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# Software Specifications

**For**

*Crypto-reports App*

**Version 1.0 approved**

**5<sup>th</sup> of April 2023**

## ***1. Development model***

The application will be implemented following REST API as software architecture and using Scrum methodology as the method to work on software development.

## ***2. User requirements – functional and non-functional ones***

- A user can register on the app using username, password with 8 chars as minimum length, phone number and email.
- A user can login using username and password.
- Dashboard page of the app is accessible only for the logged in users.
- Dashboard has a specified clickable image about exchange rates, orders, trades and symbols.
- There is a footer and a header on each screen of the app after user logs in.
- Exchange rates page will show on a table format the exchanges rates of bitcoin with Euros.
- There is a profile page where user can update his personal information and also the value of API key that is connected with his Bitcoin account.
- Orders page is the page which shows symbol id, time in datetime format, asks and bids for each symbol.
- Symbols page will show in a table fields like exchange id, asset base, asset quote, price etc.
- Trades page shows a table with the following information: time, symbol, price, size and taker-side (SELL | BUY).
- There are two different roles on the system: user and admin.
- Admin is a user that has also access on users administration page. Admin can edit the value of the API key for each user.
- The data about bitcoin will be taken using CoinAPI.
- App should be secured about user credentials. Password should be encrypted.
- App should be fast on responses when it goes on production. Response should be less than 1second.
- User authentication should be done using JWT.

### ***3. Application specifications***

The app has a REST API architecture, one for frontend and another one for backend. Frontend will be implemented using Angular and Backend will be implemented using .NET Core. Backend APIs should be integrated with CoinAPIs and will grab information that is needed according to requirements. User authentication will be done using Json Web Token with an expiry time and encrypted. RDBMS that will be used is Microsoft SQL Server. The app does not use cache on this phase of development. It supports error handling if something is wrong and showing some popup alert information to the user.