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09 & 10 April 2015

FREECOIN

Summary of outputs from the workshops

Version 1.0

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ELEVATOR PITCH

30 second description of the project (freecoin) for the target users (organisations).

Elevator Pitch

FOR Participatory and democratic organisations

WHO want to incentivise participation

'*Free Coin*'

IS a set of tools that lets people run a reward scheme that is transparent and auditable to other organisations

UNLIKE centralised banking databases and non-participatory reward schemes

IT is a social digital currency that is reliable, simple and resilient

GLOSSARY

GLOSSARY

Wallet

The software that interacts with the blockchain

Book

The metadata that is attached to it

Keys

Private   Passphrase/Pin

Public   Card

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ACTORS

Who is involved in the system?

Actors

Organisation

Any democratic or participatory community that wants to have a reward scheme

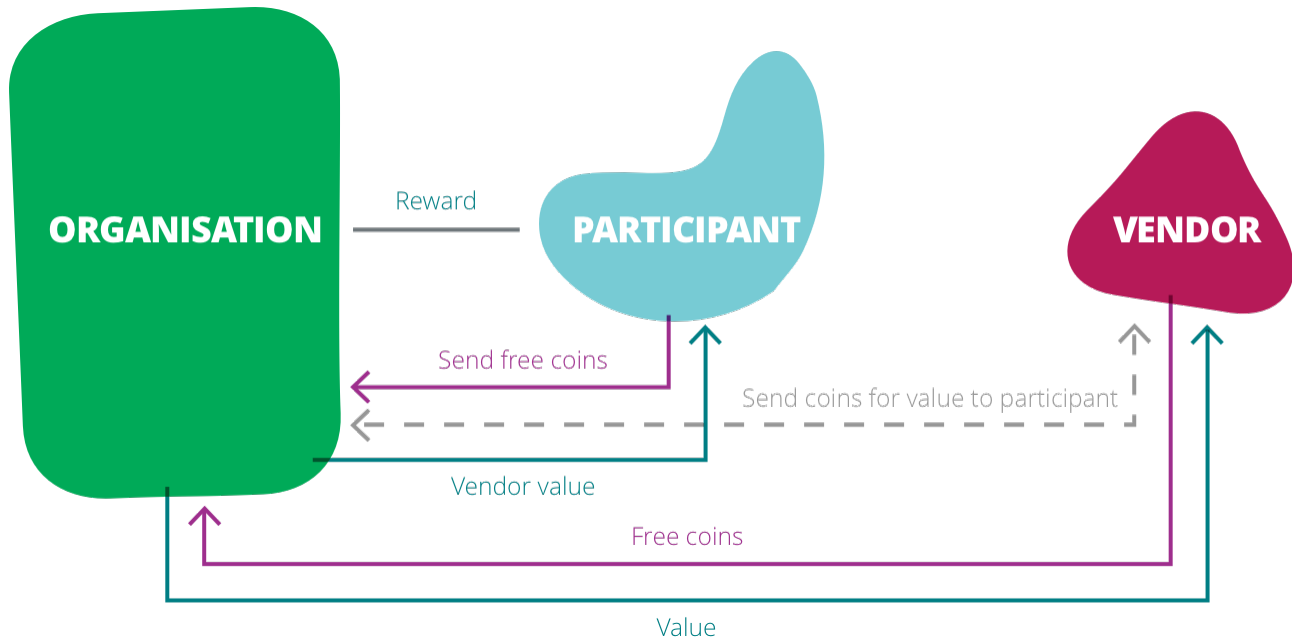## Participant

Members of that community

Vendor

Any 3rd party business that provides value in exchange for Freecoins. Also receives value in exchange for Freecoins. For example a transportation system or a pub.

FREECOIN OVERVIEW

ORGANISATION

Reward

PARTICIPANT

VENDOR

Send free coins

Send coins for value to participant

Vendor value
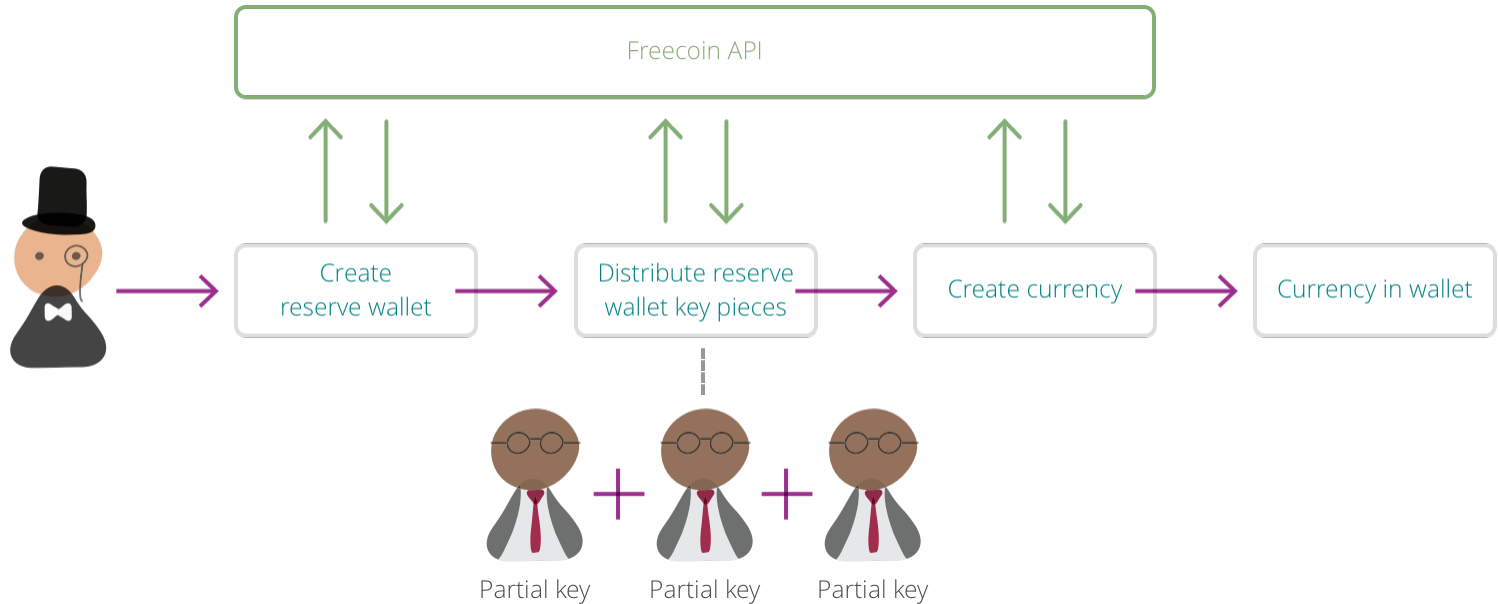
Free coins

Value

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USER JOURNEYS

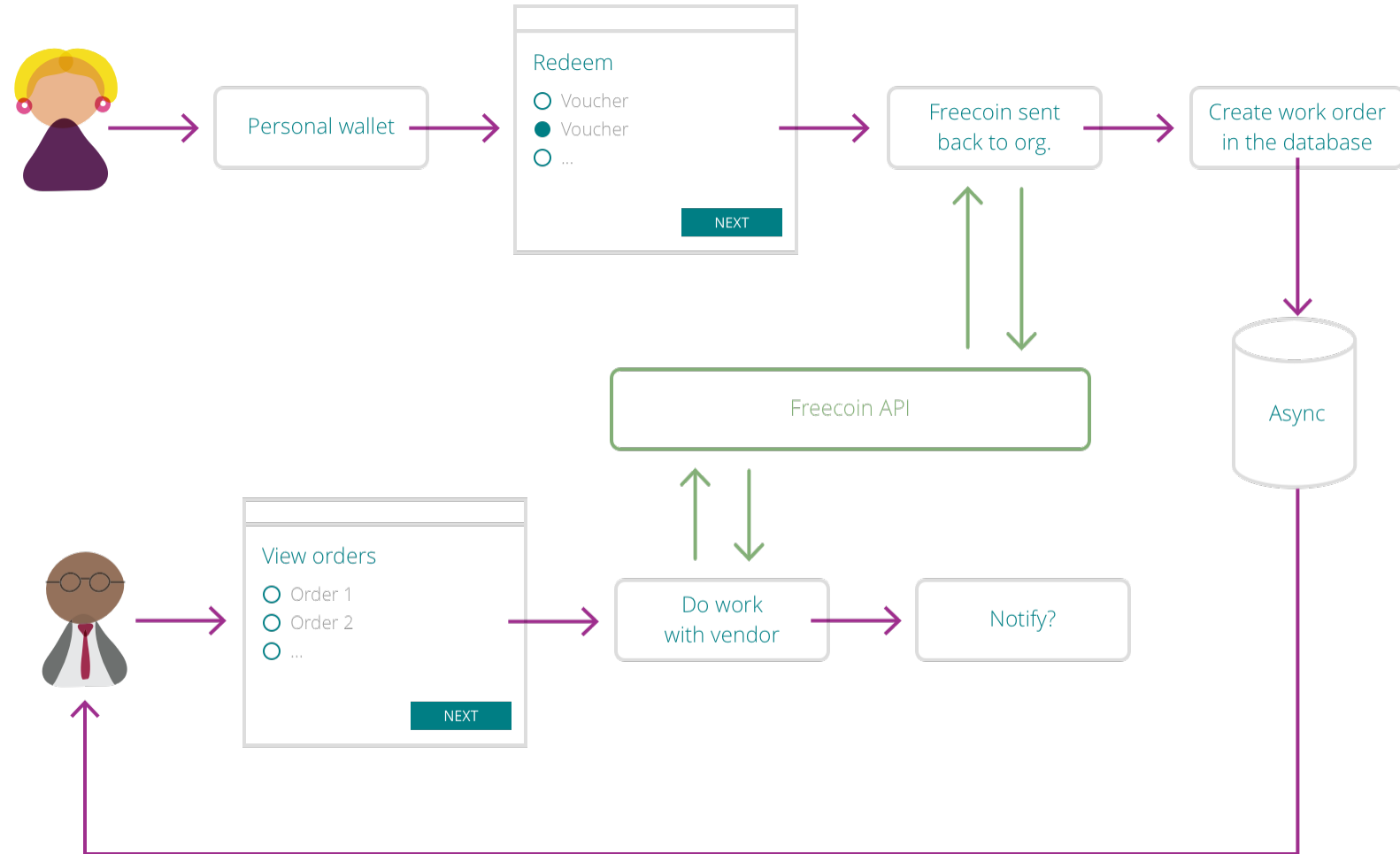*How will users interact with the project?*

JOURNEYS OVERVIEW

- ❏ As an organisation I want to create a currency
- ❏ As a participant I want to exchange Freecoins for value
- ❏ As a participant I want to create a wallet
- ❏ As a participant I want to lookup a Wallet
- ❏ Create incentive
- ❏ Check Freecoin balance
- ❏ Transfer Freecoins
- ❏ Award currency

As an organisation I want to create a currency

Organisations are able to customise their currency using a few simple options and then create a reserve of that currency in a pre-created wallet. The reserve is protected by splitting the wallets pin into several pieces which are shared by the board of the organisation.

As a participant I want to exchange Freecoins for value

Personal wallet

Redeem
- Voucher
- Voucher
- ...

NEXT

Freecoin sent back to org.

Create work order in the database

Freecoin API

Async

View orders
- Order 1
- Order 2
- ...

NEXT

Do work with vendor

Notify?

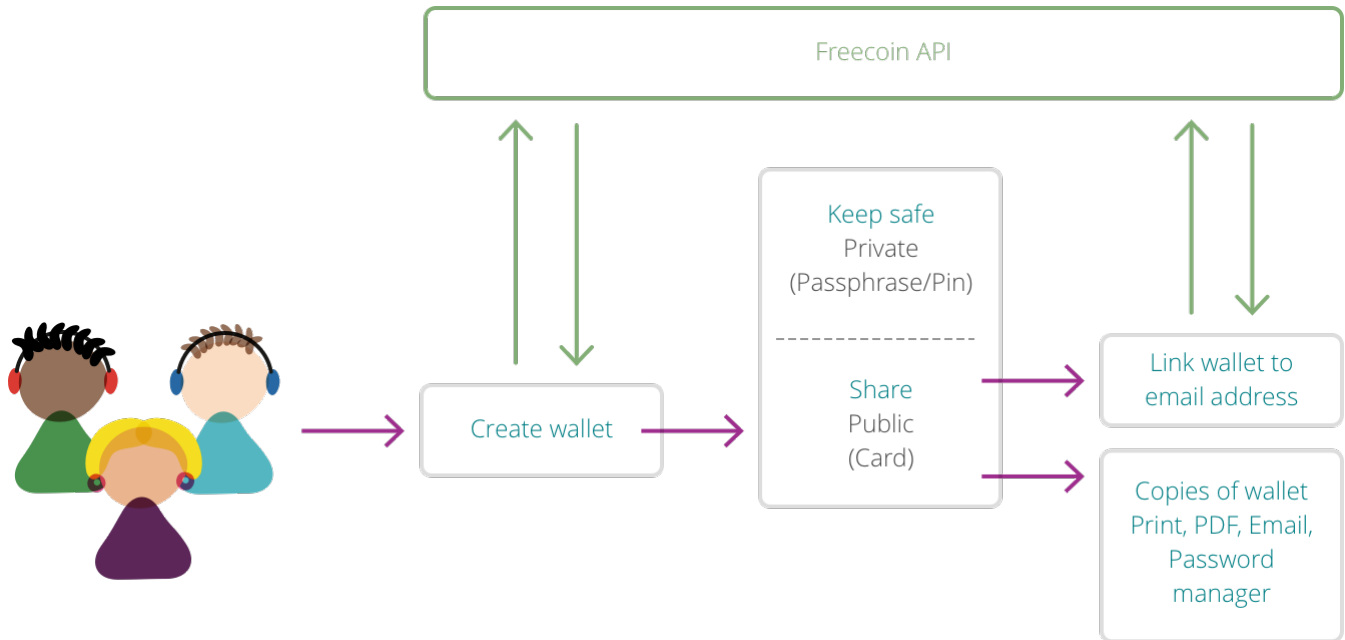## As a participant I want to exchange Freecoins for value

A participant is able to exchange their Freecoins for something valuable from a vendor partnered with the organisation.

Initially the Freecoins the participant wants to exchange will be transferred back to the organisation and a work order describing the exchange will be created in a data store.

In the initial lean implementation the work orders could be completed manually and asynchronously by the organisation.

As a participant I want to create a wallet

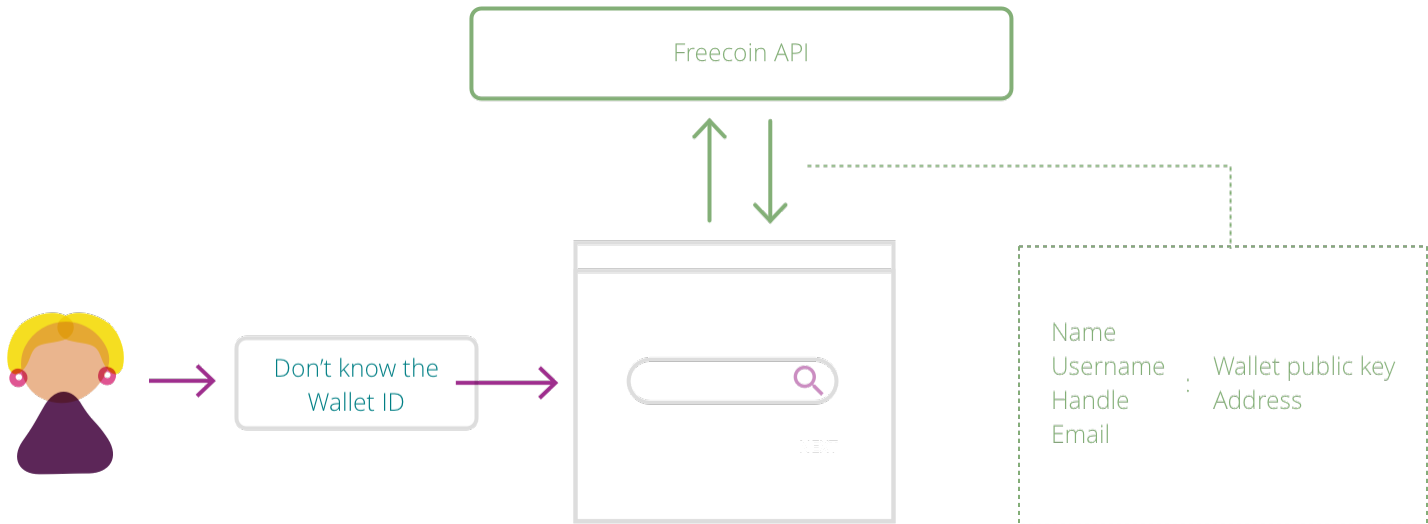## As a participant I want to create a wallet

Organisations can offer participants a way of creating a card and pin using a web form provided by the Freecoin software.

The form also captures the participants email address so that other people can look up their payment details later. This information is stored in a data store which is part of the Freecoin software.

The participant may also be given the option of printing their card as a portable and offline method of storing their credentials.
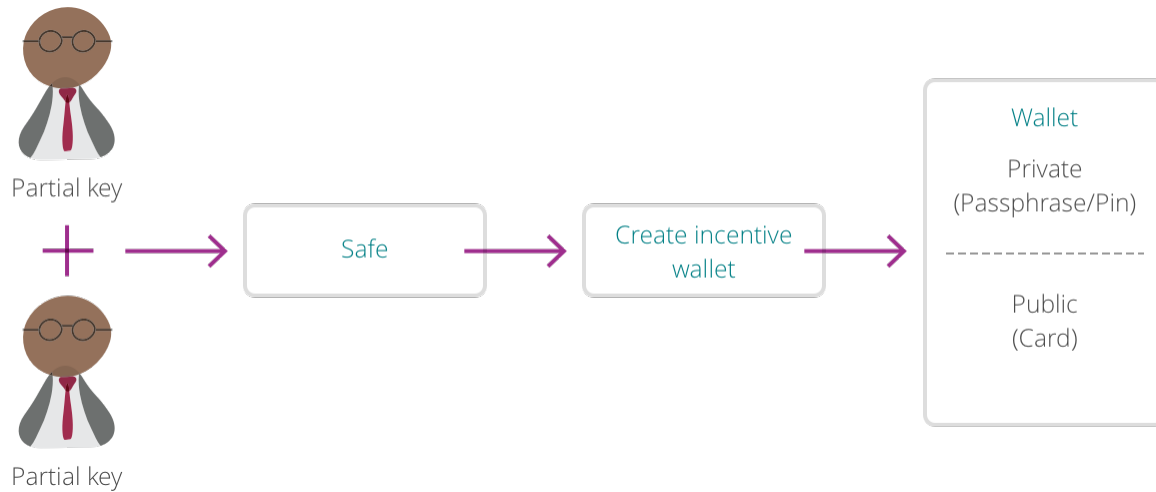
As a participant I want to lookup a Wallet

Freecoin API

Don't know the
Wallet ID

Name
Username
Handle
Email

Wallet public key
Address

Participants are able to look up the card details of other participants in order to transfer currency to them.

Create incentive

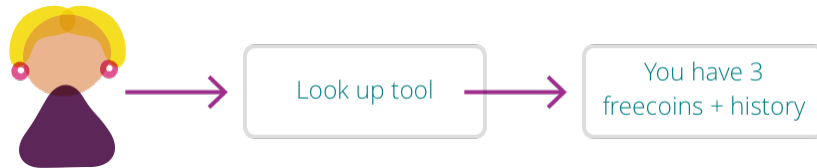## As an organisation I want to create an incentive

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Organisations create incentive wallets to store funds for rewarding participants. In order to create an incentive wallet a quorate number of partial keys need to be combined by the board of the organisation.

Once an incentive wallet is created it can be used to pay participants without the use of combined partial keys.

In order for incentive wallets to work the currency will need to be created in a way which allows transfer between third parties.
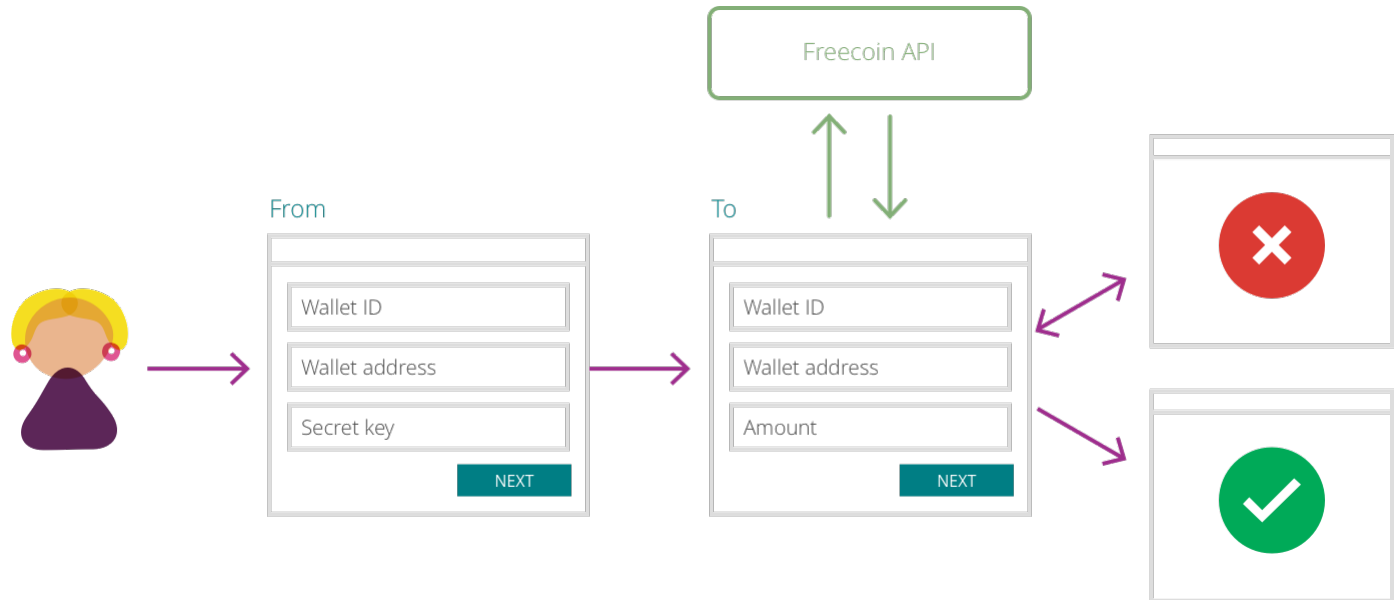
Check Freecoin balance / audit

Participants are able to use a web form to check the amount of currency and history associated with a card.
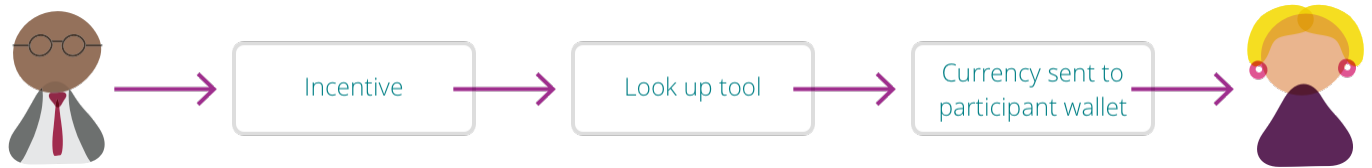
Transfer Freecoins

Participants are able to transfer currency between themselves. This could form the basis for a community reward or 'kudos' system.

Award currency

Incentive → Look up tool → Currency sent to participant wallet

Organisations incentivise behaviour by paying participants from incentives which contain an amount of currency set aside for that purpose.

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NEXT STEPS

Add a subhead if you want.

SUGGESTED TECHNOLOGIES

Frontend

❏   Bootstrap
❏   jQuery (but used minimally)

App Layer

❏   Web App in python, ruby, Clojure, NodeJS

Storage

❏   MongoDB running as a single instance (with backups and
        appropriate write concern settings).

SUGGESTED DEVELOPMENT APPROACH

Design Ideas
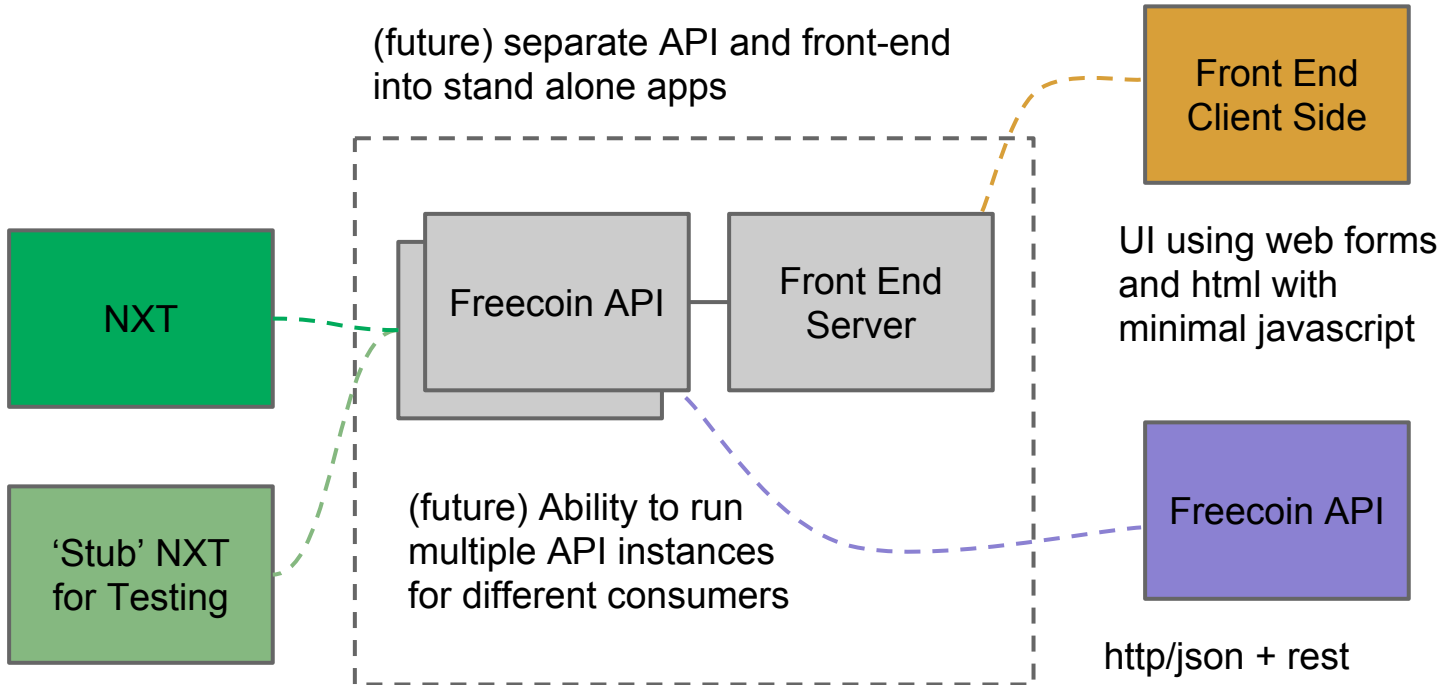
❏ Progressive enhancement
❏ Mobile first
❏ API first

Approach

Use the user journeys discussed in the workshop to drive out a front end and API architecture. The API will be consumed by other applications in the DCENT program as well as the front end described here. Building in this way will ensure that the API is usable for real world purposes.

PROPOSED 'LEAN' ARCHITECTURE

THANKS

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