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The fundamental question pertaining to computer science is, “What can be computed and/or calculated?”

Machine language is a binary language which consists of 0 and 1.

A, Ascii Value is 65, and the binary number is 1000001.

Syntax is a set of rules that defines which sequence of characters and symbols constitute a well-formed string.

Semantics is a well-formed string that have a meaning and saying what exactly is the meaning?

There are ways things can be syntactically correct and semantically correct.

There is an example of using, “noun, verb, noun” within a correct sentence.

An example is: Car is vehicle. Car is the noun, the word “is” is the helping verb, and vehicle is a noun. This would be syntactically correct because a car is a vehicle in actuality.

Another example is: Car is hotel. The car is the noun, the word “is” is the helping verb, and hotel is a noun. This would be semantically correct because a car is a noun and a hotel is a noun. The statement does not make any sense due to a car not being a hotel, therefore this would be considered semantically correct.

Python can be worked in an Interactive Mode and Scripting Mode.

A token is a single or smallest element of a programming language. It is also known as lexical unit. The types of tokens are keywords, identifiers, literals, operators, and punctuators.

Keywords are reserved words that have special meanings.

Python 3.6 or lower have 33 keywords. Python 3.7, 3.8, and 3.10 have 35 keywords. Python 3.9 have 36 keywords.

Keywords includes words such as “True” and “False.” The letter “T” in True, must be capitalized and the letter “F” in False must be capitalized. There are keywords called None, if, else, elif while, for, break, continue, with, class, pass, and, or, not, is, in, try, except, finally, raise, assert, from, as, import, def, return, yield, global, nonlocal, lambda, del, async, await.

Identifier is a name that is given to a function, variable, object, class or module. The rules of identifiers is that it should be a combination of a letter, and those letters can be a-z and A-Z.

Digits which are digits between 0-9, and an underscore or “\_”. Identifiers should not start with a digit.