

Impact Areas * where to put this slide? *

Identified the most impactful ways to help the refugees

- Shelter
- Food
- Health Services
- Transport
- Translation
- Legal
- Other



Crisis Management App

avanade-global-hackathon-spring-2022

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Inspiration



The war in Ukraine

Looking at the current affairs and the war in Ukraine, we wanted to help the people in crisis in someway.

We started by asking these questions:

- How can we help (as developers)?
- Who needs help ?
- What are the most needed help for Refugees in this situation
- How can someone volunteer ? (as individuals)
- How can institutions look for volunteers ?



Crisis App Solution

We looked at what is already in the market:

- Only provides static information
- Possibly outdated
- People had to go to many different resources / sites to get information on various topics
- There were not many AI integrated solutions (more people were needed to update)
- Could not contact people directly (video chat / phone call)
- Could we use beacons / location information to feed live data (number of people in the location, wait time, if resources are available or needed currently)

Our Approach

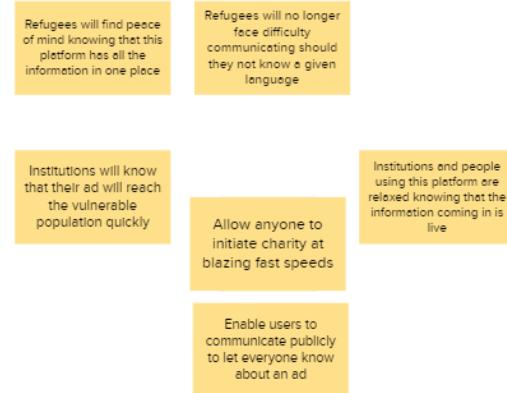
1 A Problem



2 Customer Segments



3 Unique Value Proposition (UVP)



Crisis Management App

The Crisis Management App interface shows a global map of Europe with various crisis locations marked by colored dots (green, blue, orange, pink). The map includes labels for major countries and cities. At the bottom, there is a navigation bar with tabs for 'List' and 'Map', and a search icon. Below the map is a footer menu with categories: Food, Shelter, Health Services, Transportation, Translation, Legal, Volunteering, Volunteers Needed, and Other.

This screenshot shows a zoomed-in map of Berlin, Germany, with several crisis locations marked. A callout box titled 'Location Details' provides specific information about a crisis point: 'Otto-Braun-Straße 70-72, 10178 Berlin needs plastic containers for food packaging and rodent protection. Please bring them if you can. We would also appreciate food for volunteers working in The point is open until 8 pm Thank you.' The map includes street names like Löwenberger Land, Oranienburg, and Bernau bei Berlin. The interface is identical to the first screenshot, with 'Map' selected and a footer menu at the bottom.

The Crisis Management App interface shows a list of crisis categories on the left side of the screen. Each category has a corresponding icon and a count of items. The categories are: Food (10), Shelter (12), Health Services (22), Transportation (61), Translation (12), Legal (22), Volunteering (66), Volunteers Needed (59), and Other (27). The right side of the screen is a blank white space. The top navigation bar includes 'List' and 'Map' tabs, a search icon, and a menu icon.

Information is easier to find (vs text messages in countless groups and channels) – better insight and situational awareness.

Technology & Architecture



Help for Ukrainians in Germany
32.5K subscribers

The <https://t.me/germanyhelpsukraine> channel remains active

Telegram

Help for Ukrainians in Germany GENERAL CHAT Information and assistance to those who fled from Ukraine to Germany.

We DO NOT help:
- with housing
- with transportation

Help for Ukrainians in Germany
Guys, we need 15 people at Jessnerstraße 33 to help sort out humanitarian aid. You need to bring boxes, tape and markers with you. Write me +4917661538449.

Help for Ukrainians in Germany
Jessnerstrasse - applications closed! Thank you!

Help for Ukrainians in Germany
Friends ! We help other regional groups to send ! There are cars!

We cannot purposefully deliver to cities. It is dangerous. Volunteers from the Ukrainian side are already being taken to where they can get

Help for Ukrainians in Germany
Please sign up for the list of Berlin volunteers. You will be contacted when assistance is needed:
<https://forms.gle/WC5CYXRMW7S29Ka>

Google Docs
Volunteers for Ukraine Berlin
If you are a Berliner and want to help with humanitarian aid shipments and coordination, please fill in the form

March 1

Help for Ukrainians in Germany
At the humanitarian aid point at Otto-Braun str. 70-72 10178 need cartons for packaging.

Help for Ukrainians in Germany
Vidinity channel for the support of Ukraine in Nimechchini: https://t.me/helpUkraine_Germany

Help for Ukrainians in Germany
Humanitarian aid reception point at Alexanderplatz in Berlin
<https://goo.gl/maps/oNvVjSLuvz5HT6BA> SPEECH REQUIRED: get a defense (body armor, helmets, knee pads, skinny, faces (list below), sleeping bags, karemati, zna canned (not skilo). It is NOT NECESSARY to carry clothes for the time being. Expand the hole.

Help for Ukrainians in Germany
Expanding the list of necessary medical conditions in a number of language

Help for Ukrainians in Germany
forwarded from Jen

Medications Ukraine doc.pdf
updated list of medicines

March 2

Help for Ukrainians in Germany

How to turn plain text messages from thousands of different sources into something more insightful?



Crisis Management App

List Map

Food Shelter Health Services Transportation Translation Legal Volunteering

Volunteers Needed Other

How does it work?

- Collect messages from relevant internet groups or channels (ie. Telegram channels)
- For every message, ask a few question to OpenAI about this message in order to try extracting important information (ie. location, message category, etc.)
- Clean up AI response (it's not always perfect, but most of the time good enough!)
- Add those messages to a global decentralized database, so everyone can access it
- Front end app simply displays the messages

List

Map

How AI-powered message processing works?

A message is send to the backend API from where a bunch of queries are sent to the OpenAI. The response is used to enrich the original plain text message with additional data like: *category, location, etc.*

By using OpenAI we potentially can extract any information by simply asking questions in a natural language. The challenge is to formulate the questions and how good AI is with answering them.

Try it out!

Write a message in the box below and let OpenAI analyze it and extract additional information. You can use this message below as an example:

Hello! I live in Leipzig, would like to help refugees from Ukraine. I'm a nurse with 10 years experience. I'm available after 4pm on weekdays. My email: alice@example.com

Put your message here

Process Message

Clear

Processing messages with OpenAI

A set of questions (in natural language) are asked about the message, and AI (most of the time) is able to correctly answer them.

It is possible to extract more detailed or specific data by simply asking more precise questions.

In the app we asked to extract the location first and the following question was to return location (lat, lng) using answer to the first question as an input.

OpenAI – asking questions

?

Extract physical location from this text: (your message)

Speaker icon Leipzig, Germany

?

Extract latitude and longitude from this text as { lat, lng } JSON object: (your message)

Speaker icon { lat: 51.3408, lng: 12.3713 }

?

Choose one of those categories:

- Food
- Shelter
- Health Services
- Transportation
- Translation
- Legal
- Volunteering
- Volunteers Needed

based on this text: (your message)

Speaker icon Health Services

?

For each of those categories:

- Food
- Shelter
- Health Services
- Transportation
- Translation
- Legal
- Volunteering
- Volunteers Needed

assign the probability based on this text as JSON array: (your message)

Speaker icon [

```
[{"category": "Food", "probability": 0.1}, {"category": "Shelter", "probability": 0.1}, {"category": "Health Services", "probability": 0.8}, {"category": "Transportation", "probability": 0.1}, {"category": "Translation", "probability": 0.1}, {"category": "Legal", "probability": 0.1}, {"category": "Volunteering", "probability": 0.1}, {"category": "Volunteers Needed", "probability": 0.1}]
```

Frameworks, libraries, APIs

- Angular with Material components
(speeds up prototyping, works on mobile devices, look&feel like a native mobile app)



- Node.js with Express.js
(simply yet powerful server, easy to code – JavaScript)



- OpenAI
- Telegram API
(to get messages from real channels and groups – demo app shows messages entered by people during the Ukrainian crisis)

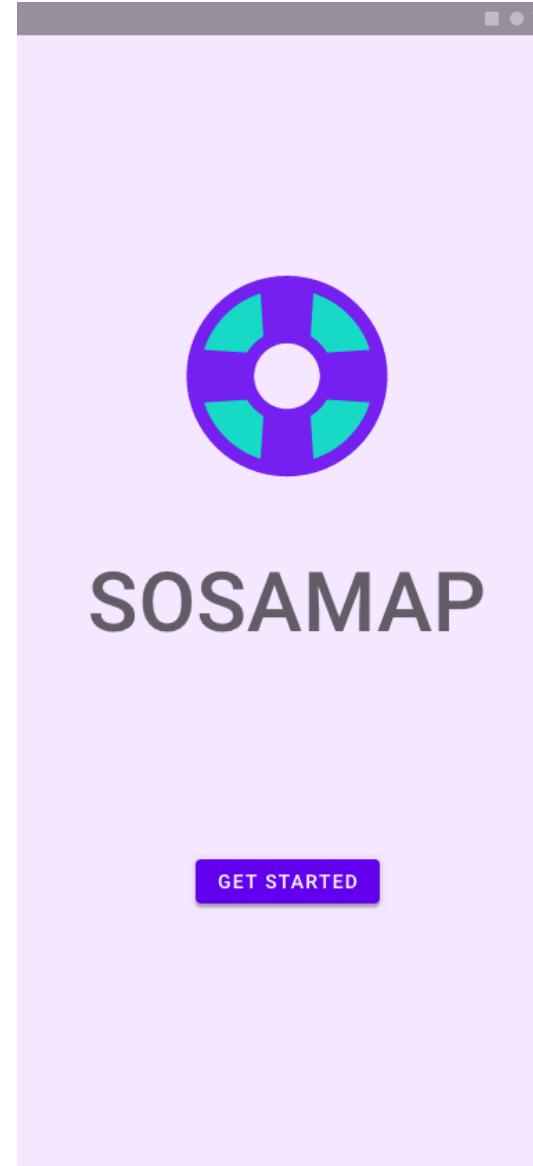




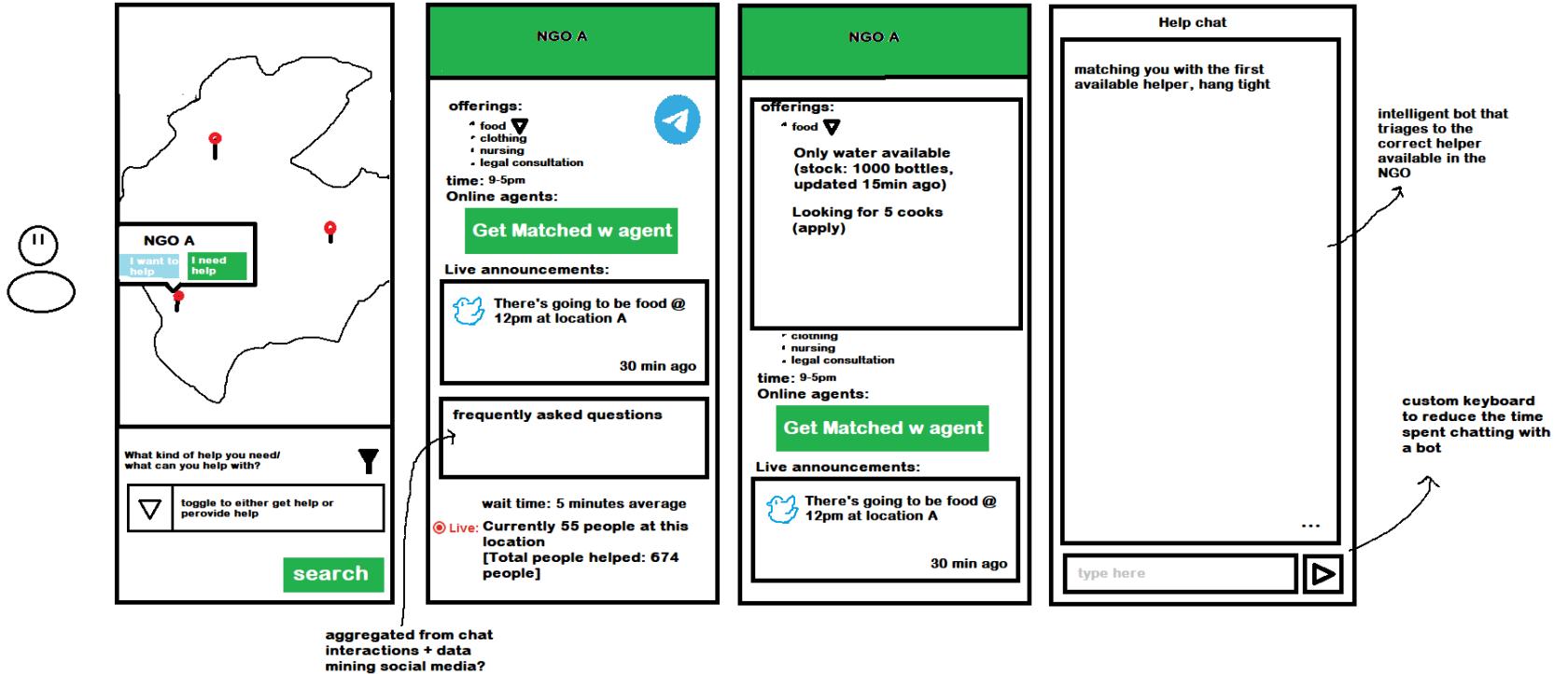
Design

The start

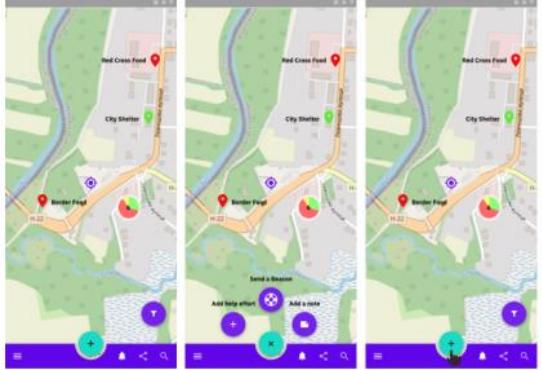
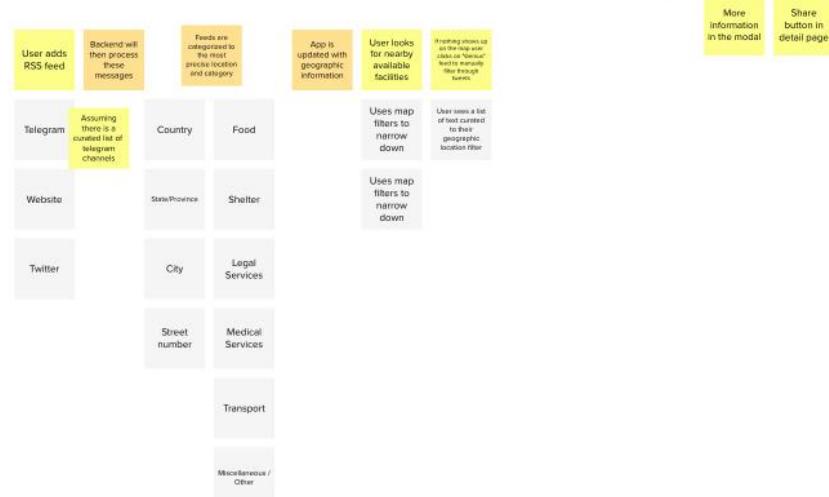
- Ideally would have interviewed people
- Design Thinking was based on top 3 problems identified
- Material design for mobile interface
- Adobe XD



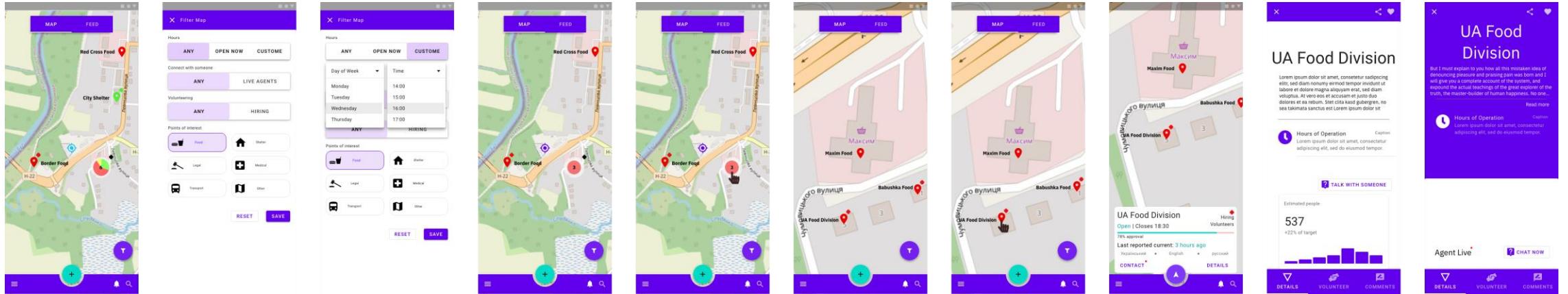
Iteration 0



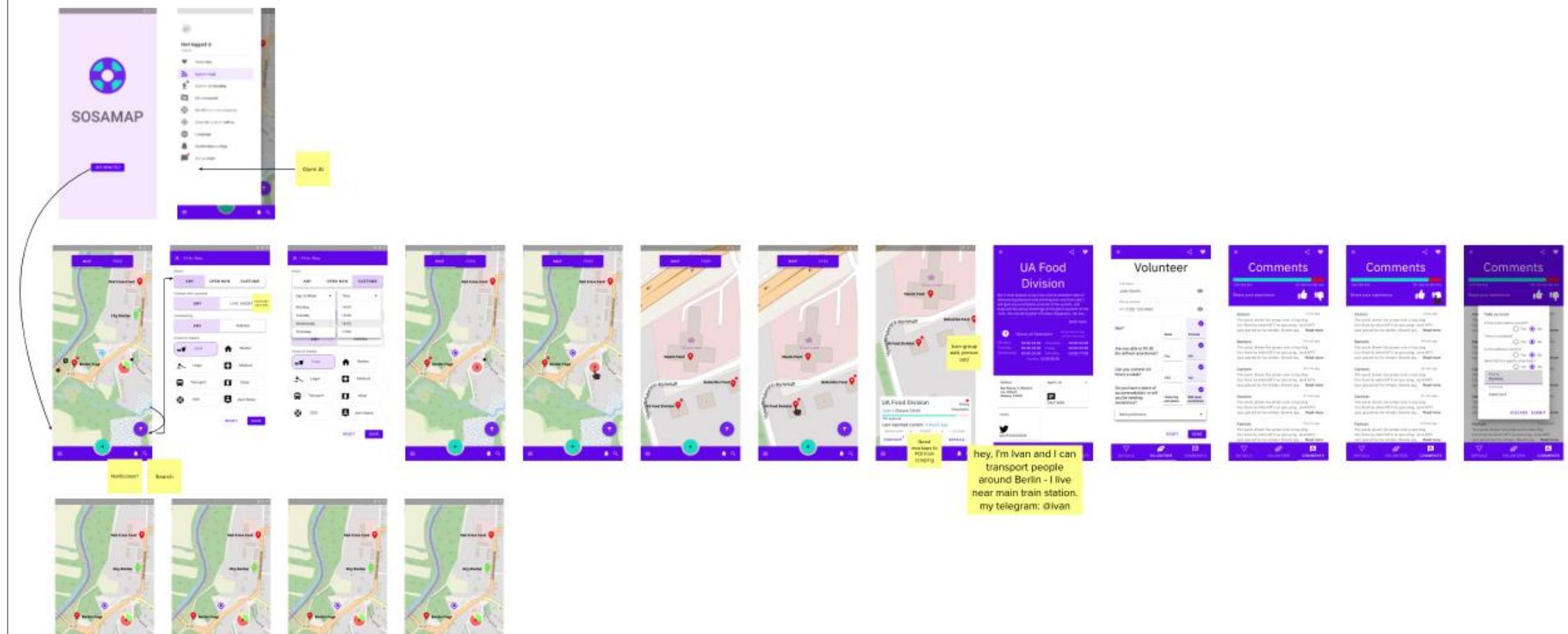
1st iteration



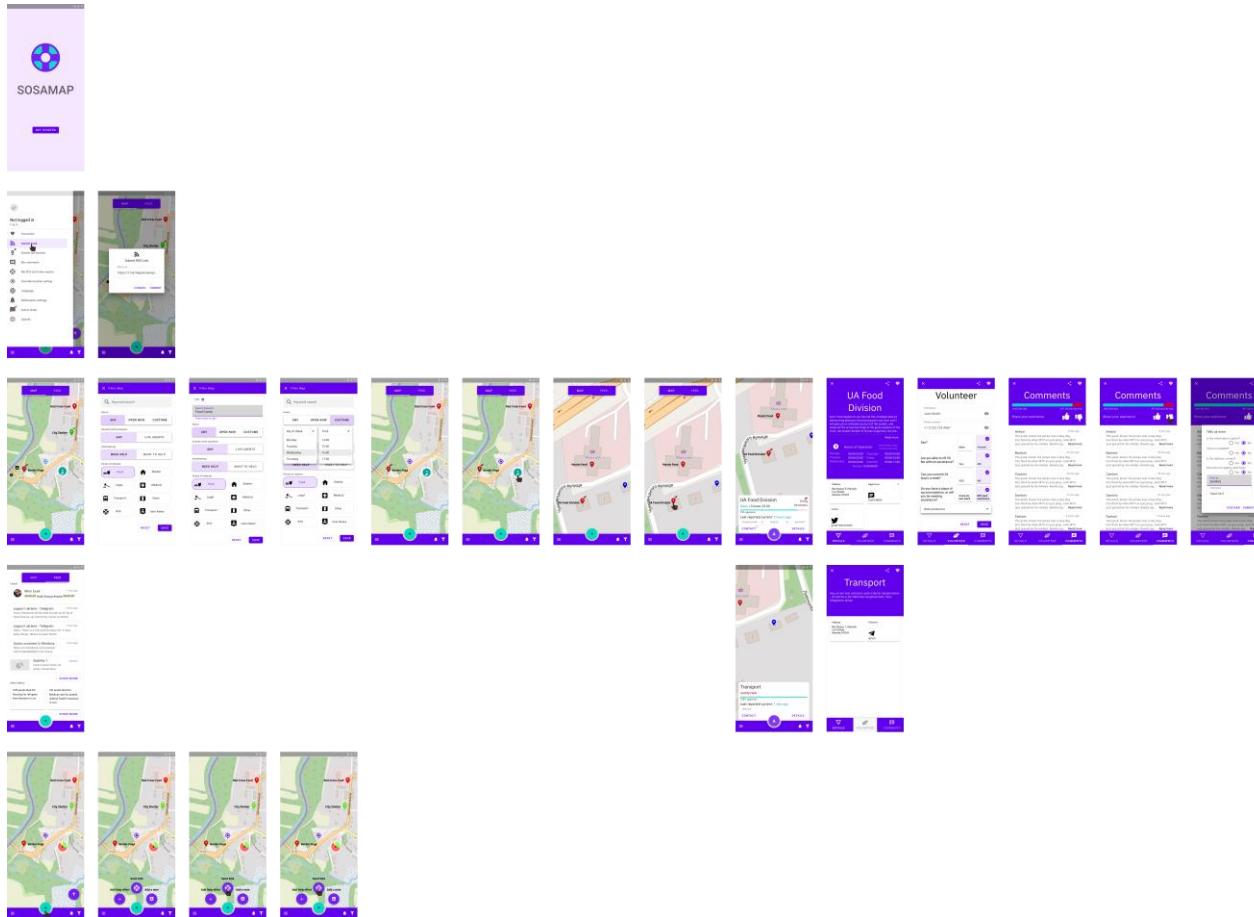
2nd iteration



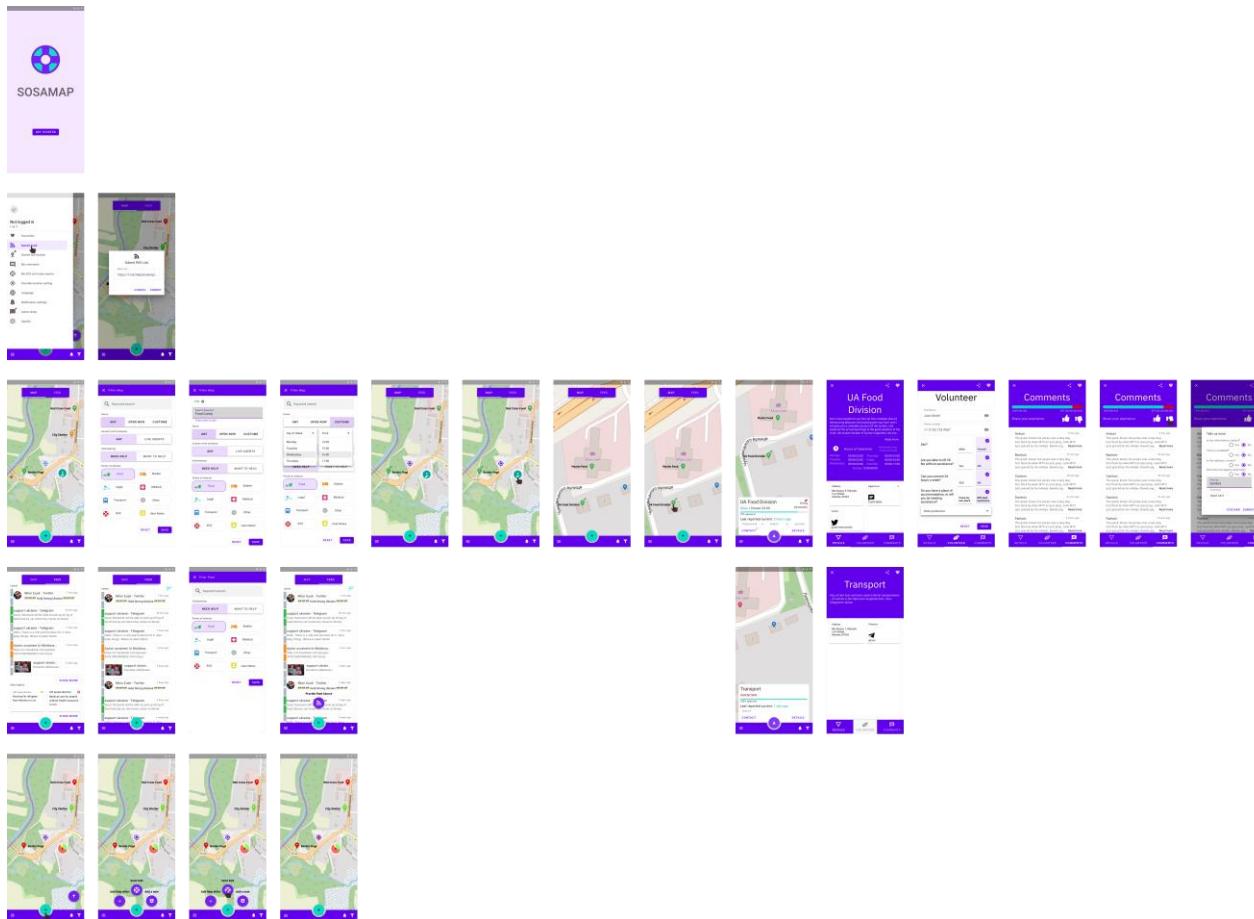
3rd iteration



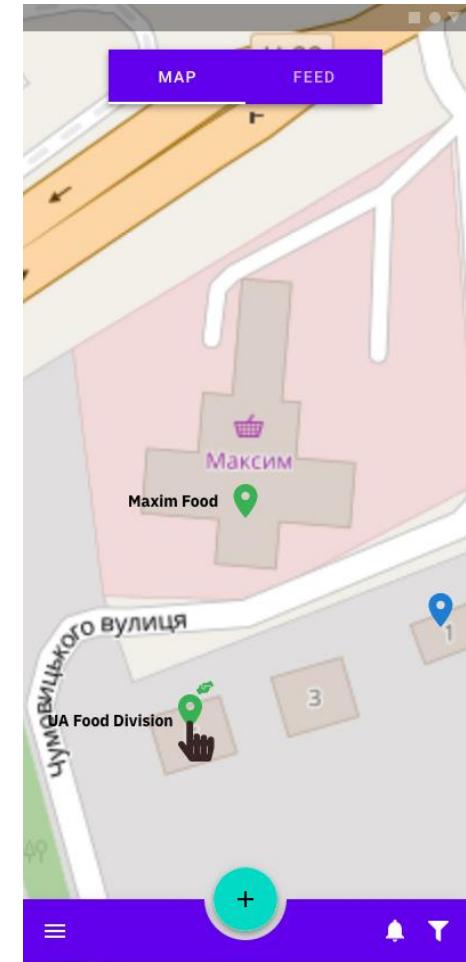
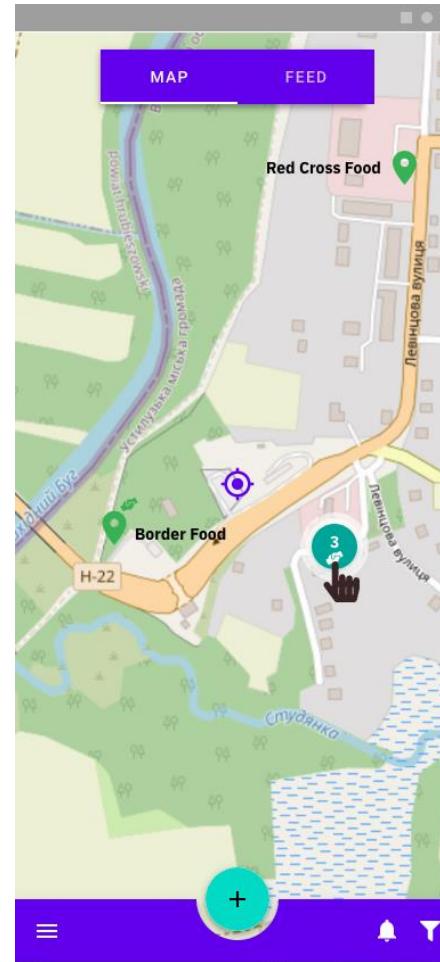
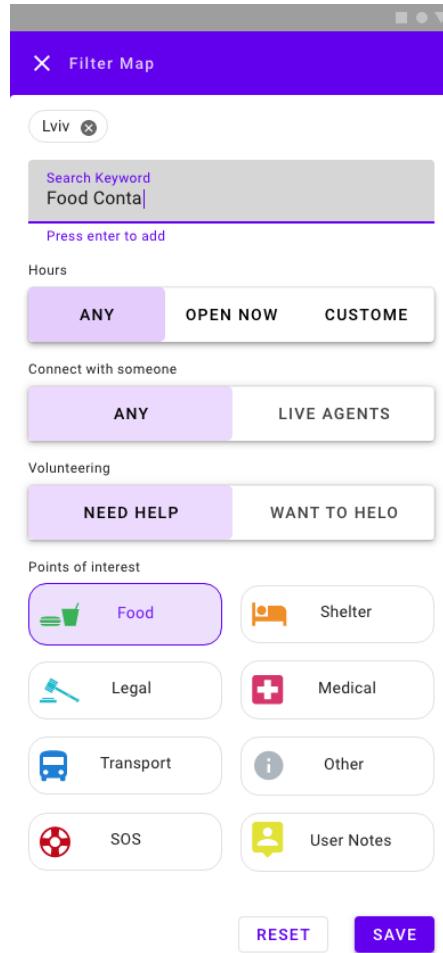
4th iteration



5th iteration



A quick overview



A quick overview



UA Food Division

But I must explain to you how all this mistaken idea of denouncing pleasure and praising pain was born and I will give you a complete account of the system, and expound the actual teachings of the great explorer of the truth, the master-builder of human happiness. No one...

Hours of Operation Information may not be accurate

Day	Open	Close	Day	Open	Close
Monday	05:00	23:00	Thursday	05:00	23:00
Tuesday	05:00	23:00	Friday	05:00	23:00
Wednesday	05:00	23:00	Saturday	05:00	17:00
Sunday 12:00-00:00					

Address: Bez Nazvy, 9, Hlynytsi, Lviv Oblast, Ukraine, 81035

Agent Live: CHAT NOW

Twitter: @UAFOODIVISION

DETAILS VOLUNTEER COMMENTS

Volunteer

Full Name: John Smith

Phone number: +1 (123) 123-4567

Sex? Male (checked) Female

Are you able to lift 50 lbs without assistance? Yes (checked) NO

Can you commit 24 hours a week? YES (checked) NO

Do you have a place of accommodation, or will you be needing assistance? I have my own place (checked) Will need assistance

Work preference

RESET SEND

DETAILS VOLUNTEER COMMENTS

Comments

1265 like this 357 did not like this

Share your experience **Like** **Dislike**

Antoni 5 min ago
The quick, brown fox jumps over a lazy dog. DJs flock by when MTV ax quiz prog. Junk MTV quiz graced by fox whelps. Bawds jog... [Read more](#)

Bantoni 34 min ago
The quick, brown fox jumps over a lazy dog. DJs flock by when MTV ax quiz prog. Junk MTV quiz graced by fox whelps. Bawds jog... [Read more](#)

Cantoni 38 min ago
The quick, brown fox jumps over a lazy dog. DJs flock by when MTV ax quiz prog. Junk MTV quiz graced by fox whelps. Bawds jog... [Read more](#)

Dantoni 41 min ago
The quick, brown fox jumps over a lazy dog. DJs flock by when MTV ax quiz prog. Junk MTV quiz graced by fox whelps. Bawds jog... [Read more](#)

Fantoni 3 hours ago
The quick, brown fox jumps over a lazy dog. DJs flock by when MTV ax quiz prog. Junk MTV quiz graced by fox whelps. Bawds jog... [Read more](#)

DETAILS VOLUNTEER COMMENTS

A quick overview

The screenshots illustrate a mobile application interface for a community platform, likely related to the Ukraine crisis.

Left Screenshot: Shows the main "FEED" screen with a purple header. It displays a list of posts under the heading "Latest". Posts include:

- Mlon Eusk - Twitter (1 min ago) - Hold Strong Ukraine
- support ukraine - Telegram (38 min ago) - Guys! Someone will be able to pick up 65 kg of food here by car tomorrow, closer to dinner,
- support ukraine - Telegram (1 hour ago) - Hello. There is a crib and furniture for it. Also baby things. Where to take? Berlin.
- Ajutor ucraineni în Moldova... (1 hour ago) - <https://m.facebook.com/groups/347615063908402/?ref=share>
- support ukrain... (2 days ago) - Donation addresses: [image]

Below the feed, there are sections for "Most helpful" posts and a "SHOW MORE" button. At the bottom is a purple footer bar with a central green circular button containing a white plus sign, and icons for a menu, a bell, and a magnifying glass.

Middle Left Screenshot: Shows the same "FEED" screen, but the second post from the top has been selected, revealing its full content.

Middle Right Screenshot: Shows a "Filter Feed" modal window. It includes a search bar labeled "Keyword search" and a section for "Volunteering". It features two main tabs: "NEED HELP" (selected) and "WANT TO HELP". Below these are categories for "Points of interest": Food (highlighted in purple), Shelter, Legal, Medical, Transport, Other, SOS, and User Notes. At the bottom are "RESET" and "SAVE" buttons.

Right Screenshot: Shows a detailed view of a post from "support ukraine - Telegram". The post content is identical to the one in the first screenshot. At the bottom right of the post area, there is a green circular button with a white "X" icon.

How design thinking helped guide us

The image consists of five screenshots illustrating a user flow for a mobile application:

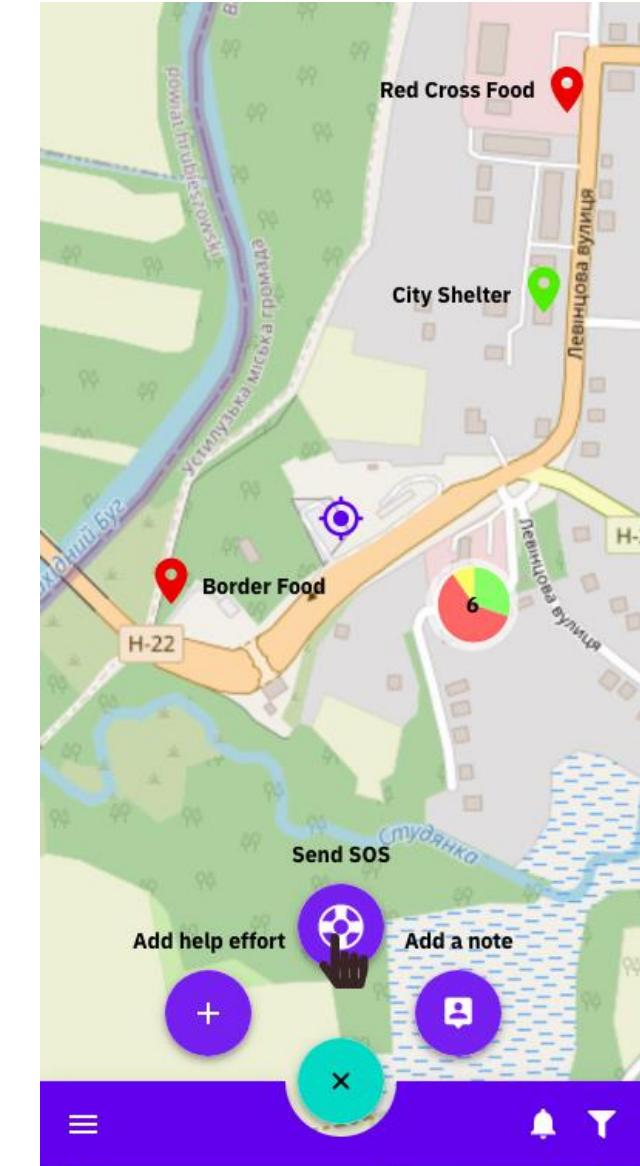
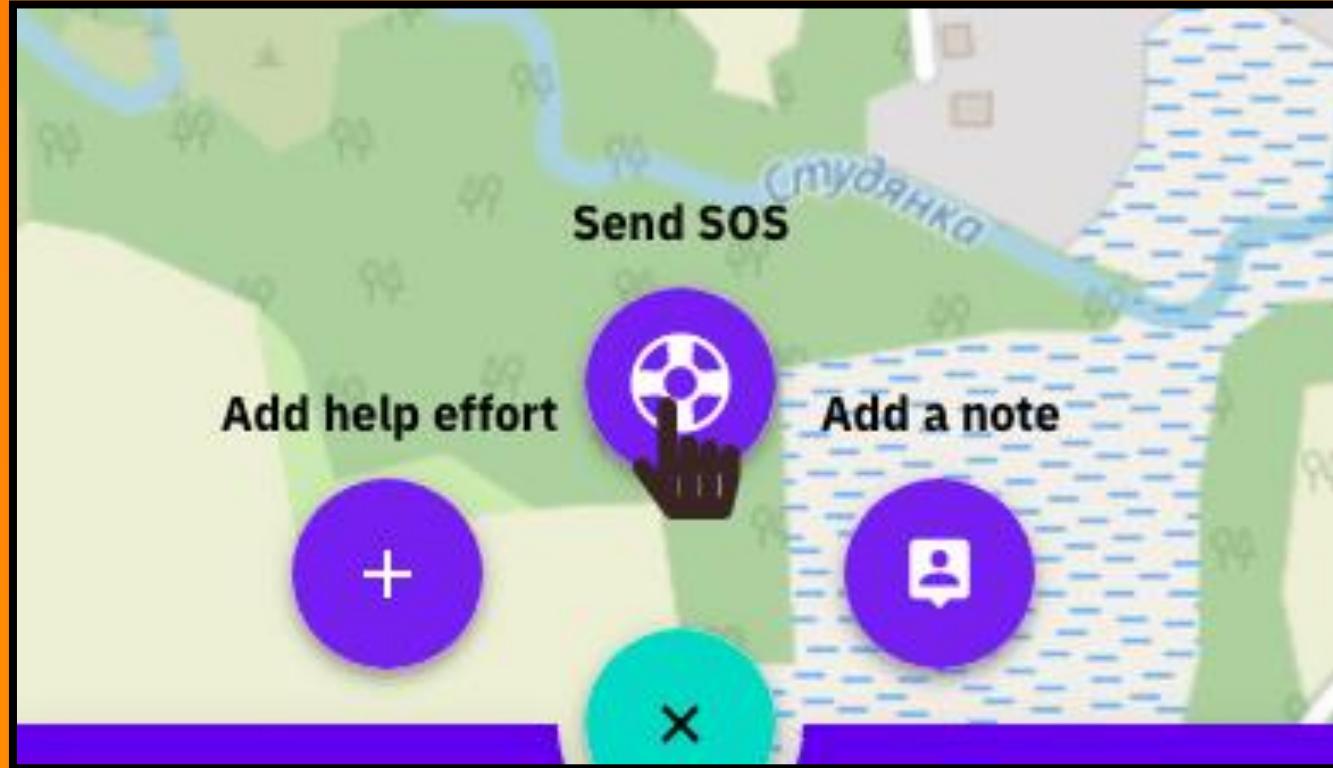
- Map View:** Shows a map with locations like "UA Food Division" and "Maxim Food". A callout box highlights a location with a green pin and a hand icon.
- Filter Map:** A modal window titled "Filter Map" with a search bar and several filter categories:
 - Keywords: ANY, OPEN NOW, CUSTOMER
 - Connect with someone: ANY, LIVE AGENTS
 - Volunteering: NEED HELP, WANT TO HELP
 - Points of interest: Food (selected), Shelter, Legal, Medical, Transport, Other, SOS, User NotesA "SAVE" button is at the bottom.
- Event Detail:** A modal window for "UA Food Division" showing "Hiring Volunteers". It includes a progress bar, event details (Open | Closes 23:00, 78% approval, Last reported current: 3 hours ago), language options (Ukrainian, English, Russian), and contact buttons for "CONTACT" and "DETAILS".
- Volunteering Filter:** A modal window titled "Volunteering" with two main buttons:
 - NEED HELP (purple background)
 - WANT TO HELP (white background)
- Volunteer Profile:** A detailed profile for "John Smith" with fields for Full Name, Phone number, Sex (Male selected), Physical ability (Yes selected), Commitment (Yes selected), Accommodation (I have my own place selected), and Work preference. Buttons for "RESET" and "SEND" are at the bottom.

How design thinking helped guide us

The image shows a composite of several mobile application screens, likely from a crisis management or volunteer platform, demonstrating the iterative design process through annotations:

- Top Left:** A map view showing locations like "Maxim Food" and "UA Food Division". A callout box highlights a "Volunteering" filter option under "Connect with someone".
- Middle Left:** A details screen for "UA Food Division". It shows a green progress bar at 78% approval and a message "Last reported current: 3 hours ago". An annotation with a black arrow points from this screen up towards the volunteering filter.
- Bottom Left:** A "CONTACT" form with fields for "Український" and "English". A black arrow points from this form up towards the volunteering filter.
- Top Right:** A "Filter Map" screen with search and category filters (ANY, OPEN NOW, CUSTOMER) for "Volunteering". An annotation with a black arrow points from this screen down towards the "CONTACT" form.
- Middle Right:** A "Comments" section showing a post by "Antoni" with a link to "Read more". Below it is another "Comments" section with a post by "Fantoni" and a comment input field.
- Bottom Right:** A "Comments" section showing a post by "Bantoni" with a link to "Read more". Below it is another "Comments" section with a post by "Cantoni" and a comment input field.

Future features





Business

What makes our app unique ?

- There are no apps currently where organizations can post a requirement for a need (volunteers, supply, professional services like health services or translation)
- There are no applications that can post an add for individuals that are able to help
- These help can be done virtually over a video call so it is not location specific
- Refugees can also post and look up for services that they are in need of
- Live data that shows how many people are at a facility, if they can offer more help, if there are enough supplies or not



vs



Business Value

With our application there are many ways to help everyone involved in a crisis

- It is a one Stop Shop for any help they are looking for
- Both Volunteers & Refugees can find resources here
- This app does not need a human to get or update feeds integrated to the system, with the help of AI and data scraping they are updated automatically.
- Data is not stale
- Can view map and identify where any help / service is offered

Future of our app

We intend to add more features to this app in the future

- In app video call service
- Connect any refugee or Volunteer anywhere in the world using this app, refugee and volunteer who can provide a professional service are matched within the app
- Live feed updated on locations by crowdsourcing, location data on the phone or by the installation of beacons
- Comment / Like section for getting feedback or legitimacy of a location
- Rating of service provided within in the application
- Can be used for any kind of crisis or situation in the future (Earthquake, general volunteering)

Monetization & Sustainability

- As there is yet an app that connects organizations and volunteers to people in need there is a very good chance to monetize this application

As this is a crisis application, it will need to be sponsored or crowd funded

- This application can also have a feature to accept donations like Wikipedia
- If there are services provided for a cost within the application, then there can be a % that is shared
- We will need to advertise the application within the organizations that could potentially use our services (UNISEF, Red Cross, World Health Organization)

Links

Demo app:

<https://crisisapp.queueoverflow.com/>

Source code:

<https://github.com/veenamathews/crisis-management-app>



avanade