**CMPE230 PROJECT-3**

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In this project, we will use QT to create a window that shows current values of some cryptocurrencies

**Part 1-) UI**

The interface is based on a 4x7 table, left column including the cryptocurrencies and the toprow including the standard currencies. Top left cell shows the current time and the other cells show the real-time value of that currency. Layouts are used to enchance the view.

**Part 2-) Source files**

Other than the mainwindow.ui file, there are 3 source codes named as: mainwindow.h, mainwindow.cpp and main.cpp.

* Main.cpp creates the QT App and fixes the size of the window.
* Mainwindow.h has the definition of functions such as updateTime() as well as some necessary variables such as geckoAPILink and QJsonObject.
* Mainwindow.cpp does the necessary action, uses 2 different timers:
  + clockTimer changes the time every second using the function updateTime().
  + APITimer updates the values once every 20 seconds via pingAPI which calls updateAPI when the respond is returned. Then all cells are updated from the json object which is gotten from the respond.

Note that insertJson(string first, string second) is used when cells are updated, just to shorten the code.

**Part 3-) Problems with the application**

I tested the application within both windows and ubuntu. However, there are a few bugs that seems to appear not very often:

* The text font might differ from computer to computer which changes the size of texts. Therefore, some cells might automatically add lines to “enchance” the display.
* SSH might create trouble while requesting data from the site.
* The application must be compiling properly, but qmake causes trouble sometimes.
* Overall, QT program is not very user friendly, interface ignoring some commands such as change text and cell size. Some variables are hard to interact, some are defined without the creator’s permission and some just do not change for no reason. I did my best to create this window but there might be problems still, I hope they won’t be a problem though.

Thank you for the lectures

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