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Interpreted
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Translators ========== What is translator? translator is a software, which converts instructions of one language to another langauge. Types of translators ========== 1. Interpreter 2. Compiler Interpreter ========== Interpreter is a translator, which translate and execute instructions line by line Interpreter perform the following operations 1. read 2. verify syntax 3. translate 4. execute if there is an error in one line, interpreter stops translation and execution. Compiler ======== Compiler is a translator, which translates whole program and execute. Compiler perform the following operations 1. read 2. verify syntax 3. translate 4. store 5. execute Compiler stop translating and storing if there is an error in one line it does not stop tanslating and verify syntax. compiling shows all the errors exists within program. debugging is easy. What is difference between interpreter and compiler?
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Interpreter Compiler Interpreter translate and execute compiler translate whole program instructions line by line and execute Intepreter stop translating compiler stop translating and storing and executing if there is an error if there is an error, it continue verifing syntax Interpreter shows only one error compiler shows all the errors Interpreter cannot store translated compiler store translated code. these code. can be executed one or more than one time
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Python is compiled and Interpreted language Python compiler generate bytecode. This byte code is inrerpreted and executed by interpreter(PVM). which translate bytecode into executable machine code.
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Extensible and Embeddable
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Python embeddable language, it allows to use python code inside other programming languages. Using other languages code inside python is extensible.
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High Level and Portable
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All high level programming langaues are in simple english High level programming languages are portable. portability allows to develop and run python applications irrespective of hardware or operating system.
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Object Oriented
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Python is object oriented programming language. object oriented programming is not language, it is a programming paradigm which defines set of rules and regulations for writing program. python is multiparadigm programming language 1. POP (Procedural Oriented Programming) 2. MOP (Modular Oriented Programing) 3. OOP (Object Oriented Programming)
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Python Software Versions
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Python Language is developed in 3 versions 1. Python 1 1.0,1.2,1.3,1.4 2. Python 2 2.0,2.1,2.2,2.3, 3. Python 3 3.0,3.1,3.2,3.3,..... 3.13.2 Python 1, 2, 3 are called major versions of python langauge there is no compatability between major versions (there is no forward and backward compatability) python 2 is released in year 2000 and stoped in the year 2020 Python 3 is released in year 2008 Current version of python is python 3.13.2 3 ==> major version 13 ==> minor version 2 ==> micro version How to install python software? Working Modes Python IDE's Python software provides Python Distributions Python Implementations telegram: codewithsatishgupta