

## What is Python?

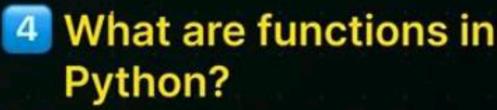
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- Python is a high-level, interpreted, interactive, and object-oriented language. It uses English keywords frequently. Whereas, other languages use punctuation, Python has fewer syntactic constructions.
- Python is designed to be highly readable and compatible with different platforms such as Mac, Windows, Linux, Raspberry Pi, etc.

## 2 How is Memory managed in Python?

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- Python private heap space. All Python objects and data structures are located in a private heap. This private heap is taken care of by Python Interpreter itself, and a programmer doesn't have access to this private heap.
- Python memory manager takes care of the allocation of Python private heap space.
- Memory for Python private heap space is made available by Python's in-built garbage collector, which recycles and frees up all the unused memory.

# 3 What is the difference between lists and tuples?

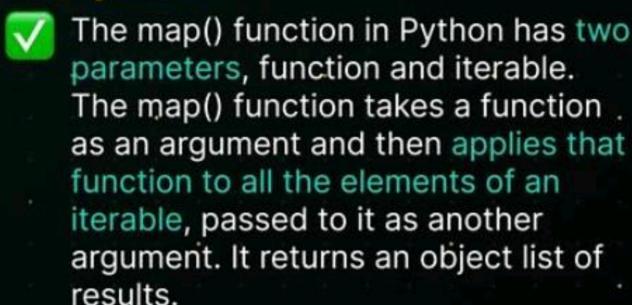
#### List Tuple Lists are mutable Tuples are immutable Lists are usually Tuples are faster slower than than lists tuples . Lists consume a Tuples consume lot of memory less memory Lists consist of Tuples do not consist of many many built-in functions. built-in functions. Syntax Syntax tup\_1 = (10, 'Intellipost', 20) list 1 = [10, 'Intellipant', 20]



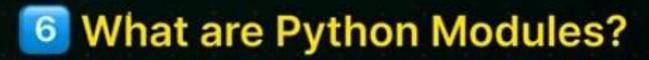
A function is a block of code which is executed only when a call is made to the function, def keyword is used to define a particular function as shown below:

```
def function():
print("Hi, Welcome to Intellipaat")
function(); # call to the function
```

### What is a map function in Python?



```
def calculateSq(n):
    return n*n
    numbers = (2, 3, 4, 5)
    result = map( calculateSq, numbers)
    print(result)
```





Files containing Python codes are referred to as Python Modules. This code can either be classes, functions, or variables and saves the programmer time by providing the predefined functionalities when needed. It is a file with ".py" extension containing an executable code.

- -os
- **sys**
- data time
- → math
- random
- -JSON