Primitive Data Type

Definition - What does *Primitive Data Type* mean?

A primitive data type is either a data type that is built into a programming language, or one that could be characterized as a basic structure for building more sophisticated data types. Programmers will often be immediately familiar with the primitive data types used in coding, which do not involve more sophisticated data sets for effective representation.

Techopedia explains *Primitive Data Type*

Examples of primitive data types include integers, floating point numbers and individual characters in text. Each of these primitive data types is an example of something that doesn't require a large amount of data for representation. Characters simply correspond to a single reference point in an ASCII chart. Integers are numbers that do not need complex identifiers such as exponents and decimal points. Boolean values require only a binary choice between two possible values.

Other data types may or may not be primitive, depending on the design of a programming language or system. One common example is strings. A string variable is a collection of characters put together into a single dynamic variable. Programming languages work on strings to amend them as necessary. In this case, if a string is built into a program or has a particular kind of support, it could be called a primitive data type. However, it does not share some of the basic design elements of the primitive data types discussed above.

Other specific explanations of primitive data types include the idea that a primitive data type cannot be broken down into a simpler data type. Others explain primitive data types by contrasting them with user-defined classes, more sophisticated classes that are created by users, whereas primitive data types have already been created by the platform or interface that the programmer or developer is using. These explanations help to explain why one specific type of variable may be considered a primitive data type in one language but not in another. Other experts may contrast primitive data types with derived data types, which are created using collections of primitive data types. As a result, they can be broken down into more basic elements than the primitive data types.

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