

# Getting Started with Python

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# Python Overview

## What is Python?

Python is a popular programming language. It is developed by **Guido van Rossum**, and released in 1991.

It is used for:

- web development (server-side),
- software development,
- mathematics,
- system scripting.

# Python Overview

## Why Python?

- Python works on different platforms (Windows, Mac, Linux, Raspberry Pi, etc).
- Python has a simple syntax similar to the English language.
- Python has syntax that allows developers to write programs with fewer lines than some other programming languages.
- Python runs on an interpreter system, meaning that code can be executed as soon as it is written.
- Python can be treated in a procedural way, an object-oriented way or a functional way

# Python Installation Steps

- Download python installer from link
  - <https://www.Python.org/downloads/>
  - ❑ Download the .tgz file of Python from the above provided download link
    - [www.python.org/ftp/python/2.7.11/python-2.7.11.tgz](http://www.python.org/ftp/python/2.7.11/python-2.7.11.tgz)
  - ❑ Unzip the downloaded file.
    - Tar xvfz Python-2.7.11.tgz
  - ❑ Go to the directory
    - cd Python-2.7.11
  - ❑ ./configure
  - ❑ Build it.
  - ❑ Make
  - ❑ Su or sudo su if there is no root user
  - ❑ Make install

# How to Install Python 3.3

- Visit: [www.python.org](http://www.python.org)
  - Download python for Linux
  - Extract zip file in home
- Open Terminal
  - `$ sudo apt-get install build-essential`
  - `$ sudo apt-get install libsqlite3-dev`
  - `$ sudo apt-get install libbz2-dev`

## Go in Python folder

- `$ cd python 3.3.2`
- `$ python 3.3.2 $ ./configure`
- `python 3.3.2 $ make`
- `python 3.3.2 $ sudo make altinstall`

# Getting Started with Python

- How to write python program
- How to Run python Program?
- Python Indentations ( **We will see this later** )

# Getting Started with Python

- **How to write python program**

## Ways of Python Programming

1. **Command Line**
2. **Python IDLE ( Integrated Development and Learning Environment)**

# Command Line

## Steps in windows:

- Press the start button
- Click on All programs and then Python 3.8. After clicking on Python 3.8 you will see a list of options.
- In this list click on Python 3.7. After clicking on it, you will see the python Interactive prompt in python command line.

OR

- Open command prompt and type python ( After typing python you will enter in interpreter mode)



# Command Line

## Steps in Linux:

- Open Terminal
- Type Python ( After typing python you will enter in interpreter mode)

# Getting Started with Python

- **How to write python program**

## Ways of Python Programming

1. **Command Line**
2. **Python IDLE ( Integrated Development and Learning Environment)**

# IDLE ( Integrated Development and Learning Environment)

## Steps in windows:

- Press the start button or Type Python in search
- Click on IDLE(Python 3.8 )
- After clicking on it it will open Python IDLE i.e Python Interactive Prompt
- Click on File
- Click on New. It will open new file there we can type our python Program
- To run press F5. You will get output on interactive prompt.

# Getting Started with Python

- **How to write python program  
( On Linux OS)**

## **Steps to write Python Program (On Linux Platform )**

1. Open command prompt
2. Go in current folder
3. Type on command prompt  
\$ gedit sample.py OR \$pico sample.py
4. Save file (sample.py)
5. Run file  
\$ python sample.py

# Getting Started with Python

- **How to write python program**

**Sample.py**

```
statement_1  
statement_2  
statement_3
```

# Getting Started with Python

- **How to write python program**

## Sample.py

```
statement_1  
function_1() # Function Calling  
statement_2  
  
function_1()  
# Function definition
```

# Getting Started with Python

- **How to write python program**

## Sample.py

```
function_1()  
    # Function definition  
  
statement_1  
function_1()    # Function Calling  
statement_2
```

# Getting Started with Python

- **How to Run python Program?**

```
harish@harish-Inspiron-3537:~$ python file_name.py
```



# Getting Started with Python

- **How to Run python Program?**

```
harish@harish-Inspiron-3537:~$ python sample.py
```

# Getting Started with Python

*Hands-on !!*