Python
For Beginners

Programming

Machine

Translator

Compiler / Interpreter

Code

What is Python

Python is a very popular general-purpose interpreted, interactive, object-oriented, and high-level programming language.

History of Python

Python was developed by **Guido van Rossum**

The first version (0.9) was released on **February 20, 1991.**

The name of the Python programming language comes from an old **BBC television** comedy sketch series called **Monty Python's Flying Circus.**

Features of Python

1. Simple Syntax
2. Easy to Learn
3. High-Level Language
4. Versatile Language
5. Portable Language
6. Standard Library
7. Object-Oriented
8. Open Source & Free

Features of Python

Simple Syntax

C

```c
#include
<stdio.h> int
main() {
   printf("Hello, World!");
   return 0;
}
```

JAVA

```java
public class HelloWorld {
   public static void main(String[] args)
      { System.out.println("Hello,
      World!");
   }
}
```

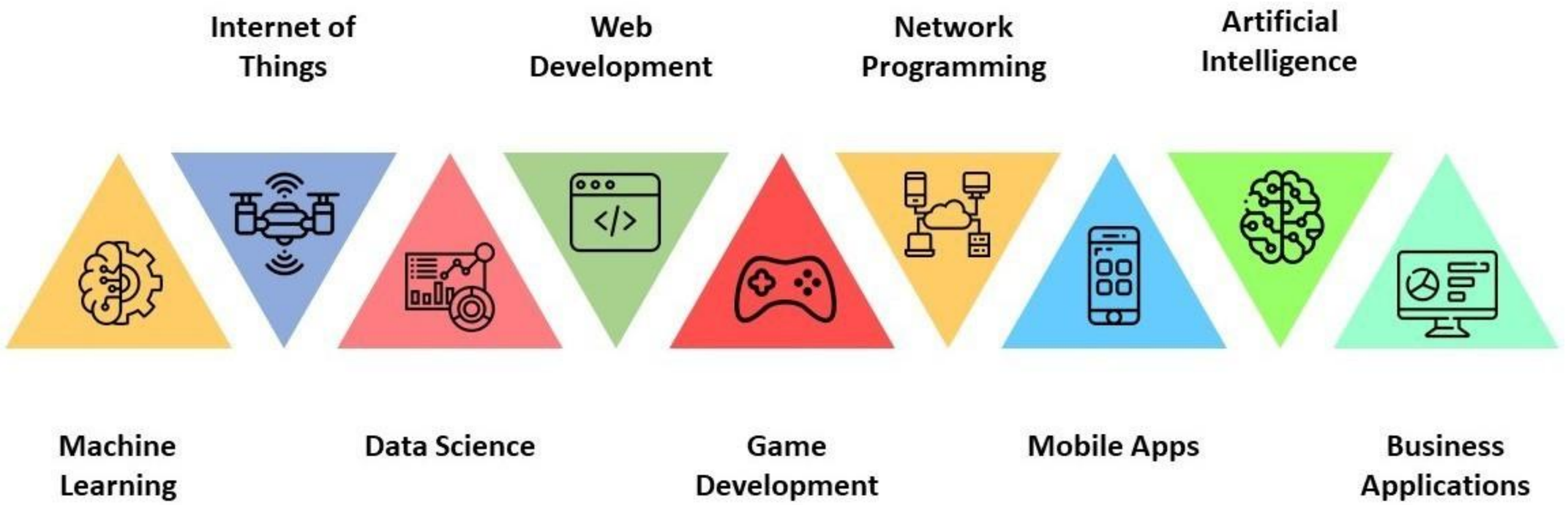
PHP

```php
<?php
echo "Hello, World!";
?>
```

Python

```python
print("Hello, World!")
```

Application of Python



Top Companies using Python

What IDE is used for Python?

PyCharm

Visual Studio Code

Jupyter

Spyder

Google Colab

Google Colab

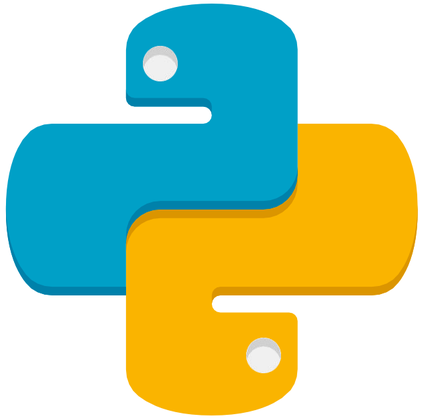
Steps to use Colab

Open Google Colab: Go to Google Colab and sign in with your Google account.
https://colab.research.google.com/

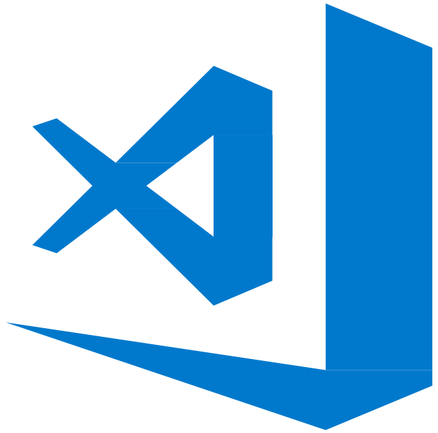
Create a New Notebook: Once you're on the Google Colab interface, click on ***File > New notebook*** to create a new notebook.

VS Code

To write and run **Python** code on **Visual Studio Code (VS Code)** on Windows, you'll need to download and install both Python and VS Code.



Python



VS Code

Python

Download and Install Python

- **Go to the Python website:** Open your web browser and go to the official Python download page: https://www.python.org/downloads/
- **Download Python:** Click the "**Download Python**" button. It will automatically select the latest version for Windows.
- **Run the installer:** Once the download is complete, run the installer. Make sure to check the box that says **"Add Python to PATH"** before clicking the **"Install Now"** button. This ensures that you can run Python from the command line.
- **Complete the installation:** Follow the on-screen instructions to complete the installation.

Visual Studio Code

Download and Install Visual Studio Code

- **Go to the VS Code website:** Open your web browser and go to the official Visual Studio Code download page: https://code.visualstudio.com/Download.
- **Download VS Code:** Click the **"Windows"** button to download the installer for Windows.
- **Run the installer:** Once the download is complete, run the installer. Follow the on-screen instructions to complete the installation. You can choose to create a desktop icon and add **"Open with Code"** action to the Windows Explorer context menu for easier access.

Visual Studio Code

Set Up VS Code for Python Development

- **Open VS Code:** Launch Visual Studio Code from the Start menu or desktop shortcut.
- **Install Python extension:** Click on the Extensions icon on the left sidebar (or press Ctrl+Shift+X), and in the search bar, type "**Python**". Install the extension provided by Microsoft.
- **Select the Python interpreter:** Once the extension is installed, open the command palette by pressing Ctrl+Shift+P, type "Python: Select Interpreter", and select the Python interpreter you installed in Step 1.
- **Create a new Python file:** Open a new file (Ctrl+N), and save it with a .py extension (e.g., hello.py).
- **Write and run your code:** Write your Python code in the file and run it by right-clicking inside the file and selecting ***"Run Python File in Terminal"*** or simply press **F5.**