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What is python   
  
1. What is python  
The Python language type is a high-level, dynamically typed one that is among the most popular general-purpose programming languages. It is among the world’s fastest-growing programming languages and is used by software engineers, mathematicians, data analysts, scientists, network engineers, students, and accountants.   
  
Python is an Interpreted, object-oriented, and high-level programming language. It is called an interpreted language as its source code is compiled to bytecode which is then interpreted. CPython usually compiles Python code to bytecode before interpreting it.  
  
2. Why python  
Python’s features, among other things, are what make it popular. For instance, It supports dynamic typing and dynamic binding. In languages like Java, C and C++. you cannot initialize a string value to an int variable and in such cases, the program will not compile. Python does not know the type of the variable until the code is executed.  
  
Python has an easy syntax that enhances readability and reduces the cost of code maintenance. The code looks elegant and simple.  
  
Here’s a summarized list of why Python is popular:  
  
The Python framework also has modules and packages, which facilitates code reusability.  
Python is open source. You can download it for free and use it in your application. You can also read and modify the source code.  
No Compilation of the code – the cycle of Edit-test-debug is fast   
Supports exception handling. Any code is prone to errors. Python generates exceptions that can be handled hence avoids crashing of programs.  
Automatic memory management. Memory management in Python involves a private heap(a data structure that represents a queue) containing all Python objects and data structures.   
  
  
  
  
4. The interpreter:  
an interpreter is a computer program that directly executes instructions written in a programming or scripting language, without requiring them previously to have been compiled into a machine language program.  
  
Interpreters enables you to work interactively  
Programs written in a high-level language are either directly executed by some kind of interpreter or converted into machine code by a compiler (and assembler and linker) for the CPU to execute. While compilers (and assemblers) generally produce machine code directly executable by computer hardware, they can often (optionally) produce an intermediate form called object code. This is basically the same machine specific code  
  
Memory management: <https://towardsdatascience.com/memory-management-and-garbage-collection-in-python-c1cb51d1612c>  
  
8. VS code extensions..  
  
[https://www.google.com/amp/s/www.geeksforgeeks.org/top-10-vs-code-extensions-for-python/amp/](https://www.google.com/amp/s/www.geeksforgeeks.org/top-10-vs-code-extensions-for-python/amp/?authuser=0)