FAIRER FINANCE HACKATHON

Direct Credits:
Combating the Poverty Trap and Debt Spiral

ORGANISED BY CPRAS

www.fairerfinancehackathon.com

INTRODUCTION

Direct Credits: Combating the Poverty Trap and Debt Spiral

"Once you hit a certain point, the financial system starts to work against you, sucking you into ever greater problems. This does not have to be how it is." Richard Hallewell, Cofounder of CPRAS.

The Poverty Trap has long been a problem, much exacerbated by a decade of 'austerity' since the 2008 crisis. The economic consequences of Covid-19 make it a threat to millions more...

One of the most common triggers for a debt spiral is Direct Debit and Standing Orders – something designed to make all our lives easier. These systems work fine most of the time, but when funds run low they can trigger a debt spiral…

Most people are all too familiar with the phenomenon: An incoming payment, such as a salary, arrives late or an unexpected expense partially drains funds.

Then the direct debits hit like zombies – trying to take money that is not there (or outside an arranged overdraft). Instead of failing gracefully – and allowing the account holder the opportunity to act - they make matters worse by triggering bank charges, which make matters worse still and on it goes: You are in a debt spiral.

This is why we have reimaged Direct Debit as Direct Credits – which have the advantages of direct debits but without the downsides. Direct Credits also provide a more natural and intuitive way for people to budget – using digital, automated 'jam jars'.

The icing on the cake is that in the new environment, under the direct control of the consumer, the system can also provide a more direct and better 'credit score' – rating the customer's ability to take on another financial commitment, which can be shared with a retailer. Creating better access to credit and services for the many whose traditional, backwards looking, credit scores are excluding them.

The Direct Credit platform will be much needed as the current Covid crisis impacts the finances, and credit-scores, of millions more – driving them towards the poverty trap.

1. Objectives of the CPRAS Digital Hackathon

CPRAS is launching a unique, 30 day hackathon aiming to provide a smooth customer experience for 'Direct Credits'.

The challenge is to combine three readily available technologies into a single web application that incorporates:

1. An "open banking" service (examples provided later for this and the other tech elements that need integrating) that obtains the user's transaction data from their bank, categorises and analyses it and calculates what affordability the user has – i.e. what financial capacity do they have. N.B. The task is NOT to create the analysis or calculation tools – these exist as services that can be integrated into the solution.

2. A marketplace platform (like cost comparison websites) where users are only presented with options that they can afford – as determined by the analysis described above. Users should be able to share their affordability report (as described above) with service providers.

3. A digital wallet that handles the user's regular payments i.e. the user has a DC wallet. When they agree to take a service from the marketplace above, then the regular payment amount is requested automatically from the user's bank with timing to correspond to user's income being received. The wallet then holds the balance and pays out when amounts are due.

The judging will focus on the delivery of the above core functions, but there are lots of opportunities to add real extra value. For example:

● Discretionary spend – users could set the income request (what they transfer form their bank each month) to be more than needed for regular payments. The surplus could be a savings pot, or be usable with a debit card etc.

● Should a risk of a missed or underpayment arise (e.g. late or insufficient income) the user should be alerted without delay and be provided with an explanatory report (e.g. income delayed and the following payments are due shortly) and a clickthrough for the full picture.

● Self Sovereign Identity - Providing an integration with EarthId would help empower users with privacy and consent, and enabling seamless onboarding and passwordless logins.

● User Rewards - Rewarding users with points/tokens could further incentivize the users.

2. Date and place for the event

The hackathon starts on 1-09-2020 and ends on 30-09-2020. The results will be announced on 10-1-2020. Participants develop the solution from the comfort of their home, coordinating with their team members through the channels they prefer.

3. Participants

● The hackathon is open to those who are interested in technology and innovation and have an interesting project or other idea to develop for the proposed challenge.
● The event is open to students or recent university graduates or professionals
● Participation in the hackathon is open to individuals aged 18 or older.

4. Requirements for acceptance and rules of participation

- Registering for the hackathon is entirely free of charge and is open to individuals or teams. Entries accepted from 19-08-2020
- Teams and individuals wishing to sign up for the hackathon must complete the online registration form at www.fairerfinancehackathon.com, indicating the personal details of the individual and of each team member.
- Each individual participant or team member must accept the event regulations and grant consent for the handling of their personal information and the produced artifacts to CPRAS.
- The personal details of the participants will only be used to contact the participants regarding the hackathon or to contact the participants in a later stage (but within 6 months) to discuss possible collaboration in any way.
- The members of each team are to ensure that the personal information provided upon registration online is true and accurate and must unconditionally accept any and all decisions made by Hackathon organisers with regards to the event organisation.
- Each team must be given a name as chosen by its members. Team names must not be connected in any way with the names of companies or registered trademarks, unless owned by the participant or use expressions that incite violence or are discriminatory, obscene, or represent any form of defamation. Failure to comply will result in disqualification.
- If information provided during online registration is found to be incomplete and/or inaccurate, even if related to just one team member, the entire team concerned may be excluded from the competition.
- Hackathon participants hereby acknowledge that event participation is free of charge and that participation does not entail any right to compensation of any kind or to reimbursement of any expenses incurred.

5. Topic to be developed

Technical Specification

Further from section 1, participants are expected to create a web app acting as a one-stop money management solution for everyone. The app should offer simple budgeting tools, access to money saving offers on everyday expenses such as phone plans, utilities etc. and access to reduced cost services and credit based on their ability to pay for goods and services versus the traditional method of screening based on credit history.

A pre-event meeting is organised to set the context and answer any questions that participants may have. Register for the pre-event here:

https://www.eventbrite.com/e/fairer-finance-hackathon-induction-tickets-117426721485

A guideline of tools and technology are provided in the specification; however, the participants are free to explore the technology and tools required to create the prototype.

The platform should have the following features and democratise the access to credit and allow money to flow, helping more customers get on the path of financial well-being.

- Signup and login page
- Activity Dashboard
- Onboarding new users
- Navigation
- Forms
- Product menus
- In-app purchases
- Shopping carts and payments
- Wallets
- Push notifications
- App analytics
- Tailored Offers

The web app should be able to support at least one of the mainstream operating systems (i.e. Windows, Linux, MacOs, Android, iOS). We have shortlisted certain tools; however, participants are free to explore further

- o Marketplace: Laravel built marketplace(s)
- o Open banking providers: Credit Kudos, Token, Rapyd, Volt
- o Digital Wallets: Rapyd, Way4, Paytm

Architecture View
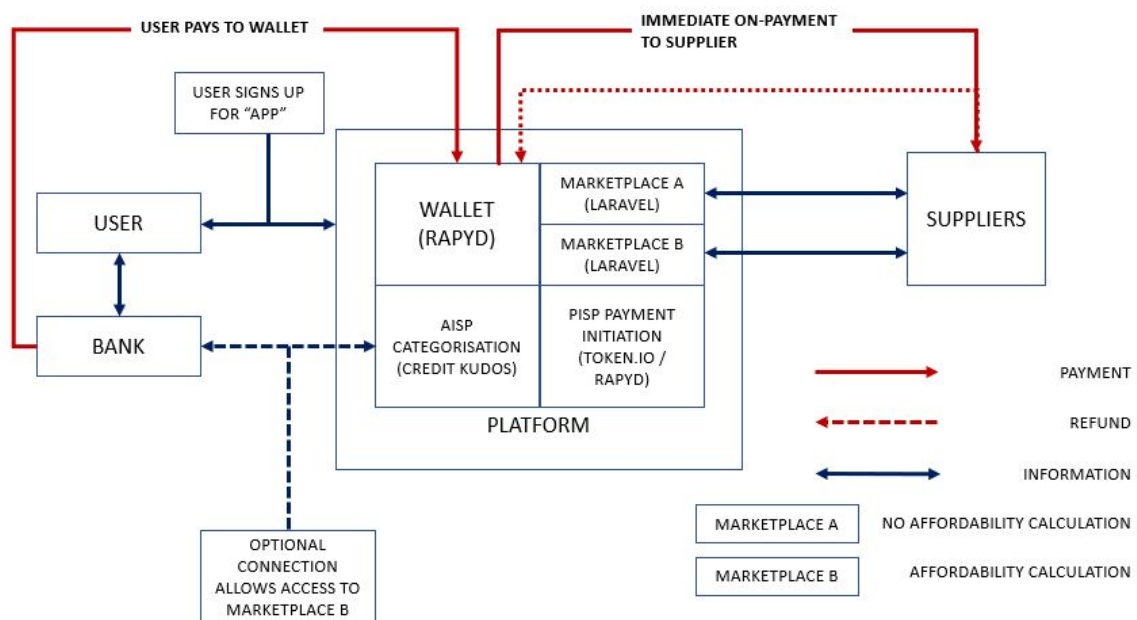
User can access the app by downloading and registering.

If a user agrees to connect their bank accounts to the app, they will be connected to the following features:

- Historical data from their banks
- Categorization of spending / incoming payments
- Money management tools
- Access to the wallet
- \<hypothecation via the wallet>
- "connected marketplace"
  - Targeted offers
  - Offers based on affordability calculation
  - \<pre-approval on deals>
  - Direct credit payments to the service provider

Customer Journey

For users who want to connect their bank accounts:

- Sign up for the CPRAS app
- Connect bank account (s)
- AISP call authorises data collection
- AISP / wallet categorises data
- Connect to the marketplace where service providers can advertise
- Browse offers / alerts about offers
- UI allows them to map savings
- User agrees to service offering
- PISP can be used to initiate payment schedule
- Future payments can be added to money management tool / UI / Wallet
- Other behaviours to be modelled by UI e.g. if you saved money on a regular basis / increased payments to a debt / loan

Tool	Feature	User Benefit
AISP	Collection of banking data	Easy view across all eligible banks
AISP	Categorisation of banking data	Affordability and habit representation
AISP	Establishes affordability	Allows deals to be considered and validated

Connected Market Place	Provides offers from service providers based on affordability data	Pre-authorisation for deals
Unconnected Market Place	Provides offers from service providers (may be unique to CPRAS)	Potential monetary savings
CPRAS App	UI	Centralised Money Management Tool
CPRAS App	Consolidates data and creates interface with markets	Creates Wallets / Jam Jars for future payments
CPRAS App	UI	Projected savings
PISP	Initiate a single payment	Make deal live
PISP	Commit to a regular payment	Straight through payment process
Wallet	Representation of data	
Wallet	<hypothecation>	FCA Authorised firm. Security of funds

If they choose not to connect their bank accounts to the app then they can still see offers from the service providers via the "unconnected" marketplace. The offers may be different to the connected marketplace and not pre-validated.

Resources/ References:

https://aimeos.org/laravel-marketplace-ecommerce

https://aimeos.org/docs/Laravel

https://github.com/SecTheater/marketplace?ref=madewithlaravel.com

https://madewithlaravel.com/marketplace

https://github.com/marketplacekit/marketplacekit

https://www.laraship.com/docs/laraship/welcome-to-laraship/

https://docs.volt.io/#section/Welcome-to-Open-Banking!

https://docs.rapyd.net/docs/the-rapyd-global-payments-network

https://www.rapyd.net/platform/collect/

https://tokenio.atlassian.net/servicedesk/customer/portal/2

https://developer.token.io/docs/#the-token-request-flow

 https://developer.token.io/landing-page-pis/

https://docs.creditkudos.com/

 https://developer.paytm.com/docs/paytm-payouts/

 https://developer.paytm.com/docs/support/

https://www.openwaygroup.com/way4-wallet-solution/

 https://docs.rapyd.net/docs/wallets

6. What to submit

- A Git repository for your solution (along with good documentation)
- [Optional] A deck explaining your prototype/solution
- [Optional] An explainer video

7.   Judging

The projects executed by the teams for the competition will be evaluated by a panel of expert judges, who are thought leaders in fin-tech and innovation space. The final decisions of the judges are to be based on the following parameters: Concept, Functionality and User Experience. The panel will assign a score to each parameter, which will then determine the ranking of each participating team. The winners of this hackathon will be the three teams with the highest total scores. In the event of a tie, subsequent votes will be held until the three winning teams have been selected.

Judges:

Richard Hallewell
The inventor of the Universal Pricing Model for Merchant Acquirers, as well as the Optimiser software that enable the world's first merchant service cost comparison platform. He also created the EU Payment Services Framework which is making 30%+ savings for Local Government payment processing.

Barry E James
A pioneer of crowdfunding and ICO eco-systems, he chairs the British Blockchain Association and founded The Crowdfunding Centre, Token Intelligence and ICOrad.io. He conceived and was first to advocate creation of the UK FCA's 'Innovation Unit', resulting in the first regulatory 'Sandbox', now emulated internationally. He created and chaired Crowdfunding: Deep Impact, the UK's first annual conference on the subject and founded TheCrowdDataCenter.

Dr Jane Thomasan
Dr Jane has worked extensively in Indonesia, Papua New Guinea and the Pacific, Mongolia and the Philippines and has held executive roles in Australia and internationally, including as chair of the Wesley Hospital Board, CEO of the Queensland Royal Children's Hospital, director of women's health in Queensland, senior social sector specialist at the Asian Development Bank in Manila, head of the Department of Community Medicine at the University of PNG, and adviser to the Health Metrics Network Executive Board at the World Health Organization in Geneva.

info@ fairerfinancehackathon.com ✉

www.fairerfinancehackathon.com 🌐

https://twitter.com/HackInclusiv 🐦

Named as Top 10 Digital Frontier Women in the emerging blockchain and digital assets market by Decade of Women Collaboratory, 2017

Shiv Aggarwal
Shiv is the Europe Lead and UK Chapter President of "Government Blockchain Association", a global non-profit organization with over 100 chapters across the world, helping governments understand and adopt blockchain technology. He is the Founder and CEO of MyEarth.Id, a decentralized identity management platform, with a vision of providing a Universal Id to all Human Beings. Global thought leader in the identity and blockchain space with over 16 years of industry experience. Keynote speaker at various international conferences, including at the US capitol and UK parliament.

8. Prizes

Winning teams will be awarded to following prizes by the panel of judges:
- 1st place team:
  Cash prize of £2000 from CPRAS and 3% revenue share of this project
  £12K worth of BiPs sponsored by BBFTA (~$16k) and
  2 free individual membership passes from GBA
- 2nd place team:
  £6k worth of BiPs(~$8k) sponsored by BBFTA and 2% revenue share of this project
  60% discount voucher on individual GBA membership * 2
- 3rd place team:
  £2K worth of BiPs (~$2.5)sponsored by BBFTA and 1% revenue share of this project
  30% discount voucher on individual GBA membership * 2

The top three submissions will also be offered a mentoring package worth up to £6,000.
All participants that submit a workable solution get a share from 5% of generated revenue from the final solution.

More information regarding the prizes will be announced on www.fairerfinancehackathon.com

9. Intellectual property rights, guarantees, and release of responsibility

By participating in the hackathon and accepting these Regulations, each participant hereby:
- Declares that each prototype or mock-up presented is an original work and in no way violates, in whole or in part, the intellectual or industrial property rights of others and releases CPRAS and its partners from any and all responsibility, liability, or request for compensation for damages that should be made by any third party.
- Acknowledges that the produced prototype will be used by CPRAS for further development and CPRAS reserves the rights of ownership, intellectual property post hackathon submission.

10. REGISTRATION

Registration for participation in the hackathon is to take place online by providing all necessary information using the form that can be found at www.fairerfinancehackathon.com. Registration page is now open. Any applications submitted with incomplete or inaccurate information will result in the team being disqualified from participation in the hackathon. CPRAS rulings in this regard are final. Registration does not ensure participation in the hackathon.

11. CONFIRMATION OF PARTICIPATION

The teams or individuals selected in accordance with the General Regulations above will receive official confirmation of their acceptance to the hackathon sent to the e-mail address provided at the time of registration. This official notification will also provide details on the initiative and all information needed to come to participate in the competition.

12. HACKATHON: THE EVENT

The hackathon will begin at 9:00am on September 01, 2020, with the accreditation of the teams selected and will end at 11:59pm on September 30, 2020. The prototypes or mock-ups are to be turned in by no later than 11:59pm on September 30, 2020. Any submission or adjustment after this time will not be considered. All teams will have access to a group of mentors, selected by CPRAS, who will be available to assist and answer any questions that you may have.

13. Project evaluation and selection of winners

The judges will evaluate all the work presented by the team based on the following 3 parameters: Concept, Functionality and User Experience

info@ fairerfinancehackathon.com

www.fairerfinancehackathon.com

https://twitter.com/HackInclusiv

Evaluation process:

- Step 1 - Each team's work will be assessed by CPRAS. 6 teams would be shortlisted and their solution would then be further assessed by the judges. Each judge will assign a score, not shown to the other judges, and the sum of the scores of the entire panel will determine the final rankings.
- Step 2 - Once the final rankings have been determined, the top 3 positions will be announced.
- Step 3 - Award ceremony and the press release announcing the top 3 teams.

FINAL COMMENTS

- Participation in the hackathon is subject to observance of the rules which all participants have accepted upon submitting their applications, and to authorizing CPRAS to handle personal data and the artifacts produced during the event.
- Participants who fail to comply will be removed from the event, as will those who hinder and/or seek to compromise the proper functioning of the judging process or the outcome of the event as a whole by way of fraudulent or other prohibited conduct.
- In addition to the above, participants undertake to observe the following simple rules of conduct:

  o Respect the other participants
  o Do not use expressions that incite violence or forms of discrimination, obscenity, or defamation.
  o Avoid content that is offensive, vulgar, defamatory, or that violates privacy or is otherwise against applicable law, as well as advertising content or content that concerns political or religious views or other such ideologies.
  o Avoid developing applications that are clearly off topic compared to the assigned challenge.
  o Do not violate copyrights, trademarks, or other such rights.
  o Observe data-protection legislation.

Let's Hack!

We hope that the information above excites you to get all the creativity, talent, and hustle together to develop something meaningful to combat the poverty trap and the debt spiral.

Ask us anything (related to the hackathon)! The better you understand the challenge, the better equipped you will be to develop a solution that is relevant, sticks and scales.

info@ fairerfinancehackathon.com ✉

www.fairerfinancehackathon.com 🌐

https://twitter.com/HackInclusiv 🐦