



Mobile Assistant for Cryptocurrency Markets

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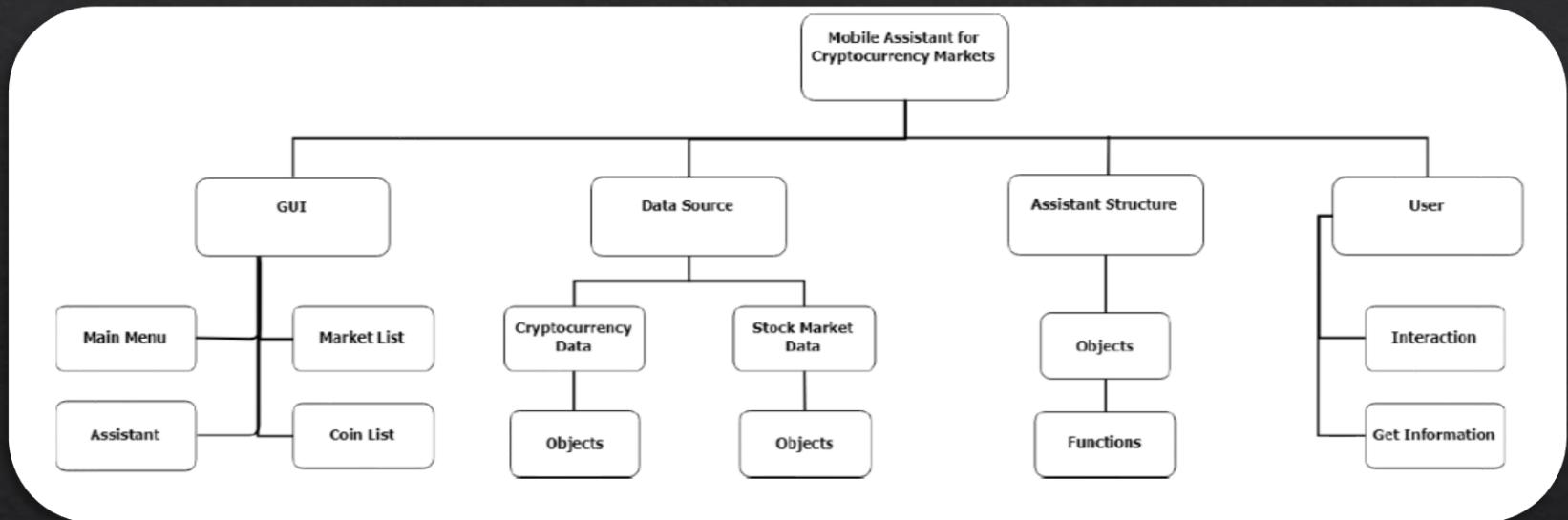
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Problem

- ◇ Displaying accurate prices of coins
- ◇ Support different stock markets
- ◇ Extraction of profitable exchange chains
- ◇ Keeping order books up to date

Solution

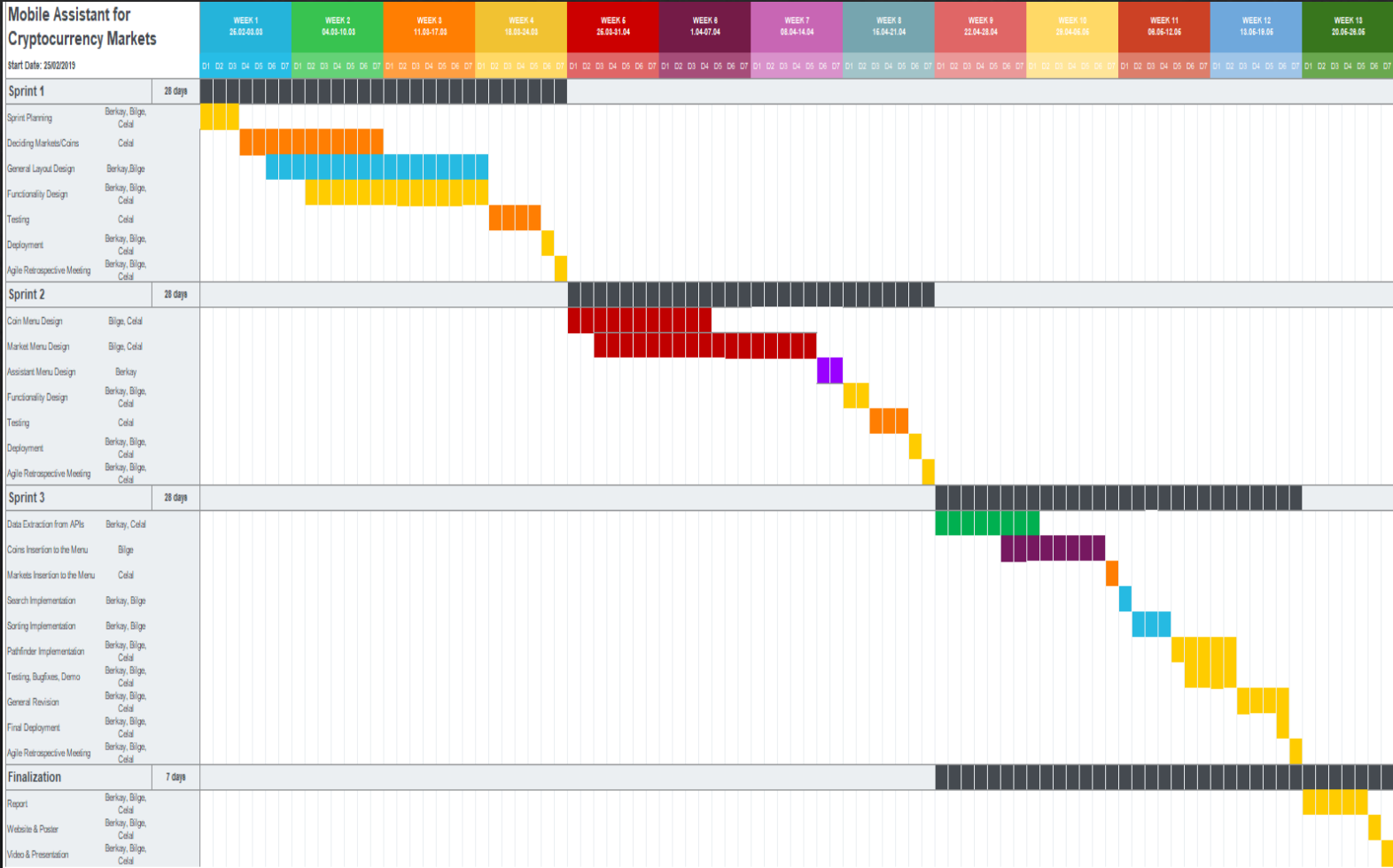


Building an application that assist users by providing updated values and exchange chains of cryptocurrencies.

Main Contribution

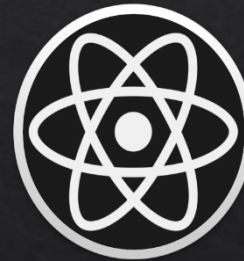
- ◆ Users can access various stock markets within one application
- ◆ Users can find different trading methods for a coin pair
- ◆ It is a mobile app so you can access anywhere anytime
- ◆ Plain and simple design

Workplan

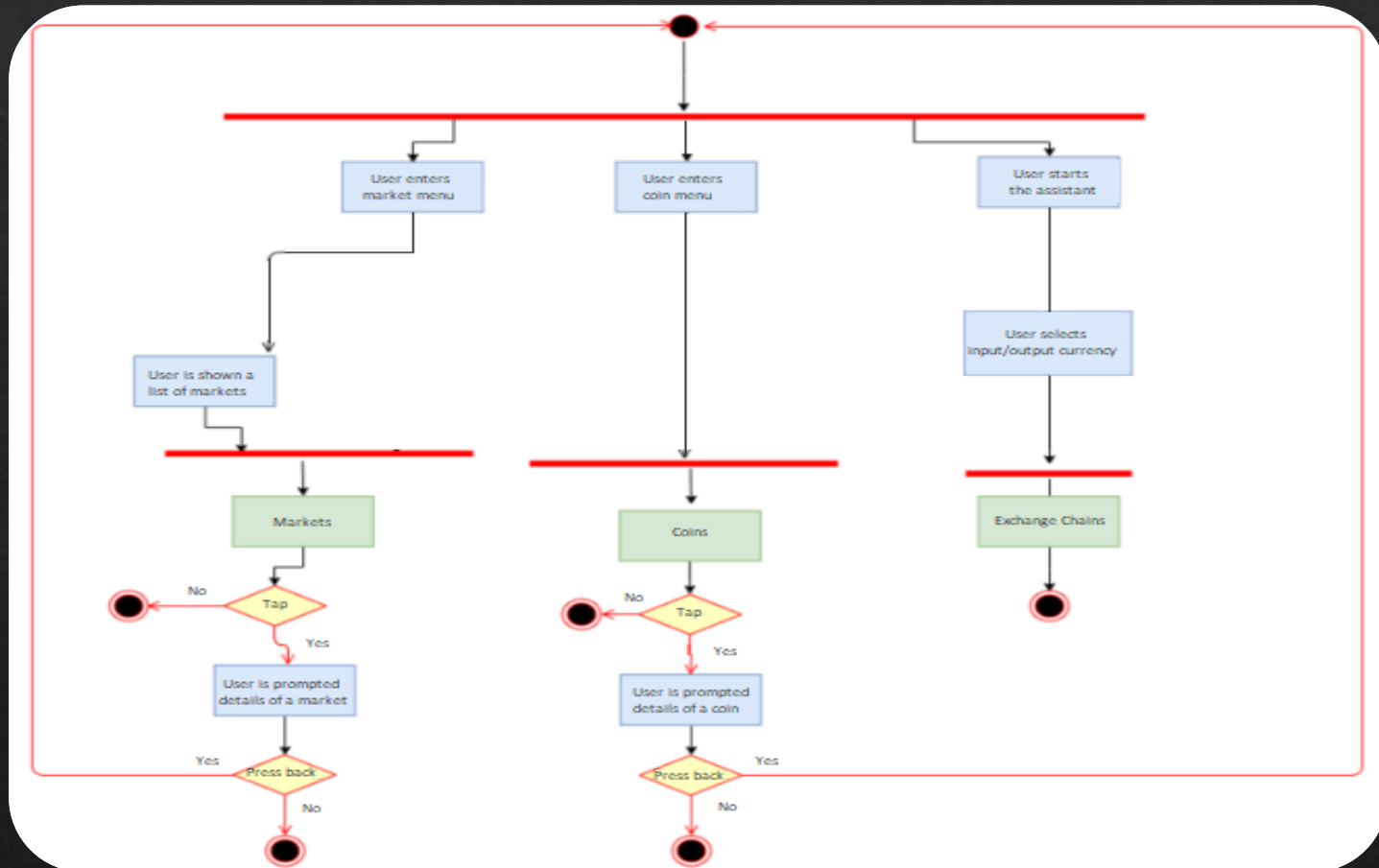


Environment and Tools Used

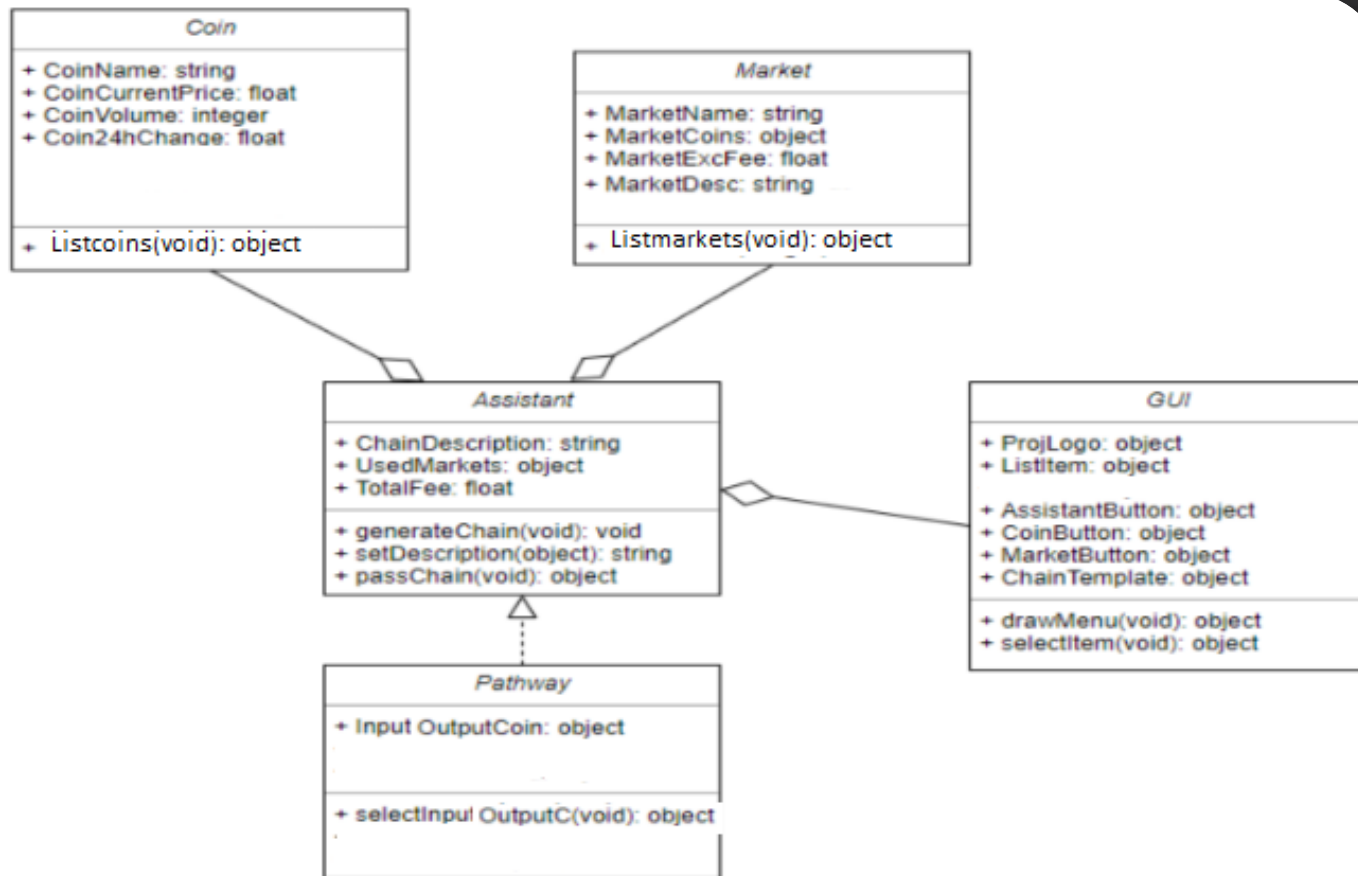
- ◇ Android Studio
- ◇ NodeJS
- ◇ React Native
- ◇ Atom.io



Materials and Methods



Materials and Methods




Success Criteria

Success Criterion	How to Measure
Efficiency of Exchange Paths	Checking if there are alternative routes in case a route is outdated
Accuracy of Prices	Checking prices from the market APIs directly
General Practicality	User feedbacks


Outputs

8:37


CryptAS

 **Bitcoin** 7942.04042506 \$


24h: 3.06 % Volume: \$140984615767

 **Ethereum** 243.943135489 \$


24h: 4.44 % Volume: \$25963944827.0

 **XRP** 0.3979929606 \$

24h: 3.18 % Volume: \$16810803945.0

 **Litecoin** 126.735220199 \$

24h: 10.86 % Volume: \$7878609208.0

 **Bitcoin Cash** 391.041971514 \$

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8:37

HitBTC

←

Fees: Maker Fee: 0.1%, Taker Fee: 0.2%

Ask	BTCUSD	Price: 7894.31	Quantity: 0.43054
Ask	BTCUSD	Price: 7894.32	Quantity: 0.06553
Ask	BTCUSD	Price: 7894.33	Quantity: 0.48028
Ask	BTCUSD	Price: 7894.63	Quantity: 0.30000
Ask	BTCUSD	Price: 7894.64	Quantity: 0.59048
Ask	BTCUSD	Price: 7894.65	Quantity: 0.00028
Ask	BTCUSD	Price: 7894.97	Quantity: 0.00028
Ask	BTCUSD	Price: 7895.28	Quantity: 0.00028
Ask	BTCUSD	Price: 7895.60	Quantity: 0.00028
Ask	BTCUSD	Price: 7895.91	Quantity: 0.00028
Ask	ETHUSD	Price: 242.497	Quantity: 0.4367
Ask	ETHUSD	Price: 242.498	Quantity: 0.2264
Ask	ETHUSD	Price: 242.500	Quantity: 10.0000

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Select the pair you want to operate:

BTC/USD ▼

Find chains

Trade Path

You can buy one lot of selected pair from HitBTC with the price: 7898.12, You can sell one lot of selected pair from BitMax with the price: 7898.44, Buy fee: 7.8981200000000005, Sell fee: 3.159376

OK

Home Markets Assistant

```
[
  - {
    best_ask: "0.015952",
    best_bid: "0.015938",
    instrument_id: "LTC-BTC",
    product_id: "LTC-BTC",
    last: "0.015946",
    ask: "0.015952",
    bid: "0.015938",
    open_24h: "0.01496",
    high_24h: "0.016082",
    low_24h: "0.014663",
    base_volume_24h: "559824.834383",
    timestamp: "2019-06-10T15:56:31.654Z",
    quote_volume_24h: "8563.8001277127"
  },
]
```

```
{
  - ticker: [
    - {
      symbol: "BTCUSD",
      24hrHigh: "8013.72",
      last: "7910.21",
      24hrVol: "6878.2915",
      ask: "7917.99",
      24hrLow: "7607.32",
      bid: "7902.21",
      24hrAmt: "54254787.25"
    }
  ],
  status: "ok",
  timestamp: 1560182453572
}
```

```
[
  - {
    ask: "0.00000011894",
    bid: "0.00000011751",
    last: "0.00000011894",
    open: "0.00000012004",
    low: "0.00000011706",
    high: "0.00000012218",
    volume: "119176800",
    volumeQuote: "14.143654769",
    timestamp: "2019-06-10T15:53:35.376Z",
    symbol: "BCNBTC"
  },
]
```

Challenges

- ◇ Every exchange market has its own API
- ◇ Some coin/market data are inaccessible via APIs
- ◇ Not every coin pair are directly exchangeable

Future Work

- ◇ More markets can be supported
- ◇ More coin pairs for assistant menu
- ◇ Order books of different coins
- ◇ More optimization

Thanks for listening!

Questions?