1. What is the definition of type? (Hint: there are two parts to the definition)

A type specifies which operations can be performed on a given value, as well as the range in which the value must fall. Ints and doubles, for example, can be used to execute mathematical operations and are confined to a certain number of characters, but strings cannot be added, subtracted, divided, or divided in any way and can be made up of any characters.

A type determines what operations can be performed on selected values.
There are two pieces of information given by a type:

- Range of valid values.
- Valid operations on those values.

There are 5 basic types

- Int: whole number
- double: holding fraction
- char: for a holding a single letter
- bool: yes/no, true/false
- std: string: sequence of chains

2. What is the difference between a strongly and weakly typed high-level programming language?

Strongly typed languages detect errors such as performing a mathematical operation on a text, whereas a **weakly typed languages** would continue to run but fail to produce a value.

3. Why do applications written in a strongly typed high-level programming language usually have fewer bugs than applications written in weakly typed high-level programming languages?

Strongly typed languages detect problems in which types are inaccurate, making them easy to find and rectify if they exist in the code. **A weakly typed language** might miss these errors, resulting in more defects being introduced as code is written.

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