

Types of errors

There are 3 types of error when writing software:

Syntax Error

A syntax error occurs when the programmer fails to obey the rules of the programming language. For example:

- Using the wrong case.
- Not placing punctuation.
- Punctuation is in the wrong place.
- Spelling mistakes.

Logic Error

Logic error occurs when a mistake in the algorithm results in the program not doing what it is intended to do. For example:

- Mistakes in mathematical formula.
- Misplaced brackets.
- Instructions in the wrong order.

This may result in infinite loops or unexpected results.

Run-time Error

The program crashes/stops because the operation the computer is asked to do is impossible.

The program crashes because the CPU cannot execute one of the instructions in the code.

- Programmer constructs instructions that the computer is unable to carry out. Eg. Dividing a number by zero.
- Unable to find a file