Google Colab

- Open Google Colab in browser
- Click on New Notebook
- Do Follow exercise:
 1. Display Hello World
 2. Display sum, difference, product & division of two numbers
 3. Do exercise 2 with negative & float number
 4. Play around with complex number