1 : Compile time error  : errors found by the compiler (can be classified based on wich rule they violate, like type error or syntax error).

Link time error : error found by the linker when it it is trying to combine object files into an executable program.

Run time error : happen during the execution of the program. Can classify error as errors detected by computer(hardware, operating system), a library (ex : standard library) or detected by user code.

Logic errors : error found by the programmer looking for the causes of erroneous results.

2 : We can ignore misbehaving hardware, system software.

3 : Completed programs should produce the desired results for all legal inputs and give reasonable messages for illegal inputs.

4 :

- Organize software to minimize errors.

- Eliminate most of the errors we made through debugging and testing.

- Make sure the remaining are not serious.

5 : Because debugging is tedious and takes time.

6 : Syntax error exemple : a grammar error in c++ rules.

- forget a semi colon.

- mettre en majuscule un type

- mal reecrire un nom de variable

- dont put curly brace after a function

- pas fermer une parenthese

7 : Type error : error between the variable type and what you try to assign to it

* Try to divide a string
* Feed wrong type argument to a function

8 : Linker error : Mismatch between translation unit or something not declared

* If we use a declaration of an undefined function
* Multiple declaration of the same function name
* Misspelling a function name

9 : Logic error : When the program doesn’t do what we wanted him to do

* Forget to add a return value
* Using wrong operand
* Forget to create variable

10 :

11 : By estimation, to answer it ourselves on a paper sheet and try to resolve it and understanding it well enough.

12 :