Time and Currency Converter

**Abstract**

A time converter is a tool that helps you convert the time of one place, to that of another, using their respective time zones. For example, if you are currently in Mumbai city which follows the Indian Standard Time (UTC +05:30) and the time is 8:00 a.m., and if you want to see what time it is in London (United Kingdom) which follows the Greenwich Mean Time (UTC 00:00), you simply subtract 05:30 hrs from Mumbai’s time i.e., it is 3:30 a.m. in London when it is 8:00 a.m. in Mumbai.

A currency converter is a tool that helps you convert one currency to another. For example, if you are from the United States and you are traveling to Europe, you will need to use a currency converter to convert your US dollars into Euros.

Our group’s project plans to bring these two tools together, into one unified program, which will show the time as well as the desired currency value of the respective country.

**Worksteps**

1. We plan to create both the time convertor and the currency convertor using JavaScript.
2. Creating a currency converter in JavaScript is a relatively easy task. All you need to do is use JavaScript to create a web-based application.
3. Also, as the currency convertor is supposed to take real time exchange values into our program, we plan to use an API (Application Programming Interface), which will act like a pathway from the internet to our program for provision of real-time currency exchange data, which keeps fluctuating by-the-minute.
4. As the time convertor’s data wouldn’t be subject to change (we all know that time wouldn’t change like the currency exchange values worldwide), we plan to inculcate the code for the time convertor **into** the code of the currency converter vis-à-vis the main application.

This would ensure that both the currency value as well as the time of the desired country is provided at the same time.

1. To structure and beautify the program, we plan to use HTML and CSS.

**End User Experience**

On completion of the program, and when used by a user, we expect our program to work something like this:

1. The user will first enter the name of the country, for which he/she is expecting to convert currency value and time into that of another country.
2. Next, the user will enter the name of the country, using the drop-down menu next to the input bar, for which he/she would like to know the time and the converted currency value.
3. After he/she has made both choices, the value of currency to be converted, and the time at which he/she would like to know the time in another country, will be required to be input.
4. On completion of above steps, and clicking on “Find Currency & Time”, the output i.e., the time and the converted currency value of the other country will be shown to the user.
5. Alongside this, we also plan on adding a simple page which would display the currency values of some important exchanges across the globe.
6. Similarly, a page to display the current time of some important cities across the globe.