VRTek

Senior C++ Developer

Test task: "Evil Corporation"

Evil Corporation

Having gained access to the Evil Corporation API, like cyber cowboy, you need to establish a mining farm and start buying rare items from dark traders.

API and "mining algorithm" - see attachments…
- api\api.dll
- api\api.h
- src\btc_miner.h

Jokes aside, this feels like a criminal affair. This is why you will need to work safely and swiftly, especially since the last programmer has disappeared, leaving some legacy code behind. The file btc_miner.h contains a Class, using inheritance from it, you must use the bitcoin mining algorithm for mining. After receiving the money store it in some variable of a similar type and use its to pay for rare items. Messages about these items are incoming via evil::api.

In order to receive a message about item you must use the method of api class api::get_raw_rare. Argument of this function is pointer to a callback function. Callback function on call will allow processing of bytes array and will present enough "package message", definition of which is shown below:

Package struct
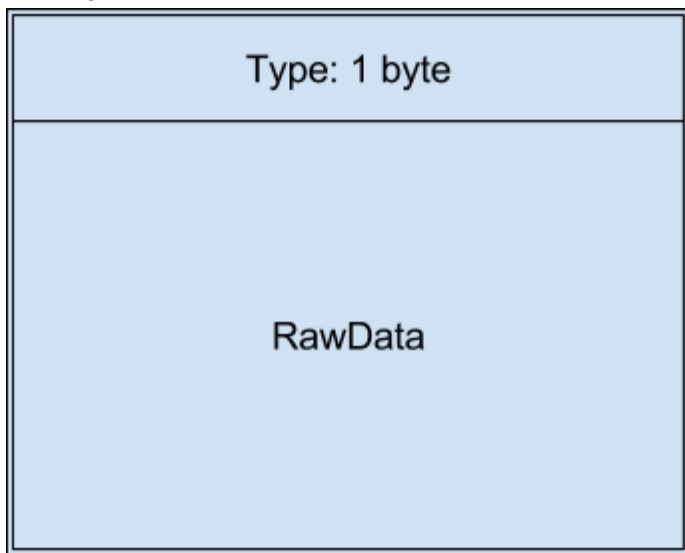
First byte of package, similar to type enumerate in enum class evil::RareType: byte, next bytes are of similar struct.

You should create a mechanism of payment for rare items from black market using " e-money".

Note:
- use VS2013+ compiler

- use maximum PC hardware performance for running the "get_btc" function
- Create projects with minimal Singleton pattern count.
- You should edit all files, except api.dll and btc_miner.h

Assessment:
- all code solutions, from naming variables to project organizational structure
- project safe threading
- work style with native APIs "outsource developers"
- application failure resilience
- app performance