

# TEST PROJECT SPECIFICATION – PHP

## 1. General Guidelines

1. The purpose of this test is to help TeleTrader ascertain the qualification and skill level of the prospective candidate applying for the PHP Developer position.
2. The specification details listed below are presented in a rather broad sense leaving the candidate to fully implement his view on how certain solutions should be structured and implemented.
3. The project itself is related to TeleTrader's core business (developing applications for the financial industry), so any prior knowledge of the financial industry is an asset. If not, it's OK, you can learn it.

## 2. Assignment

Develop described application **without or with** using Laravel. Using Laravel will be considered as a plus. Making application as Single Page Application this will be also considered as a plus, but do not do it if you don't have experience with such applications. If everything else is good, this is not important – can only help in selection between similar candidates.

**Please read carefully all functional requirements. Missing some of them will for sure lead to disqualification.**

## 3. Functional requirements

1. Users have a simple web page with a header and a body with the live price updates for some of the most popular crypto currencies (Bitcoin, Ethereum, etc). See **Figure 1**.
2. Web page header contains "Login" button. See **Figure 1**.
3. Users can only see the initial and details page until they click on the Login button.
4. After clicking the login button users are logged in forever and state should be persisted upon application close. There's no logout functionality.
5. Users can come to the Details page from both Home and Favorites page, by clicking on the Symbol name in the table.
6. On the Details page users can see information for selected currency pairs. This page should not have live updates. Logged in users should have functionality to toggle favorite status of the current currency pairs. See **Figure 2**.
7. Favorite currency pairs should be persisted upon application close.

8. When logged in users can visit the Favorites page. This page contains information about currencies that logged in users added as favorites on the Details page. This page should have live updates. See **Figure 3**.

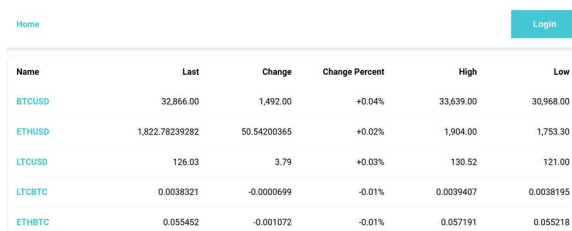
#### 4. Implementation requirements

1. Application should use public Bitfinex WebSocket data feed to receive crypto currency price updates. Consult the Bitfinex official documentation on the actual message format and protocol:
  - a. <https://docs.bitfinex.com/v2/docs/ws-general>
  - b. <https://docs.bitfinex.com/v2/reference#ws-public-ticker>
2. Using following API, take first 5 currency pairs and subscribe to their updates:
  - a. <https://docs.bitfinex.com/v1/reference#rest-public-symbols>
3. Display the latest update message for all subscribed currency pairs. Show these fields from the received updates in a table:
  - a. Symbol, Last price, Daily Change, Daily Change Percent, Daily high, Daily low
4. Use following API to obtain details data for specific currency pair:
  - a. <https://docs.bitfinex.com/v1/reference#rest-public-ticker>
5. Show these fields for the specific currency pair details:
  - a. Symbol, Last price, Daily High, Daily Low
6. Feel free to make the app look and feel as you wish. You can also use an external UI library to quickly generate page layout and components.
7. Simulate Login functionality without any interaction with the user. For example, as a simple Boolean flag.

#### 5. Figures

This section contains page screenshots in order to provide help needed for page structuring and better understanding of the listed tasks.

**Figure 1. Home Page**



The screenshot shows a web interface with a 'Home' link and a 'Login' button. Below them is a table with 6 columns: Name, Last, Change, Change Percent, High, and Low. The table lists five cryptocurrency pairs: BTCUSD, ETHUSD, LTCUSD, LTCBTC, and ETHBTC, along with their respective price data.

| Name   | Last           | Change      | Change Percent | High      | Low       |
|--------|----------------|-------------|----------------|-----------|-----------|
| BTCUSD | 32,866.00      | 1,492.00    | +0.04%         | 33,639.00 | 30,968.00 |
| ETHUSD | 1,822.78239282 | 50.54200365 | +0.02%         | 1,904.00  | 1,753.30  |
| LTCUSD | 126.03         | 3.79        | +0.03%         | 130.52    | 121.00    |
| LTCBTC | 0.0038321      | -0.0000699  | -0.01%         | 0.0039407 | 0.0038195 |
| ETHBTC | 0.055452       | -0.001072   | -0.01%         | 0.057191  | 0.055218  |

Home Favorites

| Name                   | Last      | Change     | Change Percent | High      | Low       |
|------------------------|-----------|------------|----------------|-----------|-----------|
| <a href="#">BTCUSD</a> | 32,877.00 | 1,488.00   | +0.04%         | 33,639.00 | 30,968.00 |
| <a href="#">ETHUSD</a> | 1,825.60  | 54.10      | +0.03%         | 1,904.00  | 1,753.30  |
| <a href="#">LTCUSD</a> | 126.32    | 4.08       | +0.03%         | 130.52    | 121.00    |
| <a href="#">LTCBTC</a> | 0.0038322 | -0.0000698 | -0.01%         | 0.0039407 | 0.0038195 |
| <a href="#">ETHBTC</a> | 0.055492  | -0.001032  | -0.01%         | 0.057191  | 0.055218  |

**Figure 2. Details Page**

Home [Login](#)

| Symbol | Last price | High      | Low       |
|--------|------------|-----------|-----------|
| BTCUSD | 32,781.00  | 31,041.00 | 33,639.00 |

[Add to favorites](#)

Home Favorites

| Symbol | Last price | High      | Low       |
|--------|------------|-----------|-----------|
| BTCUSD | 32,781.00  | 31,041.00 | 33,639.00 |

[Remove from favorites](#)

**Figure 3. Favorites Page**

Home [Favorites](#)

| Name                   | Last      | Change   | Change Percent | High      | Low       |
|------------------------|-----------|----------|----------------|-----------|-----------|
| <a href="#">BTCUSD</a> | 32,749.00 | 1,419.00 | +0.04%         | 33,639.00 | 30,968.00 |
| <a href="#">ETHUSD</a> | 1,822.30  | 54.30    | +0.03%         | 1,904.00  | 1,753.30  |

Home [Favorites](#)

| Name                   | Last      | Change   | Change Percent | High      | Low       |
|------------------------|-----------|----------|----------------|-----------|-----------|
| <a href="#">BTCUSD</a> | 32,732.00 | 1,402.00 | +0.04%         | 33,639.00 | 30,968.00 |
| <a href="#">ETHUSD</a> | 1,821.80  | 53.80    | +0.03%         | 1,904.00  | 1,753.30  |