

# PYTHON LANGUAGE

## LECTURE 1

3<sup>rd</sup> CS

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# CONTENT

- **Course Book**
  - Assessment scheme
  - Course Outline
- **References**
- **What is python?**
- **Why do people use it?**
- **Python Environment**
- **Install Python**



# ASSESSMENT SCHEME

- **Theoretical Exam:15 (2 exams)**
- **Practical Exam:30 (2 exams)**
- **Quizzes:5**
- **Final writing Exam: 50**



# COURSE CONTENT ( 1<sup>st</sup> SEMESTER)

- **Introduction on python language**
- **Data Type**
- **File and comparison**
- **Python Statement**
- **Methods and Functions**
- **OOP**



# COURSE CONTENT ( 2<sup>ND</sup> SEMESTER)

- **Introduction in GUIs using Tkinter**
- **Create Window**
- **Types of Widgets**

Toplevel widget	Label widget	Button widget
Canvas widget	Checkbutton widget	Entry widget
Frame widget	LabelFrame widget	Listbox widget
Menu widget	Menubutton widget	Message widget
OptionMenu widget	PanedWindow widget	Radiobutton widget
Scale widget	Scrollbar widget	Spinbox widget
Text widget	Bitmap Class widget	Image Class widget



# REFERENCES

**Python institute**

**Python Practice Book for Anand  
Chitipothu**

**Complete Python Bootcamp**



# WHAT IS PYTHON?

- Is an interpreted high-level , open-source programming language created by Guido Van Rossum in the early 1991.
- Implemented in 1989
- Called Python from "Monty Python's Flying Circus " series.



# Different Between Interpreter And Compiler?

## ❖ Interpreter

- Translates program one statement at a time.
- Continue executing program until get first error or finish (Easy Debugging).
- Slow
- Like:- Python, Ruby

## ❖ Compiler

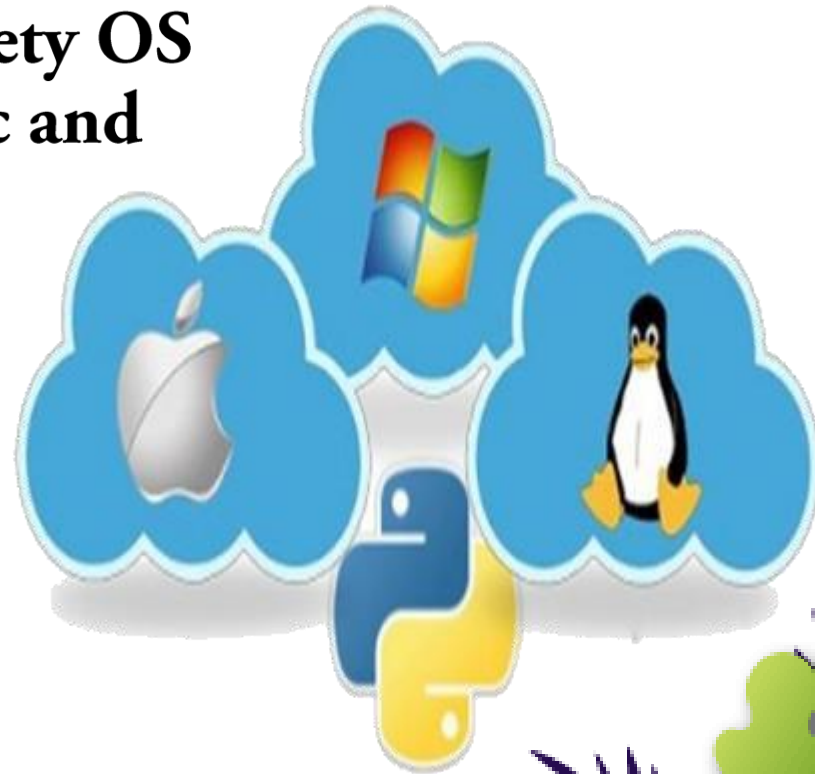
- Check the whole program then translates it into machine code.
- It create the error message after checking the whole program.
- Fast
- Like:- C++, Java and VB





# WHY DO PEOPLE USE PYTHON?

1. **Portable ( runs on variety OS such as: Windows, Mac and Linux).**



# WHY DO PEOPLE USE PYTHON?

## Python Comparison to other language

To Display "Hello World"

"Hello World!" Program in Python

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

"Hello World!" Program in C

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

"Hello World!" Program in C++

```
#include <iostream>
using namespace std ;
int main( )
{
cout << "Hello World !";
return 0 ;
}
```

"Hello World!" Program in Java

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

2. Less code and easy to read



# WHY DO PEOPLE USE PYTHON?



**3. Learn it quickly.**



# WHY DO PEOPLE USE PYTHON?

4. **Dynamic type.**



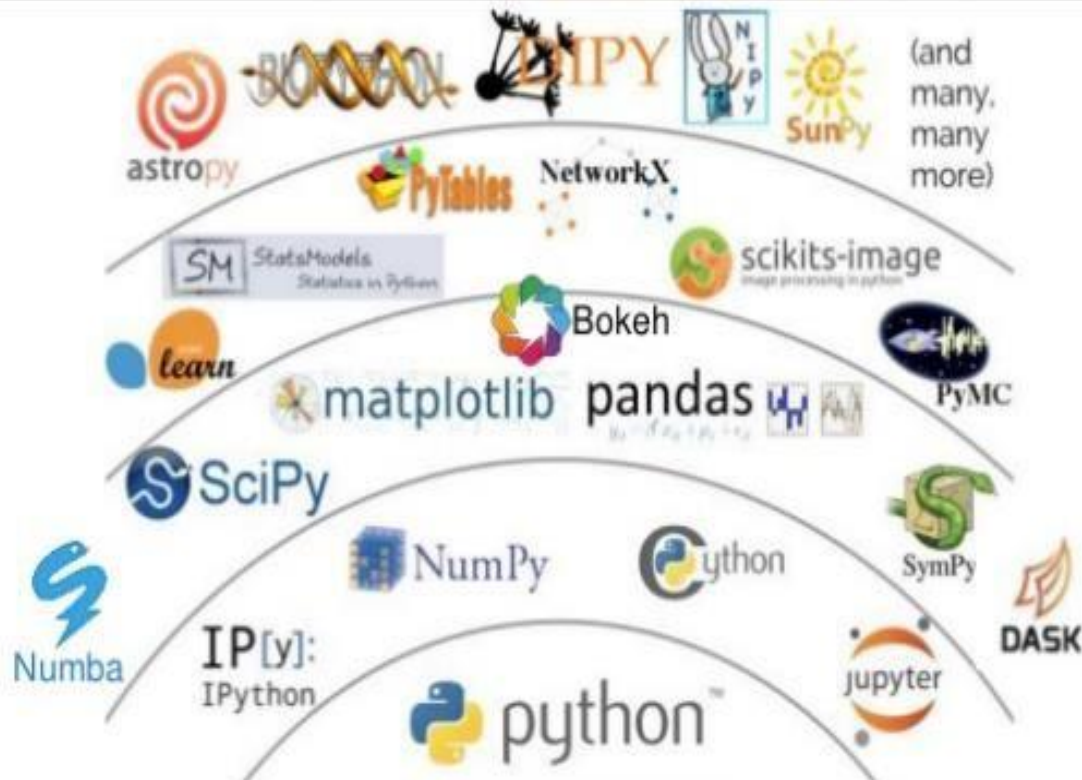
# WHY DO PEOPLE USE PYTHON?

5. Utilized by every major technology company.



# WHY DO PEOPLE USE PYTHON?

## 4. Huge amount of additional open-source libraries.



# WHY DO PEOPLE USE PYTHON?

7. **Component integration like C, C++ and Java.**



# Running Python

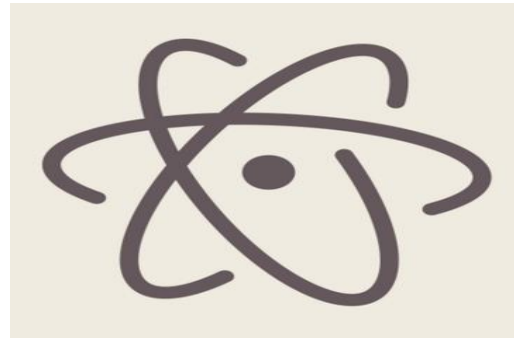




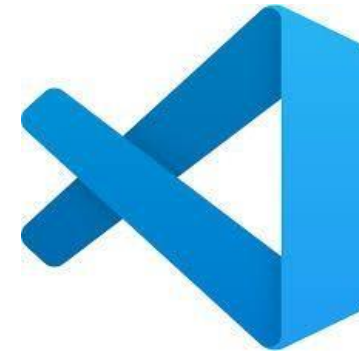
# 1-TEXT EDITORS



**Sublime Text**



**Atom**



**VS Code**



## 2- FULL IDES



**Pycharm**



**Spyder**



# 3- NOTEBOOK ENVIRONMENTS

## Jupyter Notebook

- Great for learning.
- See input and output next to each other.
- Support in-line markdown notes, Visualizations, Videos, and more.
- Special file formats that are not .py



# 4- ONLINE/ NO INSTALLATION

- <https://colab.research.google.com/>
- <https://replit.com/>



## Install Notebook

<https://www.anaconda.com/download/>

## Open Notebook online

<https://jupyter.org/try>

## Notes

- Python Case Sensitivity.
- “#” symbol use for comment.



You will find all lectures in **SU Moodle**



# Q&A

