Error in C++:

An error in C++ can be defined as a mistake or a fault in a program that results in unexpected behaviour or undefined behaviour. Such mistakes can be caused by programmer like logical, syntactical mistakes or are machine dependent like out of memory.

Types of error:

Depending on the phases involved in forming an executable from a program source, error can be classified as

1. **Compile time error:**

Compile time errors are detected during compilation phase. Compiler detects any error in the program and reports the same. Syntactical error and Semantic errors are compile time errors.

Examples of compile time errors:
- variable not declared
- Non const function called by const object.

2. **Link time error:**

Errors detected by linker during linking phase of object files with libraries are link time error.

Examples of link time errors:
- multiple definition error
- Undefined reference to variable.

3. **Run time error:**

Errors that happen during execution of the program are called run time errors. They are normally caught by the environment and the process is killed by sending SIGKILL signals. Logical error causes run time error.

Examples of run time errors:
- causes of segmentation fault like divide by zero
- out of memory