1 – Programming Basics

Naming and Storing Data

Data is stored in memory addresses and these memory addresses can be assigned names to make programming easier. These names are called variables (or constants).

Constants and Variables

The only difference between these two language features is that a constant cannot change during the execution of a program; a variable can change.

The two main reasons for constants are that they improve the readability of the code as you can be sure that that value will stay the same everywhere in the code and they can also speed up program if the language is compiled since they are known to not change.

Data Types

Some common data types are:

- Integer
- Real/Float
- String
- Boolean
- Character
- Date/Time
- Pointer/Reference
- List/Array
- Dictionary

Built-In and User-defined Data Types

There are many built-in data types such as those listed above.

You can define your own data types in language-specific ways. In some langauges there is a struct keyword that allows you to do this. Alternatively, you could use a small object or a dictionary to store a group of different data types that are related.