Mister-BITCoin

Building it with Angular!

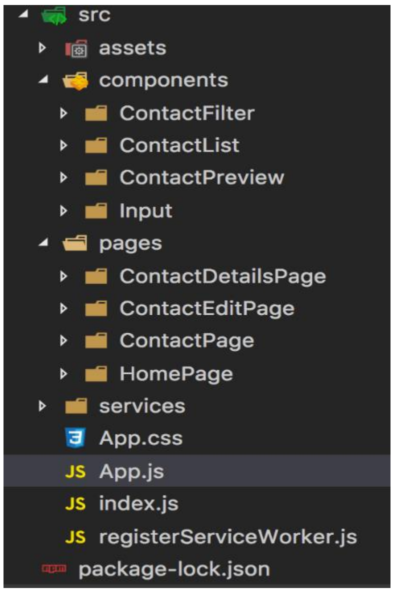
Let’s build a digital wallet for holding my bitcoins and sending (paying) them to my contacts.

Start by creating the following pages.

As we don’t have routing yet – and to keep you focused, you can comment-out components or add some buttons to switch between pages.

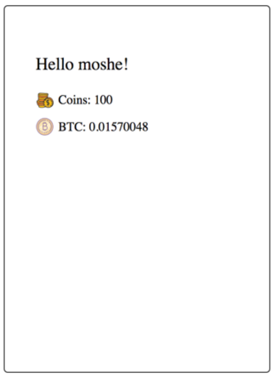
Directory structure

Please follow the following structure and naming conventions:



```
src
  assets
  components
    ContactFilter
    ContactList
    ContactPreview
    Input
  pages
    ContactDetailsPage
    ContactEditPage
    ContactPage
    HomePage
  services
  App.css
  App.js
  index.js
  registerServiceWorker.js
package-lock.json
```

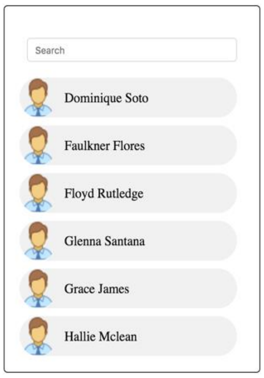
Part 1 Contacts



Hello moshe!

Coins: 100

BTC: 0.01570048



Search

Dominique Soto

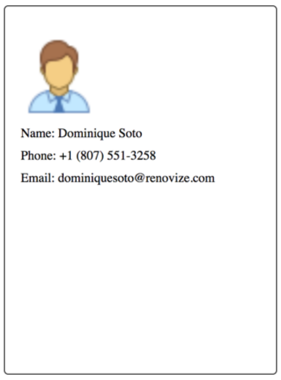
Faulkner Flores

Floyd Rutledge

Glenna Santana

Grace James

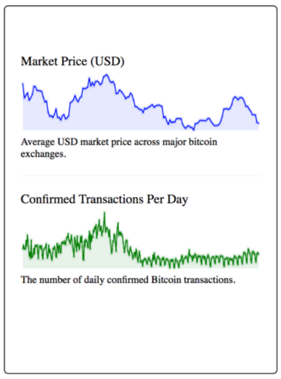
Hallie Mclean



Name: Dominique Soto

Phone: +1 (807) 551-3258

Email: dominiquesoto@renovize.com


Market Price (USD)
Average USD market price across major bitcoin exchanges.
Confirmed Transactions Per Day
The number of daily confirmed Bitcoin transactions.

Services

ContactService

Use the provided ContactService!

Example to contact model:

```
{
  "_id": "5a56640269f443a5d64b32ca",
  "name": "Ochoa Hyde",
  "email": "ochoahyde@renovize.com",
  "phone": "+1 (968) 593-3824"
}
```

UserService

Functions:

- getUser()

this function will return a user (currently hardcoded and synchronously)

Example for user model:

```
{
  name: "Ochoa Hyde",
  coins: 100,
  moves: []
}
```

BitcoinService

Use *axios* to fetch the data.

Functions:

- getRate(coins) (returns Promise)
  - Bitcoin rate (use a Bitcoin value API such as this)
- getMarketPrice(), getConfirmedTransactions()
  - Return chart data as described below.

Charts:

Here are some APIs to fetch data from:

1) trade-volume
    a. Site - https://www.blockchain.com/charts/trade-volume ,
    b. JSON: https://api.blockchain.info/charts/trade-volume?timespan=5months&format=json&cors=true
2) avg-block-size
    a. Site - https://www.blockchain.com/charts/avg-block-size ,
    b. JSON: https://api.blockchain.info/charts/avg-block-size?timespan=5months&format=json&cors=true
3) market-price
    a. SITE- https://www.blockchain.com/charts/market-price ,
    b. JSON: https://api.blockchain.info/charts/market-price?timespan=5months&format=json&cors=true

You can find more of the APIs here.

Note: to prevent the API blocking you for too many requests, save the response in the service (or local storage) for development and later switch to using the real API

Note: Some chart's API calls are available with CORS headers, add a &cors=true parameter to the GET request.

Note: You can add 'timespan=XXX' to fetch more/ less data

(XXX can be one of: {X}months, {X}days, {X}years)
Url query example:

```
https://api.blockchain.info/charts/market-price?timespan=5months&format=json&cors=true
```

Pages

<HomePage>

Use UserService.getUser and BitcoinService and display:

- User Name and Coins
- Current Bitcoin rate

<ContactPage>

Gets contacts from ContactService and renders a *<ContactList>* component, passing down the contacts.

<ContactDetailsPage>

Get the contact by given contactId from ContactService and render the contact details (currently get the contactId from props or hardcoded)

<StatisticPage>

Display the charts:

- Market price
- Confirmed transactions per day

You may use/ add other charts if you like

Components

<ContactPreview> Props: contact

Render a div with an image (You can use robohash) and a span for preview

<ContactList> Props: contacts

Render each contact previews inside an <li>

<Chart>

Render a chart
Props for example -: title, data, description, color…
Use a charts library like angular-google-charts

<ContactFilter> Props: onFilter

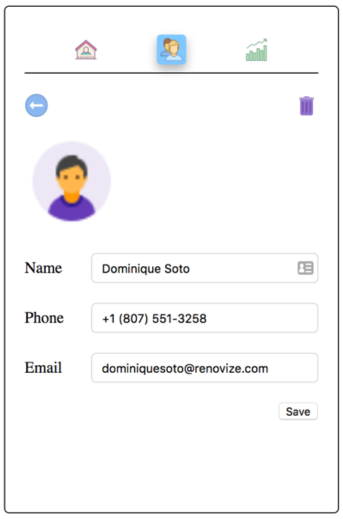
Allows free text search by name / phone and calls onFilter() on every keypress (onChange), passing a filter object e.g. : {term: 'puk'}

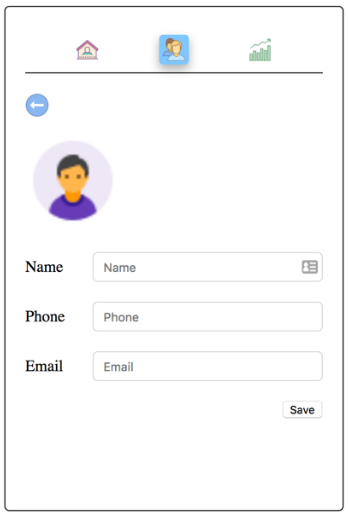
GIT Push, Go Home.

Part 2 CRUDL

Add Router, Header and implement the full CRUDL on Contact.

Note – for routing to work in github pages, we will need to use the *HashRouter* and not the *BrowserRouter*.





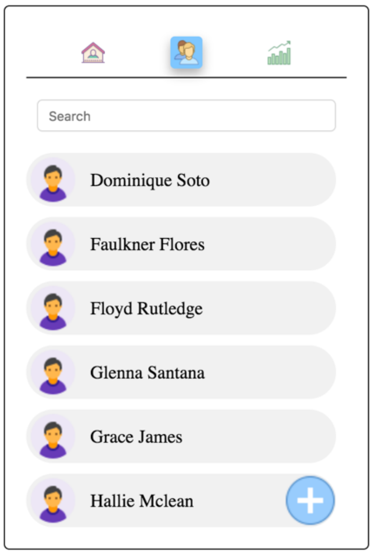
Pages

<HomePage> (route: /)

1) make sure you can access to this page from route

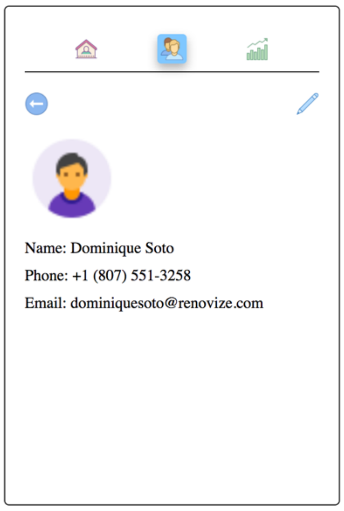
<ContactPage> (route: /contact)

2) make sure you can access to this page from route
3) add new contact button (when user click it will move to *<ContactEditPage>*)



<ContactDetailsPage> (route: /contact/:id)

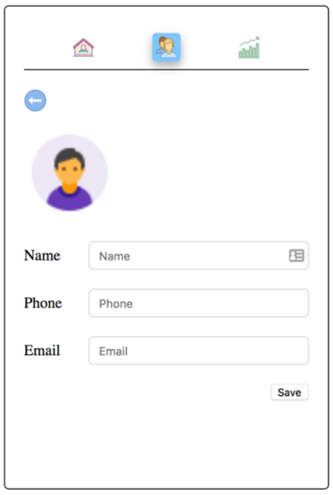
1) Change the component so now you will receive an id as route param and gets a contact from the ContactService, display that contact in full.
2) Add navigation buttons:
   Back – when clicking navigate back to *<ContactPage>*
   Edit – when clicking navigate to *<ContactEditPage>*


Name: Dominique Soto
Phone: +1 (807) 551-3258
Email: dominiquesoto@renovize.com

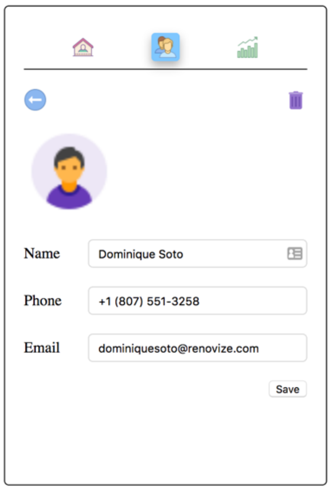
<ContactEditPage> (route: /contact/edit/:id?)
Allows Adding and Editing a contact

- Gets a contact from the service by id or start with a new contact
- Allow editing the name, email and phone of that contact

CREATE MODE:


Name	Name
Phone	Phone
Email	Email

EDIT MODE:


Name	Dominique Soto
Phone	+1 (807) 551-3258
Email	dominiquesoto@renovize.com

- Add action buttons:
  Back – back to contact details
  Delete – remove the contact and navigate to *<ContactPage>*

Components

<Header>
Render a div with a link so we can navigate between different pages

<ContactList>
Add <Link> element to add the ability navigate to contact details page when clicking on each contact

Add the project to github

Edit the manifest with colors and icons, and check your PWA from Mobile

GIT Push, Go Home.

Part 3 User authentication

Services

UserService

```
{
   name: "Ochoa Hyde",
   coins: 100,
   moves: []
}
```

Add the functions:

- signup(name)
- addMove(contact, amount)

Use the local storage to save/ load the user.

Move model:

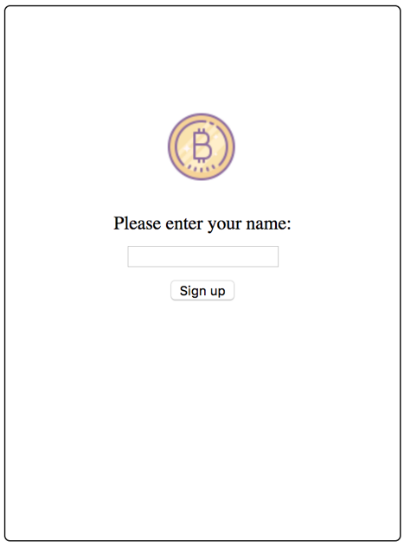
```
{
   toId: "d99e3u2ih329"
   to: "Moshiko",
   at: 2652712571,
   amount: 2
}
```

PAGES:

<SignupPage> (route: '/signup')

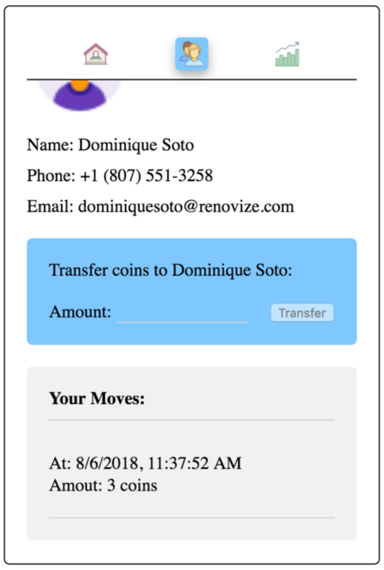
Ask for user name and save the new user in local storage and local variable using the UserService.

- When user is not known we route to this page
- The <SignupPage> just requests a name
- New user gets 100 coins when signup
- To keep it simple, do the signup process synchronously (no need for promises here in UserService)



<ContactDetailsPage>

- render a *<TransferFund>* component – allow to move coins from user to this contact.
- render a *<MovesList>* component - display all moves to current contact



Name: Dominique Soto

Phone: +1 (807) 551-3258

Email: dominiquesoto@renovize.com

Transfer coins to Dominique Soto:

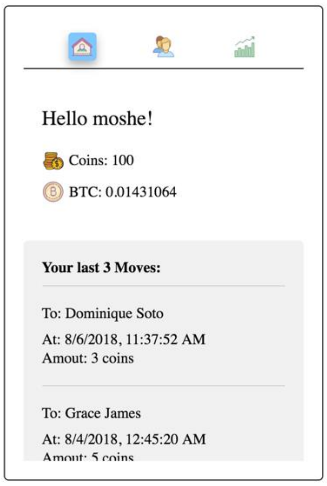
Amount:

Your Moves:

At: 8/6/2018, 11:37:52 AM
Amout: 3 coins

<HomePage>

- render a *<MovesList>* component - display the last 3 transactions



Hello moshe!

Coins: 100

BTC: 0.01431064

Your last 3 Moves:

To: Dominique Soto
At: 8/6/2018, 11:37:52 AM
Amout: 3 coins

To: Grace James
At: 8/4/2018, 12:45:20 AM
Amout: 5 coins

Components

< MovesList > props: title, moves-list

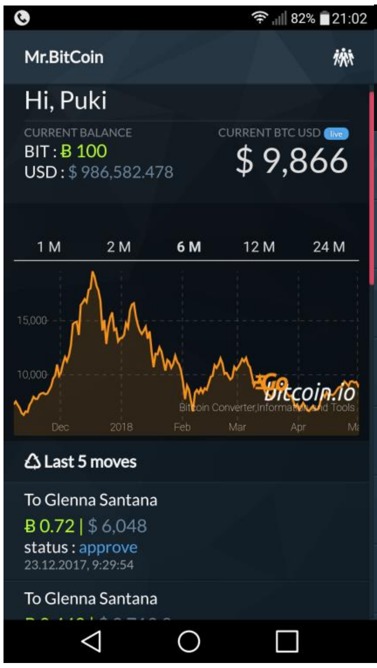
- display a list of moves using the UserService

< TransferFund > props: contact, maxCoins, onTransferCoins

- show a Transfer Fund form (with an amount field).
- when submitted (call to *onTransferCoins*):
  1) call to UserService to add a move.
  2) reduce from the user balance (this money goes nowhere!) using the UserService.

  Note: at this point you will need to refresh the page to see the new transaction in *<MovesList>.* you can add callback as props to render the *<ContactDetailsPage>* but when we will use the state management it will render automatically.

Some Inspiration



Hi, Puki

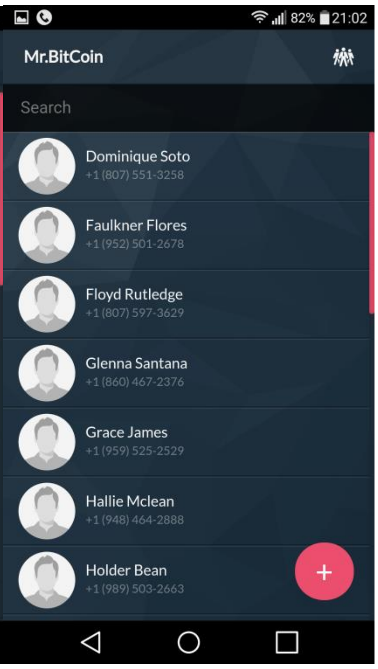
CURRENT BALANCE
BIT : Ƀ 100
USD : $ 986,582.478

CURRENT BTC USD live
$ 9,866

Last 5 moves

To Glenna Santana
Ƀ 0.72 | $ 6,048
status : approve
23.12.2017, 9:29:54

To Glenna Santana



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Grace James
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Hallie Mclean
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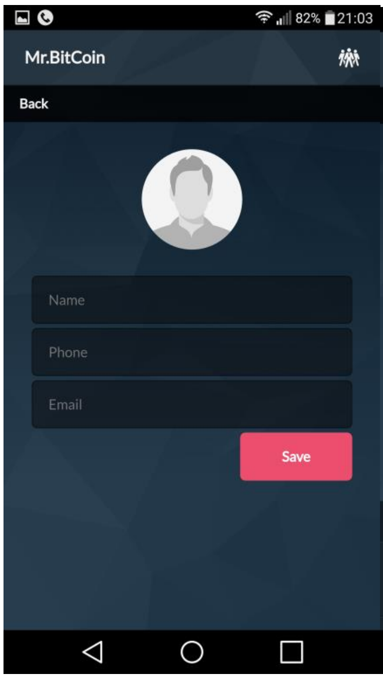
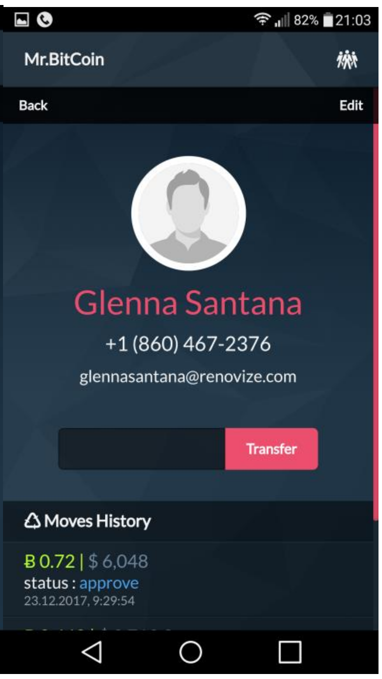
Holder Bean
+1 (989) 503-2663





Glenna Santana
+1 (860) 467-2376
glennasantana@renovize.com

Moves History

Ƀ 0.72 | $ 6,048
status : approve
23.12.2017, 9:29:54