

# Glossary

## **aliases**

Multiple variables that contain references to the same object.

## **clone**

To create a new object that has the same value as an existing object. Copying a reference to an object creates an alias but doesn't clone the object.

## **delimiter**

A character or string used to indicate where a string should be split.

## **element**

One of the values in a list (or other sequence). The bracket operator selects elements of a list.

## **index**

An integer variable or value that indicates an element of a list.

## **list**

A collection of objects, where each object is identified by an index. Like other types `str`, `int`, `float`, etc. there is also a `list` type-converter function that tries to turn its argument into a list.

## **list traversal**

The sequential accessing of each element in a list.

## **modifier**

A function which changes its arguments inside the function body. Only mutable types can be changed by modifiers.

## **mutable data type**

A data type in which the elements can be modified. All mutable types are compound types. Lists are mutable data types; strings are not.

## **nested list**

A list that is an element of another list.

## **object**

A thing to which a variable can refer.

## **pattern**

A sequence of statements, or a style of coding something that has general applicability in a number of different situations. Part of becoming a mature Computer Scientist is to learn and establish the patterns and algorithms that form your toolkit. Patterns often correspond to your "mental chunking".

## **pure function**

A function which has no side effects. Pure functions only make changes to the calling program through their return values.

**sequence**

Any of the data types that consist of an ordered collection of elements, with each element identified by an index.

**side effect**

A change in the state of a program made by calling a function that is not a result of reading the return value from the function. Side effects can only be produced by modifiers.