Answer on Question#39566 - Programming – C++

A **black box** is a device, system or object which can be viewed in terms of its input, output and transfer characteristics without any knowledge of its internal workings. Its implementation is "opaque" (black). Almost anything might be referred to as a black box: a transistor, an algorithm, or the human brain.

Advantages of Using Black Box Modules:

Black box modules are advantageous because of their:

- **Simplicity**. Designer and programmers can understand a module without having to understand the whole system. Independent modules are easier to build.
- **Maintainability**. Programmers can change a module without causing a ripple effect. Volatile design decisions can be hidden.
- **Portability**. Environmentally sensitive design decisions (e.g., DBMS) can be hidden.
- **Reliability**. The inability of other modules to disrupt the internals of a black box makes the design more reliable and less prone to failure.

It is hard to find any disadvantages of using black box principle. But one of them can be the following: if you use some system/device and don’t know the principles how it works and how it is built, you can break it by making something that the system/device is not designed for.