

Artificial Intelligence Lab

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September 2022

1 What is the Python:-

Python is a computer programming language often used to build websites and software, automate tasks, and conduct data analysis. Python is a general-purpose language, meaning it can be used to create a variety of different programs and isn't specialized for any specific problems.

1.1 Function of Python:-

In Python, a function is a group of related statements that performs a specific task. Functions help break our program into smaller and modular chunks. As our program grows larger and larger, functions make it more organized and manageable. Furthermore, it avoids repetition and makes the code reusable.

1.2 Syntax:-

```
def functionname(parameters) :  
    """ docstring """  
    statement(s)
```

Example:-

```
def greet(name):  
    print("Hello, " + name + ". Good morning!")
```

Output:-

```
greet('Paul') Hello, Paul. Good morning!
```

1.3 Features of Funtion:-

Easy to Code. Python is a very high-level programming language, yet it is effortless to learn.

Easy to Read. Python code looks like simple English words.

Free and Open-Source.

Robust Standard Library.

Interpreted.
Portable.
Object-Oriented and Procedure-Oriented.
Extensible.

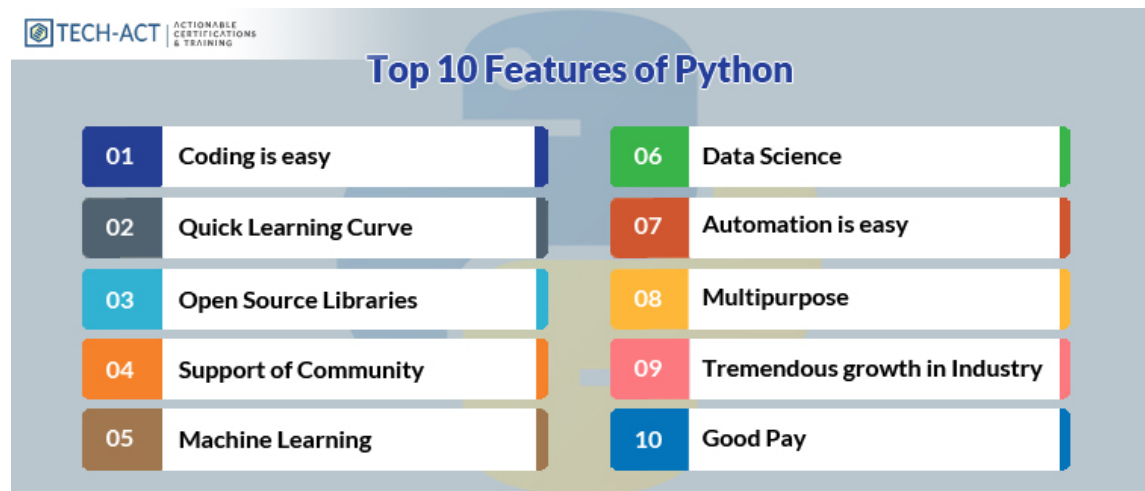


Figure 1: Features of Python

2 What is the Jupyter:-

The Jupyter Notebook App is a server-client application that allows editing and running notebook documents via a web browser. The Jupyter Notebook App can be executed on a local desktop requiring no internet access (as described in this document) or can be installed on a remote server and accessed through the internet.

In addition to displaying/editing/running notebook documents, the Jupyter Notebook App has a “Dashboard” (Notebook Dashboard), a “control panel” showing local files and allowing to open notebook documents or shutting down their kernels.

References: Jupyter Notebook App in the project homepage and in the official docs.

3 What is the Google Colaboratory:-

Colaboratory, or “Colab” for short, is a product from Google Research. Colab allows anybody to write and execute arbitrary python code through the browser, and is especially well suited to machine learning, data analysis and education.

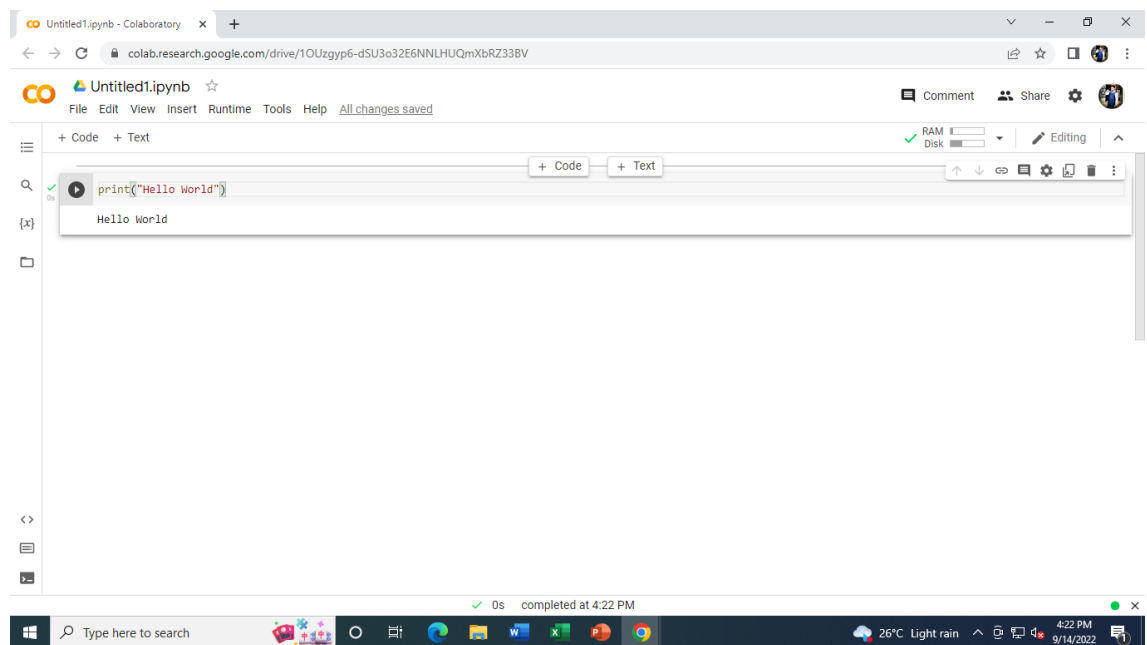


Figure 2: Google Colaboratory Page