

## PROJECT DOCUMENTATION

### General Process

The project gets information about some crypto currencies using Qt methods from an API site. The program sends a request to retrieve all crypto currencies listed in the site. In the response of the site names, ids and symbols of the currencies are listed. We parse this response to `QJsonArray` and create two maps as symbol-id and name-id. After this we find the id of the currency from either of this list using its name or its symbol. Then we send a request to the site using these ids. The response is parsed to `QJsonObject` and we traverse through this object. We retrieve the keys using the `".keys"` method and using these keys we find the corresponding value. Then we add the values to `QTableWidget`.

#### a) main.cpp:

In this file we retrieve the environment variable `MYCRYPTOCONVERT`. The file address must be in this variable. Then we read the file that contains names or symbols of crypto currencies. After reading we store these in an array. Then we create a table object. After the table is created we show it's `tableWidget` component.

#### b) table.cpp:

There is a public `QTableWidget` named `tableWidget`. Constructor creates `tableWidget` and sends a request to the api to get all the data. When a reply is received the `dataReceived` function is called. In the `dataReceived` function we create necessary maps and call the `getResponse` function. The `getResponse` function creates a link that contains the ids of currencies. And using the `get` function of Qt we send a request to the site. When the response is received, the `replyFinished` function is called. In `replyFinished` we process the information using `Json`. Then we write this information to the table.

### Ups and Downs:

We didn't know Qt perfectly so the interface is really pale. Code is a little bit messy. The panel was opening really small but we managed to make it bigger and we are proud of ourselves.

### What Could be the Improvements:

Instead of taking the input of the user from a file, the interface could be improved such that the user could directly give the input of crypto currencies to program via interface.

Salim Kemal Tirit  
Bengisu Kübra Takkin

## How We Worked?

Even though we weren't used to the QT concept before, It wasn't that hard to write the project since some of the similar codes were shared before helped us quite a lot. We worked together while speaking through other platforms.