Compra-Venta
Data Dictionary

Processes:

Process Name: 1.1 Registration system

Description- This process takes information from a user and creates a new entry in the user database if that user's email does not already exist in the database.

Inbound Data flow- User Information, User info insertion status

Outbound Data flow- Insert / Manipulate User info, Registration Status

Process Name: 1.2 Sign in authentication system

Description- In this process already registered users can log in into the system. In this process, the system verifies the details sent by the user with the credentials of that user in the user's database.

Inbound Data flow- User info, Email and password (login info)

Outbound Data flow- Request User info, Login Status

Process Name: 1.3 Password Recovery System

Description- This process provides existing users with the feature to change the current password and the new password will be sent to users email id which can be used to log in into the system.

Inbound Data flow- Password recovery request

Outbound Data flow- Update password, New Password mail

Process Name: 2.1 Charts data fetch system

Description- This system takes the user's request of chart data and sends that request to Binance api / socket. The binance api returns the coin prices along with historical data and the system is expected to return the chart data back to the user.

Inbound Data flow- Coin prices, Historical data , Request chart data

Outbound Data flow- Request Coin Price, Historical Data, Chart Data sent.

Process Name: 2.2 Prediction System

Description- This process takes the user's request for the prediction for the price of a given coin pair and predictions in the form of a chart is returned along with a predicted range in order to be more accurate.

Inbound Data flow- Coin pair, request predictions, recent prices

Outbound Data flow- Request recent prices, Predictions

Process Name: 3.0 Transaction system

Description- This process takes up the user's request for a new order transaction in particular a coin pair. The process then validates the wallet in the user's database whether the user contains that particular currency to make a transaction. This process then requests for current base price and asset price and all the parameters in order to complete the transaction. The transaction is stored in the transaction database.

Inbound Data flow- New Order, Coin Price, User and wallet info, Transaction record

Outbound Data flow- Transaction status, insert / manipulate order, request current coin price, user and wallet info.

Data flows-

1. **Login Info**
   - **Source Process:**
   - **Destination Process:** 1.2 Sign In Authentication
   - **Description:** This data contains the information required while signing-in to respective accounts .
   - **Data Structure:**
       Email
       Password

2. **Registration Info**
   - **Source Process:**
   - **Destination Process:** 1.1 Registration
   - **Description:** This contains the basic information about the user needed while creating a new account.
   - **Data Structure:**
       Name
       Email
       Date of birth
       Phone No.
       Country
       Password

3. **Coin Price**
    - **Source Process**:
    - **Destination Process**: 2.1 Chart Data
    - **Description**: This contains the live prices for a currency for chart data.
    - **Data Structure**
        Symbol
            price

4. **Transaction Record**
    - **Source Process: -**
    - **Destination Process:** 3.0 Transaction
    - **Description:** This contains the information of a transaction made by the user on any particular day.
    - **Data Structure:**
        Date
        Time
        Amount
        Symbol
        Price

5. Request User and wallet info

- **Source Process:** 3.0 Transaction
- **Destination Process:**
- **Description:** This data contains user email whose wallet info and other info is required (balance, fixed balance etc)
- **Data Structure:**
    Email

6. User and Wallet info

- **Source Process:**
- **Destination Process:** 3.0 Transaction
- **Description:** This data contains the information about crypto currencies that a user possesses and the balance he has.
- **Data Structure:**
    Currency
    Balance
    Fixed Balance

7. Request Coin Info

- **Source Process:**
- **Destination Process:** 2.0 Fetch Data
- **Description:** This data contains the symbol whose information is required
- **Data Structure:**
  - Symbol

8. Coin Info

- **Source Process:**
- **Destination Process:** 2.0 Fetch Data
- **Description:** This data contains the information about a particular currency
- **Data Structure:**
  - Current Price
  - Market Trades
  - 24h high
  - 24h low
  - 24h volume
  - 24h price change
  - 24h price change percentage

9. Request News Info

- **Source Process:** 2.0 Fetch Data
- **Destination Process:**
- **Description:** This data contains the symbol whose news is to be shown
- **Data Structure:**
    Symbol

10. News

- **Source Process:**
- **Destination Process:** 2.0
- **Description:** This data contains the recent articles and news related to particular cryptocurrency
- **Data Structure:**
    Lang = 'en'
    Category
    Title
    Body
    Source-Url
    Image-Url

11. **New Order/Manipulate Order**
    - **Source Process:**
    - **Destination Process:** 3.0 Transactions
    - **Description:** This data contains the information about the specific order that is to be places
    - **Data Structure:**
        Order Side
        Date-time
        CoinPair
        Amount,Price

12. **Transaction Status**
    - **Source Process:** 3.0 Transaction Status
    - **Destination Process:**
    - **Description:** This contains the indications that an order is placed or rejected
    - **Data Structure:**
        Status

13. **Registration/Login Status**
    - **Source Process:** 1.2 SignIn Authentication
    - **Destination Process:** 1.0 User Authentication
    - **Description:** This data contains the indication whether the registration or login was successful or not.
    - **Data Structure:**
        Status

14. **New password email**
    - **Source Process:** 1.3 Password Recovery
    - **Destination Process:** 1.0 User Authentication
    - **Description:** This data contains the new password for the user's account via email.

    - **Data Structure:**
        New Password

15. Request Historical Data
  - **Source Process:** 2.1 Chart Data
  - **Destination Process: -**
  - **Description:** Contains the information like symbol, date, interval required to get the historical data.
  - **Data Structure**
        Symbol
        startdate
        Enddate
        interval

16. Historical Data
  - **Source Process:**
  - **Destination Process:** 2.1 Charts Data
  - **Description:** This contains the past 1000 entries of the cryptocurrency information (high, open, low, close, volume) needed to to create the candlestick charts
  - **Data Structure:**
        Date
            High
            Low
            Open
            Close
            Volume

17. **Request Recent Prices**
    - **Source Process:** 2.2 Predictions
    - **Destination Process:**
    - **Description:** This contains the symbol whose last 10 days prices are to be fetched.
    - **Data Structure:**
        symbol

18. **Recent Prices**
    - **Source Process:**
    - **Destination Process:** 2.2 Predictions
    - **Description:** This contains the last 10-30 days price of a particular cryptocurrency that is used to give the price predictions
    - **Data Structure:**
        Date
            High
            Low
            Open
            Close
            Volume

19. **User Info**
    - **Source Process:**
    - **Destination Process:** 1.2 Sign In authentication
    - **Description:** This data contains email and password of the user which needs to be authenticated.
    - **Data Structure:**
         email
         password

20. **User Info Insertion Status**
    - **Source Process:**
    - **Destination Process:** 1.1 Registration
    - **Description:** This data contains the registration status of the user and validates the entries.
    - **Data Structure:**
         status

21. **Insert/Manipulate Order**
    - **Source Process:** 1.1 Registration
    - **Destination Process:**
    - **Description:** This data flow contains all the information about a user to be registered.

- **Data Structure:**
  Email
  Symbol
  Orderside
  Price
  Amount
  date-time

22. **Update Password**
    - **Source Process:** 1.3 Password Recovery
    - **Destination Process:**
    - **Description:** This data flow contains the information about the new password which updates the user database with updated password.
    - **Data Structure:**
      email
      New password

23. **Password Recovery Request**
    - **Source Process:** 1.0 User registration/authentication
    - **Destination Process:**

- **Description:** This data contains all the information required about the new password when user forgets the old password
- **Data Structure:**
    email

24. **CoinPair, Request Predictions**
- **Source Process:** 2.0 Fetch Data
- **Destination Process:** 2.2 Predictions
- **Description:** This data flow contains Symbol and Date that an user sends in order to get the predictions of a particular cryptocurrency on a particular date.
- **Data Structure:**
    Symbol
    Date

25. **Predictions**
- **Source Process:** 2.2 Predictions
- **Destination Process:** 2.0 Fetch Data
- **Description:** This is the data flow that contains the price predictions of a particular cryptocurrency on a particular day.

- **Data Structure:**
  Lower limit
  Upper limit
  behavior

26. Request Charts Data

- **Source Process:** 2.0 Fetch Data
- **Destination Process:** 2.1 Charts Data
- **Description:** Contains the information required to get the chart data.
- **Data Structure:**
  Symbol
  Interval
  Startdate
  Enddate
  limit

27. Charts Data

- **Source Process:** 2.1 Chart Data
- **Destination Process:** 2.0 Fetch Data

- **Description**: Chart data contains the historical data as well as the live changing data that are needed to create the charts
- **Data Structure**:
  - High
  - Low
  - Open
  - Close
  - Time