



**Welcome To**

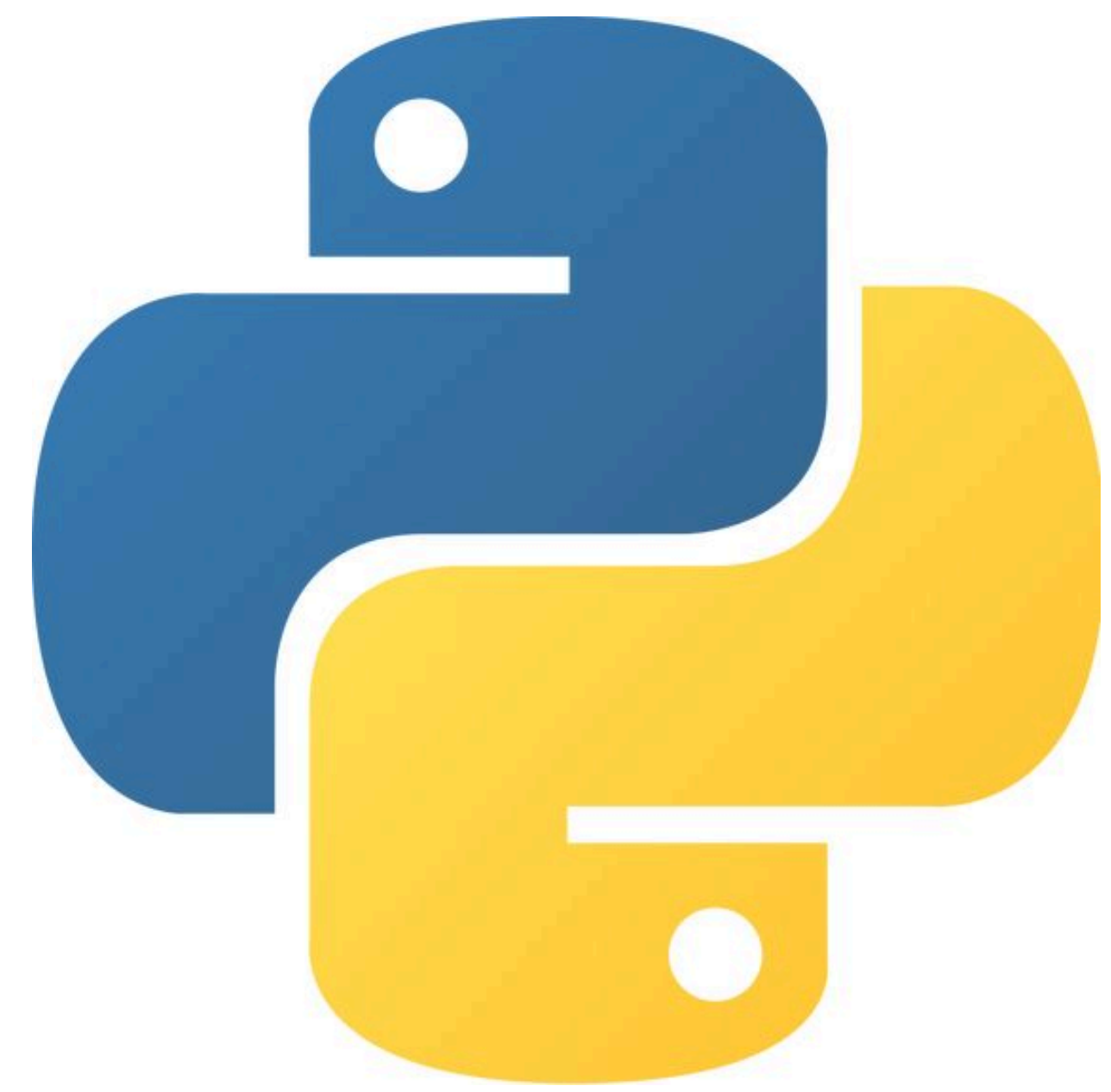
**# HELLO PYTHON**

**{Code & Conquer PYTHON!}**





# Let's Start

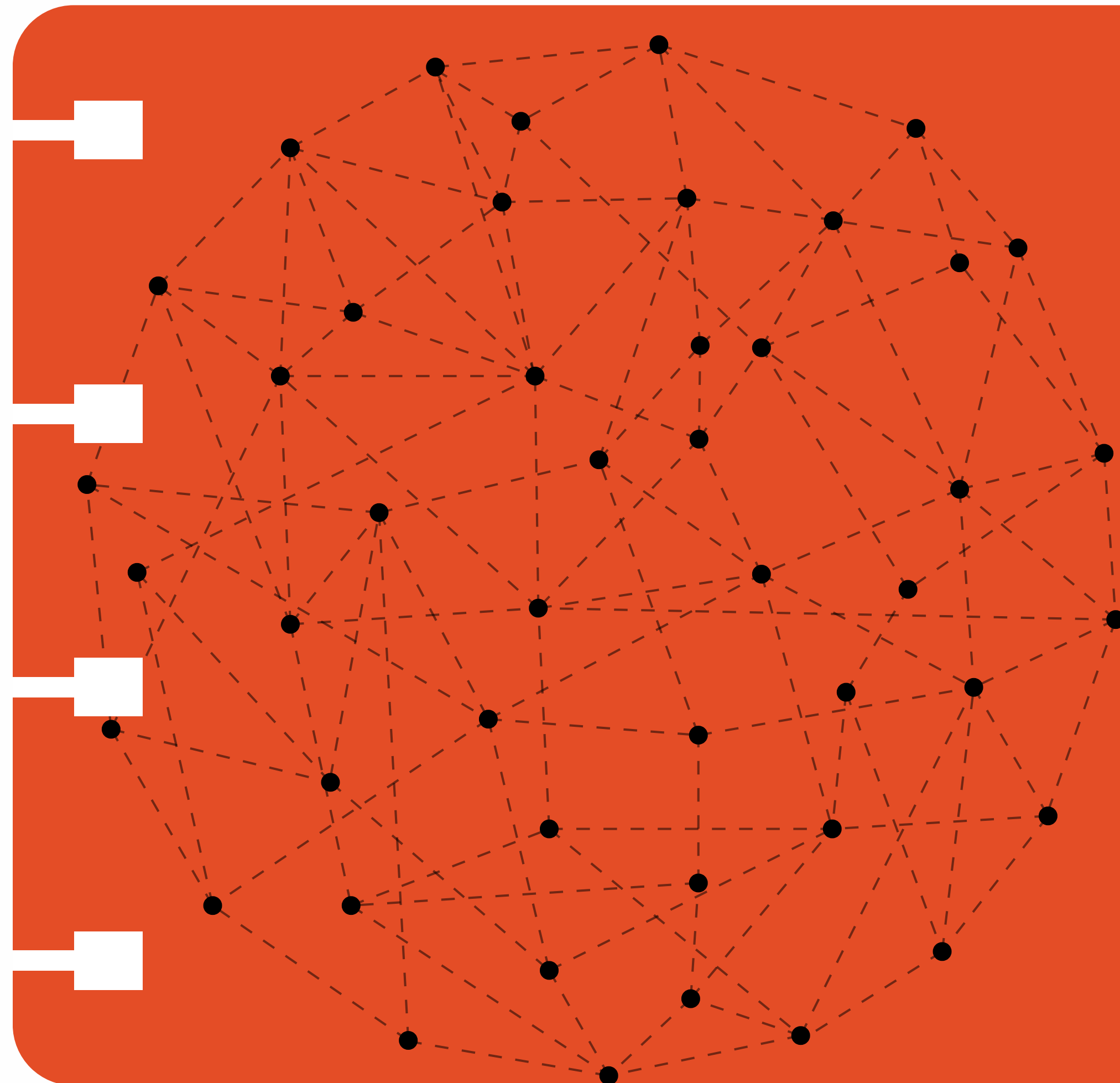


Your paragraph text



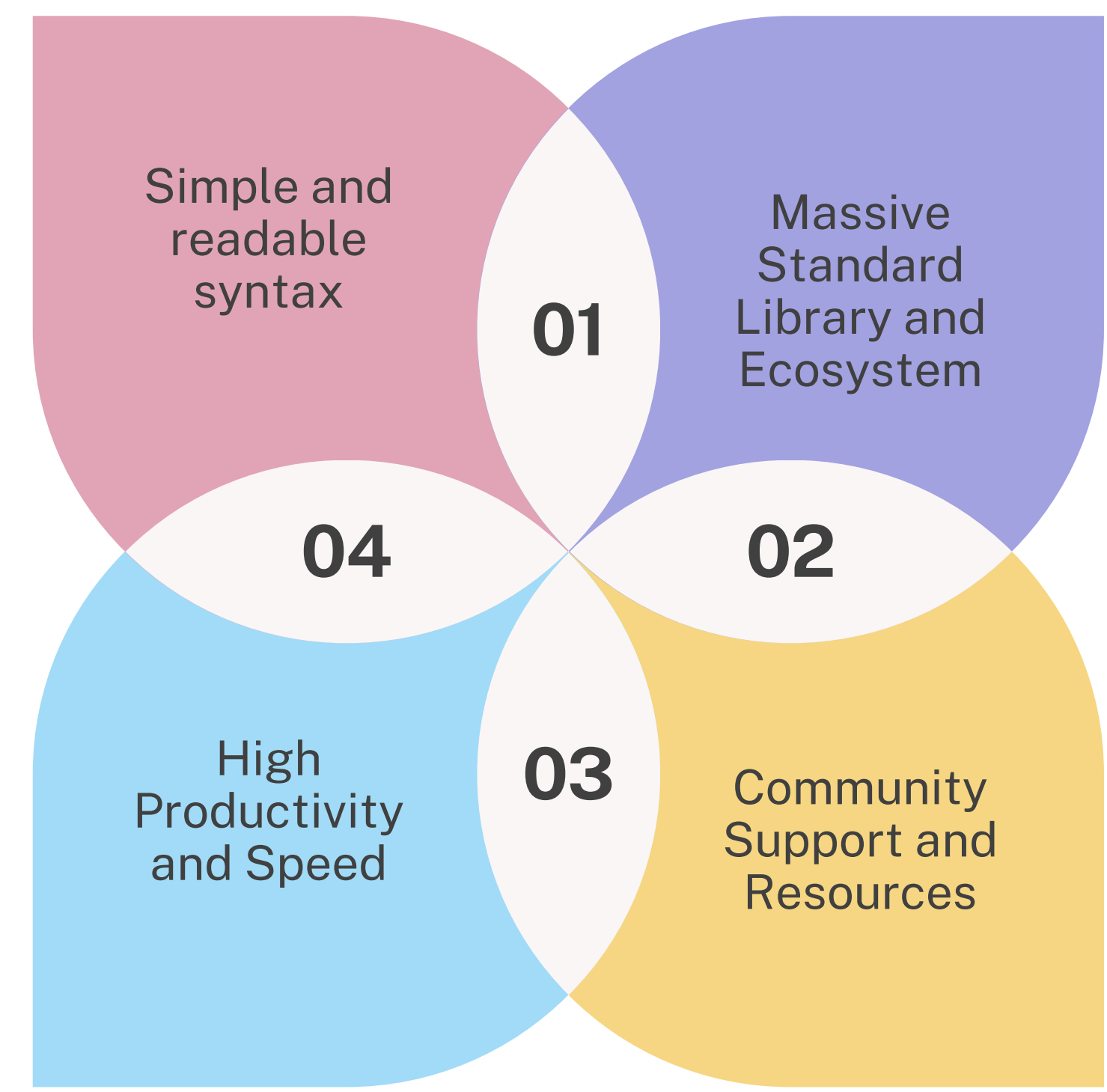
Developer Student Club

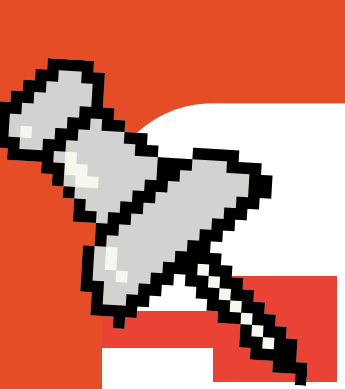
# Why Python?





# How is it different?





# Popular Apps Using Python





# Flow for Day 1

**01**

Basic Input Output

**02**

Data Types

**03**

Statements and Expressions

**04**

Branching and Decision making

**05**

Functions



# Where To Write The Code?



 Programiz

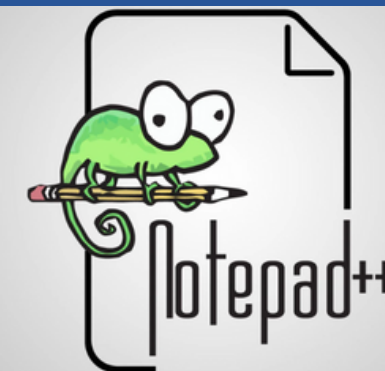


**ONLINE  
COMPILER**

VS



Visual Studio Code



**CODE  
EDITOR**



# Input and Output

- `input()`
- `print()`





# Data Types In Python



## NUMERIC TYPE

- **int:** Represents whole numbers (e.g., 5, -12, 1000).
- **float:** Represents floating-point numbers or decimal values (e.g., 3.14, -0.001, 2.0).
- **complex:** Represents complex numbers with a real and imaginary part (e.g.,  $2 + 3j$ ,  $-1 - 2j$ ).

## SEQUENTIAL TYPE

- **list:** An ordered, mutable collection of items (e.g., [1, 2, 3], ['apple', 'banana']).
- **tuple:** An ordered, immutable collection of items (e.g., (1, 2, 3), ('a', 'b', 'c')).
- **range:** Represents an immutable sequence of numbers, commonly used in loops (e.g., range(5))

## TEXT TYPE

- **str:** Represents a sequence of characters (strings) (e.g., "hello", 'Python').

## MAPPING TYPE

- **dict:** A collection of key-value pairs. (e.g., {'name': 'Alice', 'age': 25})



# Data Structures In Python



List

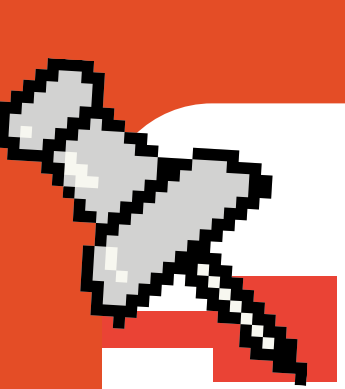
Tuple

Set



Dictionary



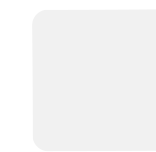
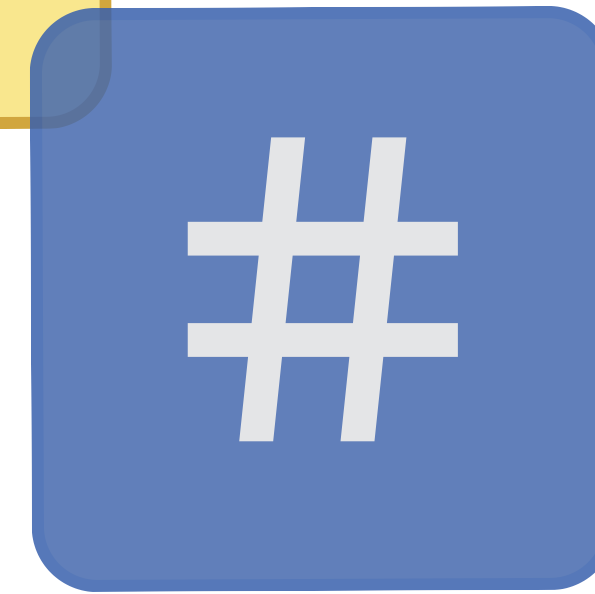
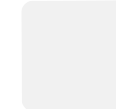
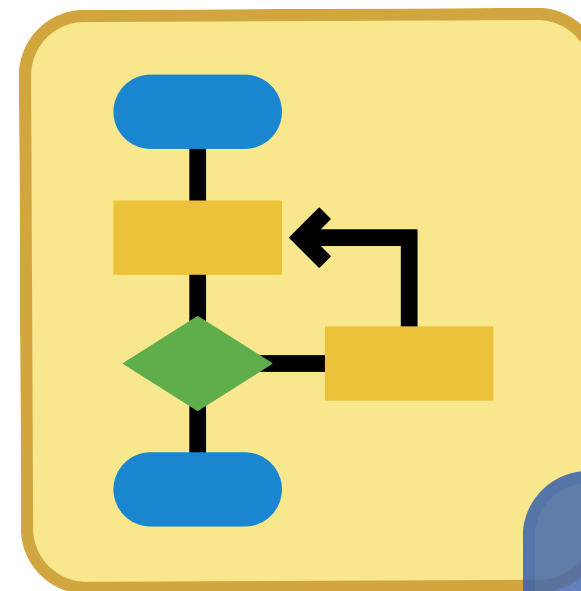


# How To think?



## USE FLOWCHARTS

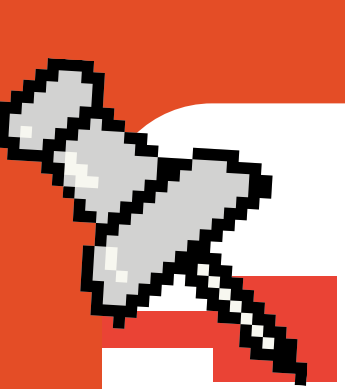
A wonderful serenity has taken possession of my entire soul, like these sweet mornings of spring which I enjoy with my whole heart.



## WRITE COMMENTS

A wonderful serenity has taken possession of my entire soul, like these sweet mornings of spring which I enjoy with my whole heart.

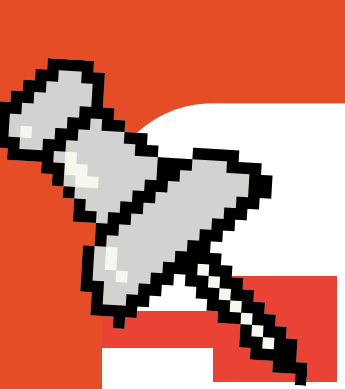




# Statements And Expressions

- An expression always evaluates to a value
- A statement does not return a value, but it performs an action





# Branching and Decision making

- if
- if else
- if elif else
- nested if





# LOOPS, LOOPS, LOOPS...

- The For Loop
- The While Loop





# For Loop(counting loop)

Designed to process the items of any sequence one by one(lists & strings)

```
for <variable> in <sequence>:  
    statements_to_repeat
```

## range()

- range(stop)
- range(start,stop)
- range(start,stop,step)



# While Loop(conditional loop)

Designed to iterate till a condition remains *true*

```
while <logicalExpression> :  
    loop-body
```







# Functions



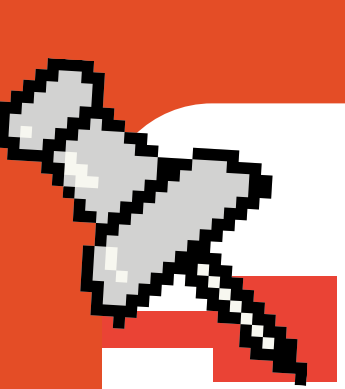


# Functions

A function is a piece of code written to carry out a specified task.

- Built-in
- User Defined



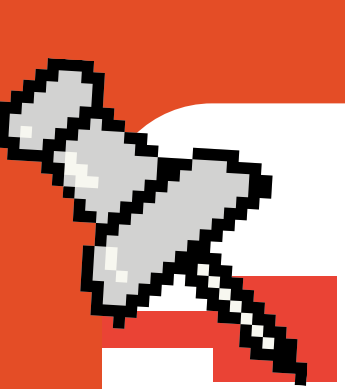


# Built-in Functions

These are pre-defined functions in Python that can be used without additional code.

- `print()`
- `input()`
- `range()....`





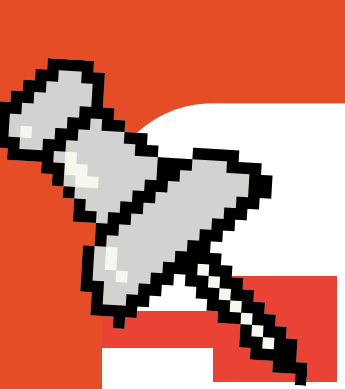
# User-Defined Functions



These are custom functions created by the user to perform a specific task.

```
def function_name(<parameters>):  
    # function body
```





# Learning Resources:

- Pen Testing from **freecodecamp(YouTube)**
- Cool Cybersecurity experiments – **NetworkChuck(YouTube)**
- CyberSec course from **CISCO** – for indepth learning
- Cool Cybersecurity experiments which you can follow along to and learn – **TechRaj156(YouTube)**





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**Ever heard of this??**



# INTRODUCTION TO **OBJECT ORIENTED PROGRAMMING**



Encapsulation

Polymorphism

Abstraction

Inheritance

Class

Object

Attributes





# Social media





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JSS Science and Technology University,  
Mysore (Mysuru)

