

Sarrif: Functional Documentation

Sarrif is an LBP-USD exchange rate application available as web, desktop, and android applications. In this document, we detail the functionalities delivered by Sarrif.

1- User Accounts

Users may use this application with or without an account. However, using it with an account provides additional functionalities: the ability to post trade offers, as well as keeping track of one's previous transactions in one table, as any transactions that are added while logged in are associated with the account.

The username should conform to the following:

- Username can contain only letters (a-z), numbers (0-9), dashes (-), underscores (_), apostrophes ('), and periods (.), and must start with a letter.
- Username must be between 3 and 20 characters
- Duplicate usernames are not allowed

The password should conform to the following:

- Password cannot contain whitespaces
- Password must be at least 8 and at most 64 characters

The user remains logged in for 4 days (unless he decides to manually log out)

2- Current Exchange Rate, Conversions, Adding Transactions

Sarrif displays the current exchange rate in the market. It has an exchange rate calculator, which calculated the value in the other currency depending on the current rate. To convert from one currency to another, input a value in one of the inputs, and the result will be displayed in the other input field.

Anyone can record a transaction. If a user is logged in, the transaction is associated with their account. The user must enter positive numbers, and select either "USD to LBP" or "LBP to USD".

3- Statistics

The user can input a start date and end date to find the statistics within this interval.

As for the plot, the user selects the interval, and an "interval" (daily, monthly, hourly, yearly) which indicates the spacing between graph points. The user is not allowed to select a start date that's after the end date, or an end date before the start date. Also, the user must not input inconsistent inputs for start date, end date, and interval, the inconsistency being that the interval is greater than (end date – start date).

The calculated statistics include, for both buy and sell rates:

- Minimum
- Maximum
- % change (24hr)

- % change (1hr)
- Volume in past 24hrs
- Average

The min, max, and average are calculated according to the same start date and end date that are used by the graph.

4- Gold and Cryptocurrencies

Live gold and cryptocurrency prices are displayed on Sarrif. These insights are cached at our server, and updated if they are older than one minute. Gold prices in both USD and LBP are displayed for several units of gold, in addition to the % change of the price.

As for cryptocurrencies Sarrif displays the top 11 currencies in the market. Displayed are the hourly, daily, and weekly % change in value. The market cap, USD price, and volume are also displayed.

5- Offers for Exchange Between Users

Anyone can view all offers, which include the following information: the type of transaction desired, the proposed amount and rate, the location of exchange, and the poster's phone number. For easier searching, the user can filter the offers by entering a specific transaction type, a location, and preferred intervals of amounts and rates. Empty fields in the filter are simply not applied.

Logged in users can post their own offers, after specifying all the mentioned information. In case they make mistakes in any of the information, they can edit an offer. If a transaction was carried out and is no longer needed to be advertised, the user may delete it.

6- Notifications

Sarrif was designed to send a notification when the exchange rate in the last hour increased by more than 5%. If it's being used on the web, on an android application, or on a desktop application, it will send a notification to alert the users. The notification is triggered whenever a transaction is added to check if the exchange rate has dropped significantly or not.

7- Accessibility

Sarrif is screen reader-friendly, which makes it accessible for blind people who navigate using their keyboard

Also, the user can choose between light mode and dark mode by toggling a switch, which helps people who are sensitive to bright light.