Soombang

Mobile application as integrator between Crowdfunding Platform with Grab

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1. The Problem

Background – See the Opportunity

- **Crowdfunding is growing annually and globally**
  - Data gathered by Learnbonds.com indicates that the global crowdfunding transaction value will **grow** annually at the rate of **12%** between 2020 and 2023.
  - The data shows that within the next three years, the value will be **$11.98 billion.**

Especially in Indonesia, the potency of market is indeed exist :

- CEO of Frontier Capital predict crowdfunding market potential reaches **IDR 75 trillion**
- based on *World Giving Index* data (Charities Aid Foundation, 2018), generosity level of Indonesian people is **improved** from rank 7 to rank 1. This statistic is proven by a lot of activities like 'Sahur on the Road' , shown by picture below

BUT There's potential of frauds in Crowdfunding

CNN Indonesia | Home | Nasional | Internasional | Ekonomi | Olahraga | Teknologi | Hiburan | Gaya Hidup | CNN TV

Home > Nasional > Peristiwa

Situs Kitabisa Tutup Penggalangan Dana Cak Budi

CNN Indonesia

Selasa, 02 Mei 2017 10:53 WIB

- **Cak Budi held a campaign to get donation, but from the donation, he bought a car and a phone for himself**

hitechglitz.com/indonesia/ftc-menyelidiki-700-000-kampanye-crowdfunding-untuk-penipuan/

Gadget | Gaya hidup | Tren | Inovatif | Teknologi Baru | Teknologi Cerdas | Teknologi | Teknologi Dunia

BREAKING NEWS SUV listrik per

Home / Gaya hidup / FTC menyelidiki $ 700.000 kampanye crowdfunding untuk penipuan

FTC MENYELIDIKI $ 700.000 KAMPANYE CROWDFUNDING UNTUK PENIPUAN

Gaya hidup 15 Views

Facebook Twitter Google + LinkedIn Pinterest

- **FTC conduct investigation for $700.000 campaign in crowdfunding that has been used for fraud**

suara.com/tekno/2019/05/13/163303/minta-donasi-kuliah-s2-di-oxford-jejak-digital-gadis-ini-jadi-sorotan

Arkadia | SUARA.COM | MATAMATA.COM | BOLATIMES.COM | HITEKNO.COM | DEWIKU.COM | MOBIMOTO.COM

suara.com

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Pasalnya, dalam jejak digital gadis ini, dirinya terlihat menggunakan beberapa barang branded yang tentunya memiliki harga yang mahal.

"Agak aneh ngga sih buat penggalangan dana gini? Ya maksud aku kalo dr awal uda yakin ga bisa menuhin biaya utk kuliah di situ kenapa harus maksain diri? Berlian diletakin di mana aja tetap berlian kok.." tulis cuitan akun @ni****1 membalas.

- **People who rich enough (indicated by bought branded goods) held campaign for her own education cost**

There's Also a Lot More Community That Needs a Helping Hand

-11fess ⭐OPEN DONASI!!!!!⭐
Halo.. warga twitter yang baik,
Di luar sana masih banyak orang yang membutuhkan kebaikan kita. Yuk berbagi, dengan cara menyisihkan sedikit uangmu untuk berbagi makanan bagi masyarakat sekitar solo yang membutuhkan.
Donasimu insyaallah akan (cont)
Translate Tweet

Ponpes Dan Panti Asuhan Khosyatillah
@DanPonpes · Jun 11

Dibalik wajah polosnya,mereka menyimpan rasa ingin belai kasih sayang ayah dan ibu.yuk **donasi** seikhlasnya untuk kebutuhan mereka saat ini membutuhkan bahan pokok **makanan** bergizi, insyaallah berkah amanah.aamiin.REK BRI 604901019946532 a/n Panti Asuhan khosyatillah.WA081617632956

2 5

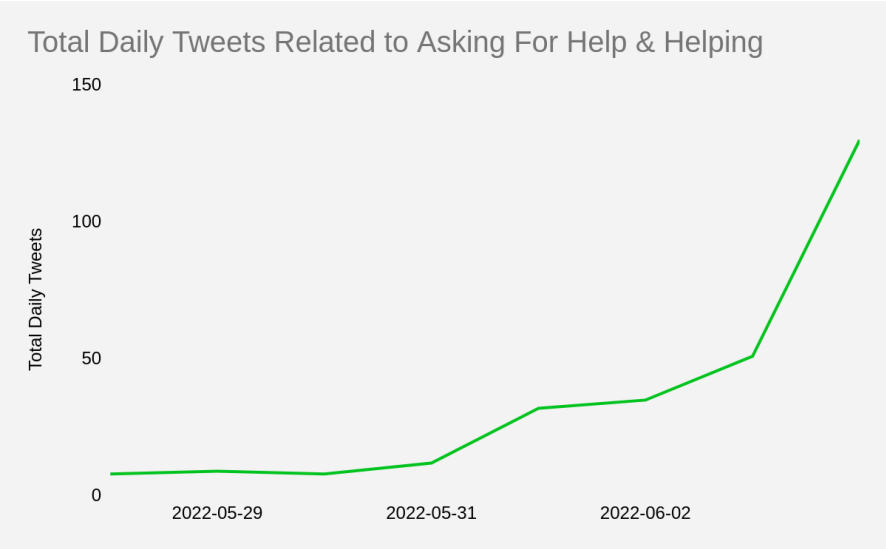
Niee__dhaa
@el__yassien · Jun 11

Bismillaahh...
Sudah terkumpul 1.590.000 **bantuan** dari para dermawan
Untuk melunasi pembayaran bahan² **makanan** anak², masih harus penuhi sisa 2.596.000 lagi untuk bisa lakukan pelunasan.
Semoga Allah sampaikan kpd para muhsinin yang ingin berbagi dg anak² yatim&dhuafa🙏

2 13 49

Some photos of campaign that ask donation in the social media, even though posts on social media can be easily shifted to the bottom

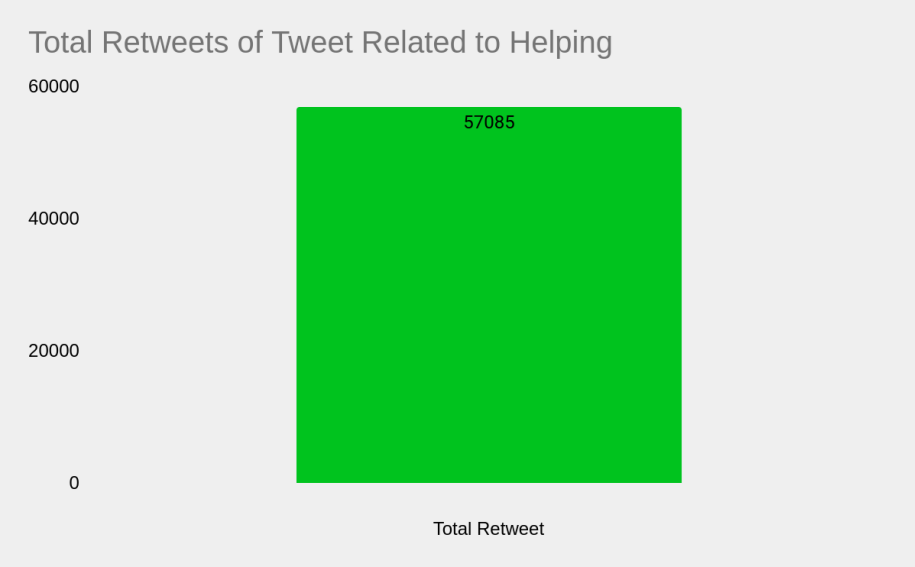
Over The Period of 1 Week There Are 285 Tweets Related to Asking for Help & Helping



*Data Collected From Twitter API from 28th May 2022 - 6th June 2022 Limited to indonesian Language Only

The data of tweets related to asking for help and helping shows there're initial interest of people that willing to help and **needed a platform** to voice out their help

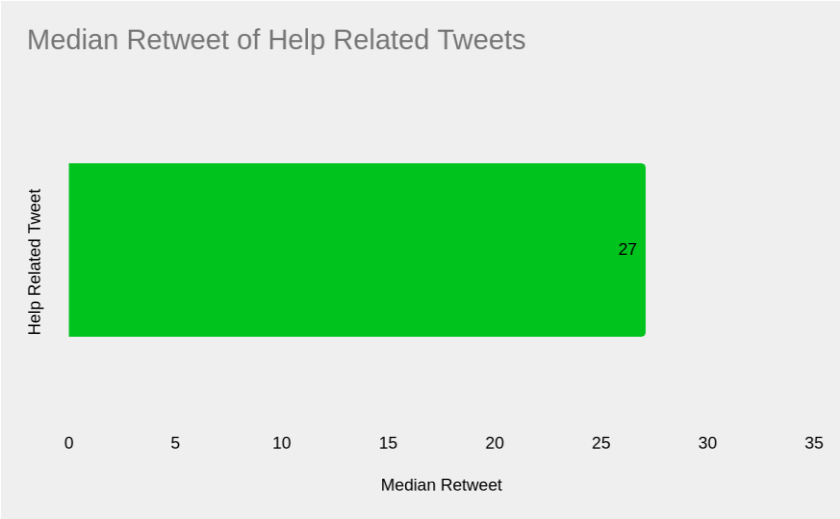
With Over 50K of Retweets of Tweet Related to Helping & Asking For Help Shows That People Are Keen to Help

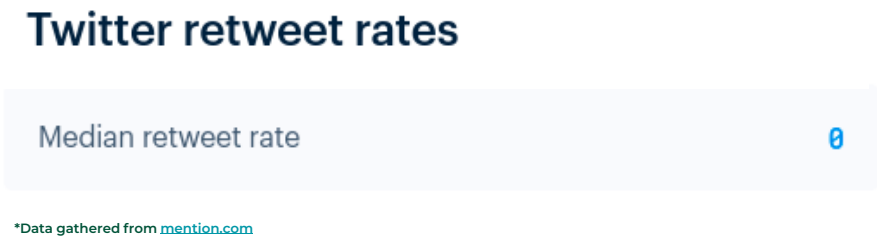


*Data Collected From Twitter API from 28th May 2022 - 6th June 2022 Limited to indonesian Language Only

In a span of 1 week there are around **57K** of retweets of tweet that are related to helping, this shown as an **initial interest** that the community are willing to help people in needs

Help Related Tweets Received Way Higher Engagement Compared to Regular Tweets





*Data gathered from mention.com

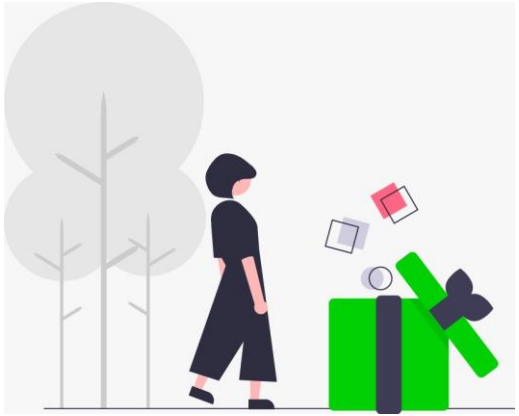
In comparison with median retweet rate of twitter (0), help related tweets received way more engagement from the community (27). This shown that the community are interested with this kind of act

*Data Collected From Twitter API from 28th May 2022 - 6th June 2022 Limited to indonesian Language Only

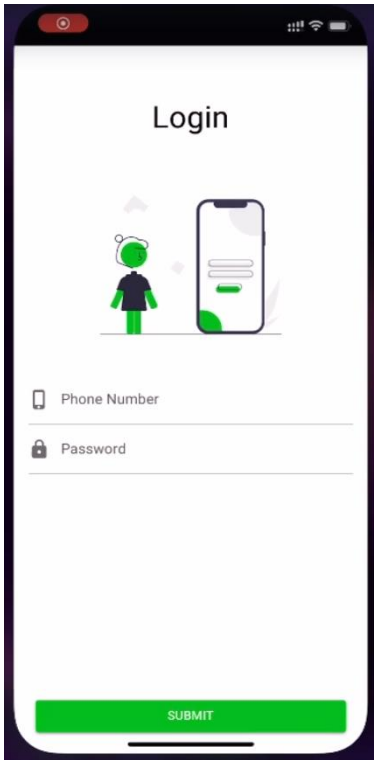
2. The Solution

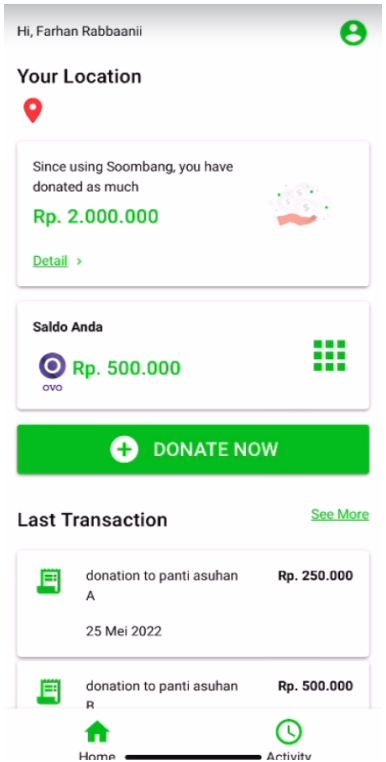
Our Apps – Soombang

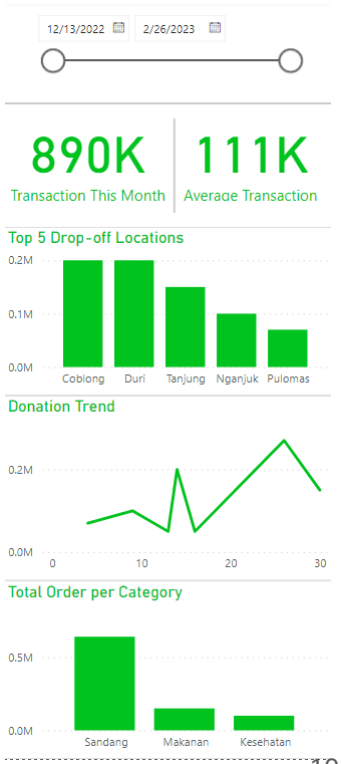
it's from 'Sumbang', Indonesian's word for Donate



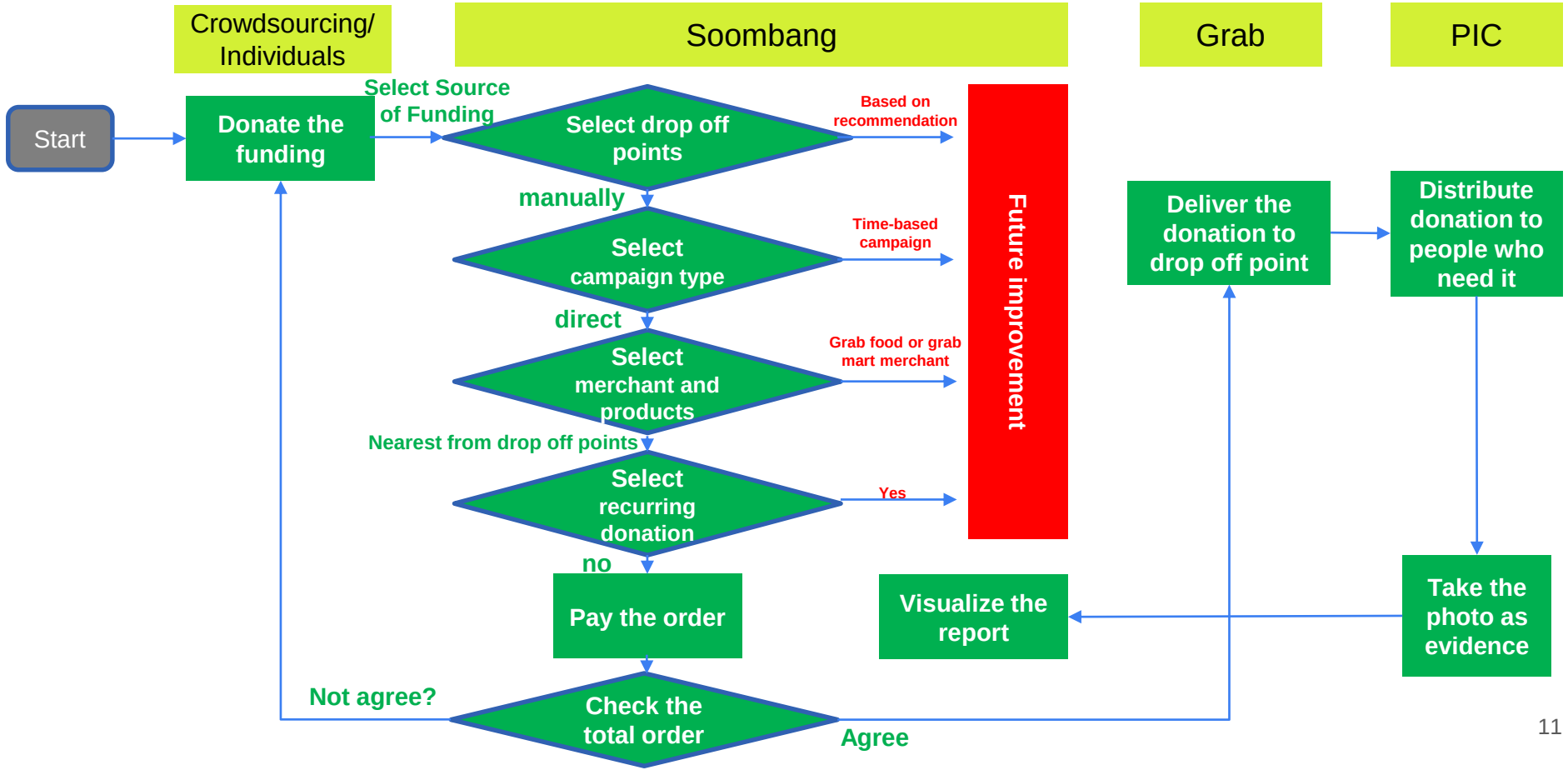
Our App Logo







Business Process of Our solution



Real World Potential is Yet to Come!

That demo of our app is only the MVP (Minimum Viable Product)
This apps could reach its optimal potential after being developed further through these phase :

Q3 2022 – Q1 2023
Stage 1 (6 months)

- Integration with many crowdsourcing platform by providing integration APIs
- Integration with GrabFood / GrabMart API to provide products that are potential as donation product
- Provide time-based campaign as diversification of how to donate → reach more donor

Q2 2023 – Q4 2023
Stage 2 (9 months)

- Utilize machine learning to recommend best location to donate based on supply and demand and other feature like gini index and total poor people)
- Layered tier of admin cost, such as 10% for small transaction, 3% for big transaction

Q1 2024 – Q2 2024
Stage 3 (3 months)

- User private data verification by using NIK or NPWP for upgraded privileges

Q2 2024 – Q4 2024
Stage 4 (6 months)

- Recurring transaction feature for frequent donors (e.g. monthly, weekly, etc.)
- Convert-to-PDF feature for donation reporting

3. Social Impact

Social Impact – Tackle the Challenges

- **Accuracy**
  - user don't have to think by themselves "Who need this donation" since machine learning will cover it after considering some important feature

- **Speed and Comfort**
  - User could give social impact rapidly just with some click from their bed

- **Cover wide area**
  - with the help of Grab fleet and easiness of this app, potentially there will be more and more donor emerge, which means cover more area that might not be reachable yet

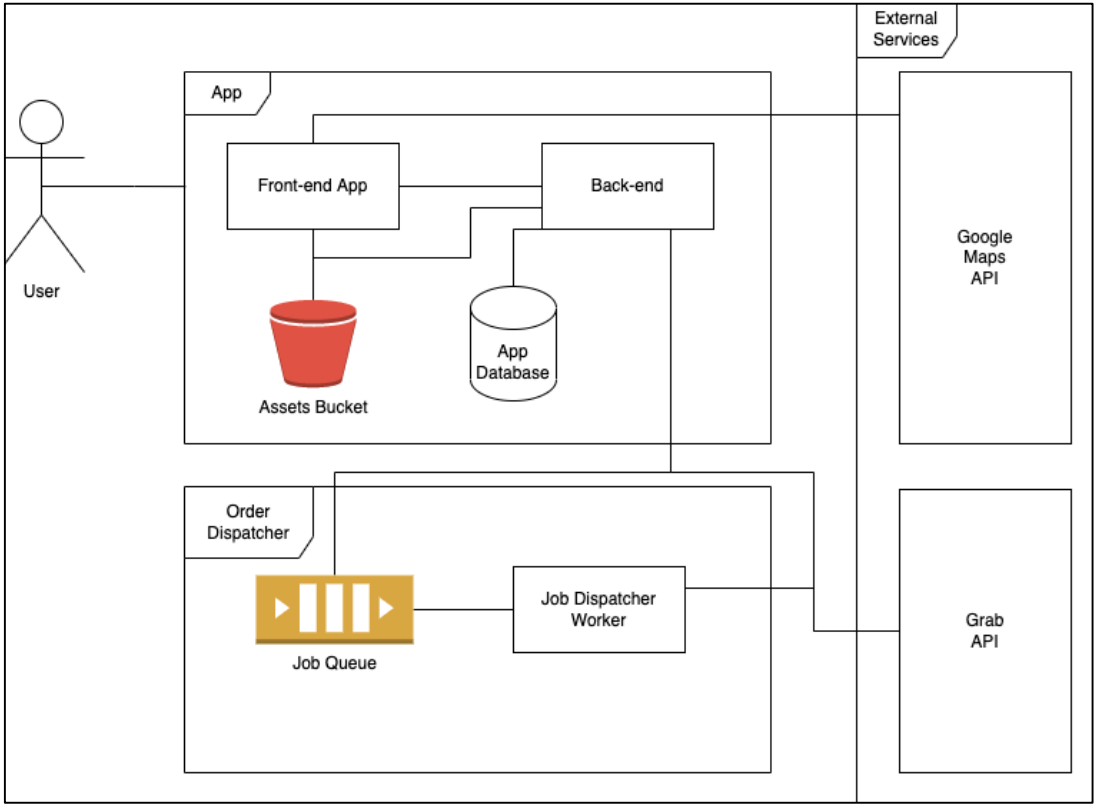
- **Transparency**
  - crowdfunding platform which don't have transparency feature could still operate and leave this matter to our app

4. Under the Hood

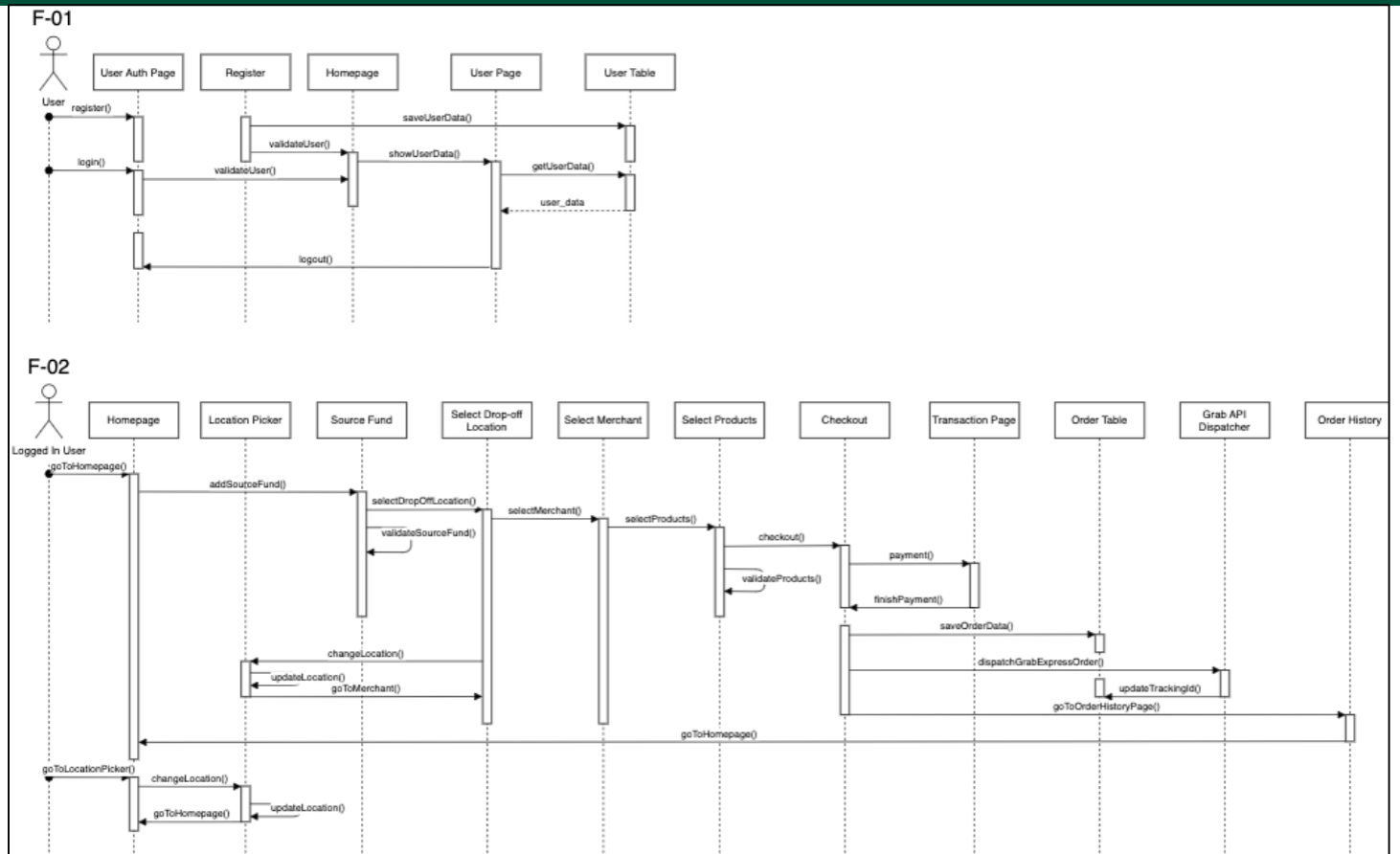
Under the Hood – Tech Stacks

Components	Tech Stack Used
Front-end	Vue.js,
Back-end	Golang
Order Dispatcher Worker	Python
Cloud Stack	AWS Lambda, EC2, and SQS

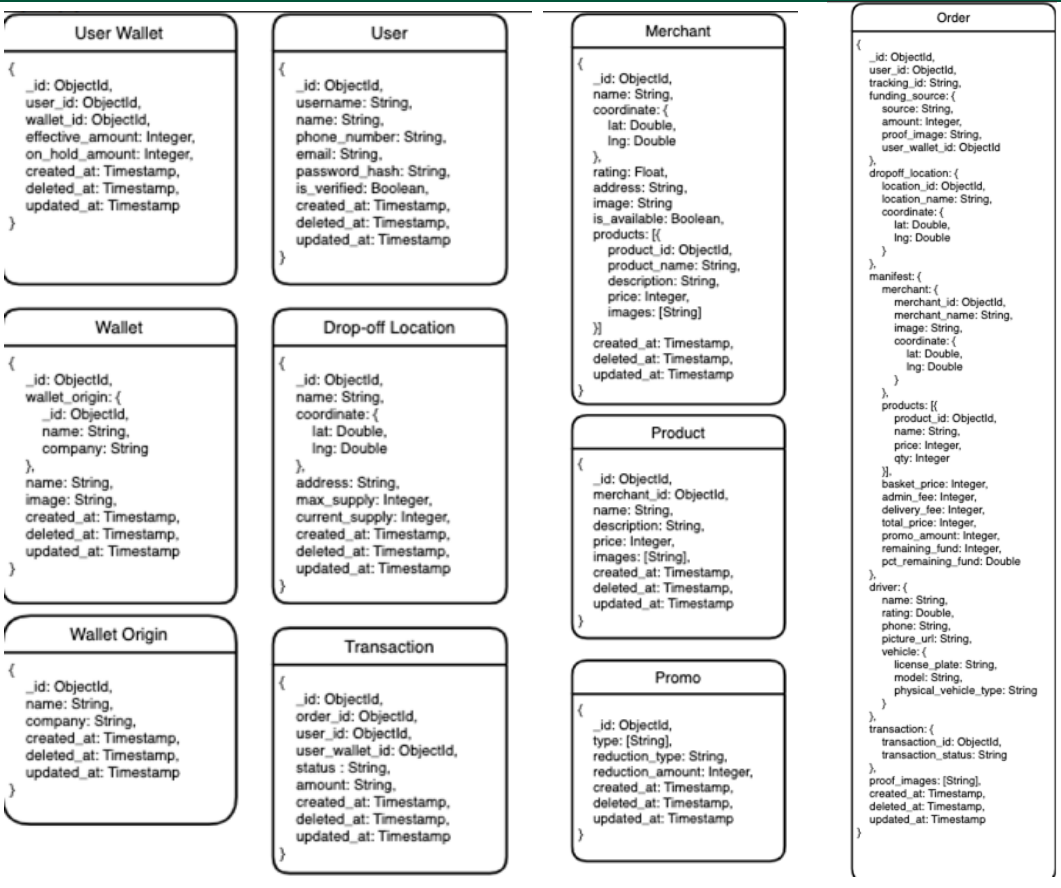
Under the Hood – Software Architecture



Under the Hood – Sequence Diagram



Under the Hood – Database Design



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- https://twitter.com/DanPonpes/status/1535419096690720768
- https://twitter.com/el__yassien/status/1535441420018155522

Appendix

Functional Requirements

F-01: Users can do login, register, and logout	
F-01-01	Users can log into the app using phone number and password
F-01-02	Users can register into the app using phone number and password
F-01-03	Users can log out from the app
F-01-04	Users can see their account details and settings

Functional Requirements

F-02: Users can place orders	
F-02-01	Users can input their source of funding upon making order
F-02-02	Users can select a drop-off point as destination ordered by nearest from current location by using pin point or by search
F-02-03	Users can select a merchant to buy product ordered by nearest from selected drop-off point
F-02-04	Users can select multiple products from selected merchant as manifest
F-02-05	User can see checkout page and see calculated price, promo, and additional fees
F-02-06	System can dispatch order creation to GrabExpress via the Grab API
F-02-07	Users can set their current location by pin point or by search
F-02-08	Users can see their remaining funding and the percentage of the remaining funding after payment calculation, and give warning if the basket price is below (basket_price - lowest_unit_price)
F-02-09	Grab drivers can upload images containing proofs that the manifest is put safely

Functional Requirements

F-03: Users can pay their orders	
F-03-01	Users can make a transaction from their order
F-03-02	Users can connect to their wallet of choice
F-03-03	Users can select their wallet of choice
F-03-04	System can manage the funding state

F-04: Users can keep track of their orders	
F-04-01	Users can see their order status
F-04-02	Users can interact with GrabExpress tracking page
F-04-03	Users can cancel their ongoing orders in a determined state
F-04-04	System can synchronize order status with GrabExpress via the Grab API
F-04-05	System can dispatch order cancellation to GrabExpress via the Grab API

Functional Requirements

F-05: Users can see their order history	
F-05-01	Users can read their own order histories
F-05-02	Users can see their aggregated order statistics over time
F-05-03	Users can see their overall charity amount on homepage

Screenshot of Some Data

Berdasarkan data *World Giving Index* (*Charities Aid Foundation*, 2018), tingkat kedermawanan masyarakat Indonesia naik dari peringkat ke-7 menjadi peringkat ke-1. Data ini menunjukkan bahwa tingkat kepedulian masyarakat Indonesia terhadap permasalahan sosial mengalami peningkatan yang cukup signifikan. Hal ini juga membuktikan bahwa sebagian besar masyarakat Indonesia sudah memiliki karakter yang senang berbagi. Seiring dengan meningkatnya kepedulian masyarakat akan pentingnya berbagi, semakin banyak juga aksi sosial serta komunitas sosial yang bermunculan di masyarakat. Salah satu bentuk aksi sosial yang sedang berkembang di Indonesia adalah kegiatan *crowdfunding* dan *crowdsourcing*.

Berbeda dengan komunitas sosial yang umumnya lebih spesifik bergerak untuk suatu tujuan tertentu, *crowdfunding* mengumpulkan dukungan dan bantuan dari publik yang tidak hanya dalam bentuk material tetapi bisa juga dalam bentuk non-material yang bertujuan untuk membantu komunitas atau membantu terwujudnya sebuah proyek sosial yang sedang membutuhkan bantuan (Andriani, 2014). *Crowdfunding* dapat dilakukan dengan banyak cara, yaitu melalui panggilan terbuka di halaman web, melalui *memposting* pemberitahuan di tempat umum, atau melalui *platform online* (Wash, 2013).

CEO FC, HI dalam pidatonya menyatakan "Pasar *crowdfunding* di Indonesia saat ini masih kurang dari 5%, namun saya percaya bahwa industri ini akan tumbuh dengan potensi pasar mencapai Rp 75 triliun." (Jemadu dan Pratomo, 2018). Walaupun industri *crowdfunding* di Indonesia saat ini sedang berkembang, namun tidak semua kegiatan penggalangan dana ini bisa meraih kesuksesan dan mendapatkan dukungan dari publik.

- https://journal.prasetiyamulya.ac.id/journal/index.php/ibr/article/download/571/381/

GLOBAL CROWDFUNDING TRANSACTION VALUE TO TOP $12BN BY 2023

Data gathered by Learnbonds.com indicates that the global crowdfunding transaction value will grow annually at the rate of 12% between 2020 and 2023. The data shows that within the next three years, the value will be $11.98 billion.

Crowdfunding transaction value consistently grows over three years

According to the data, in 2020 the total transaction value for crowdfunding is $8.53 billion while estimates for next year are $9.97 billion. In 2022, the value is set to be $11.11 billion.

Over the last three years, the transaction value has been growing steadily to register $3.98 billion (2017), $5.32billion (2018) and $6.92 billion (2019).

- https://middleeast-business.com/global-crowdfunding-transaction-value-to-top-12bn-by-2023/