4th SDGs Youth Summer Camp

- Renewable Energy Alternative Campaign in Africa -

Frugal Hub - Group 1

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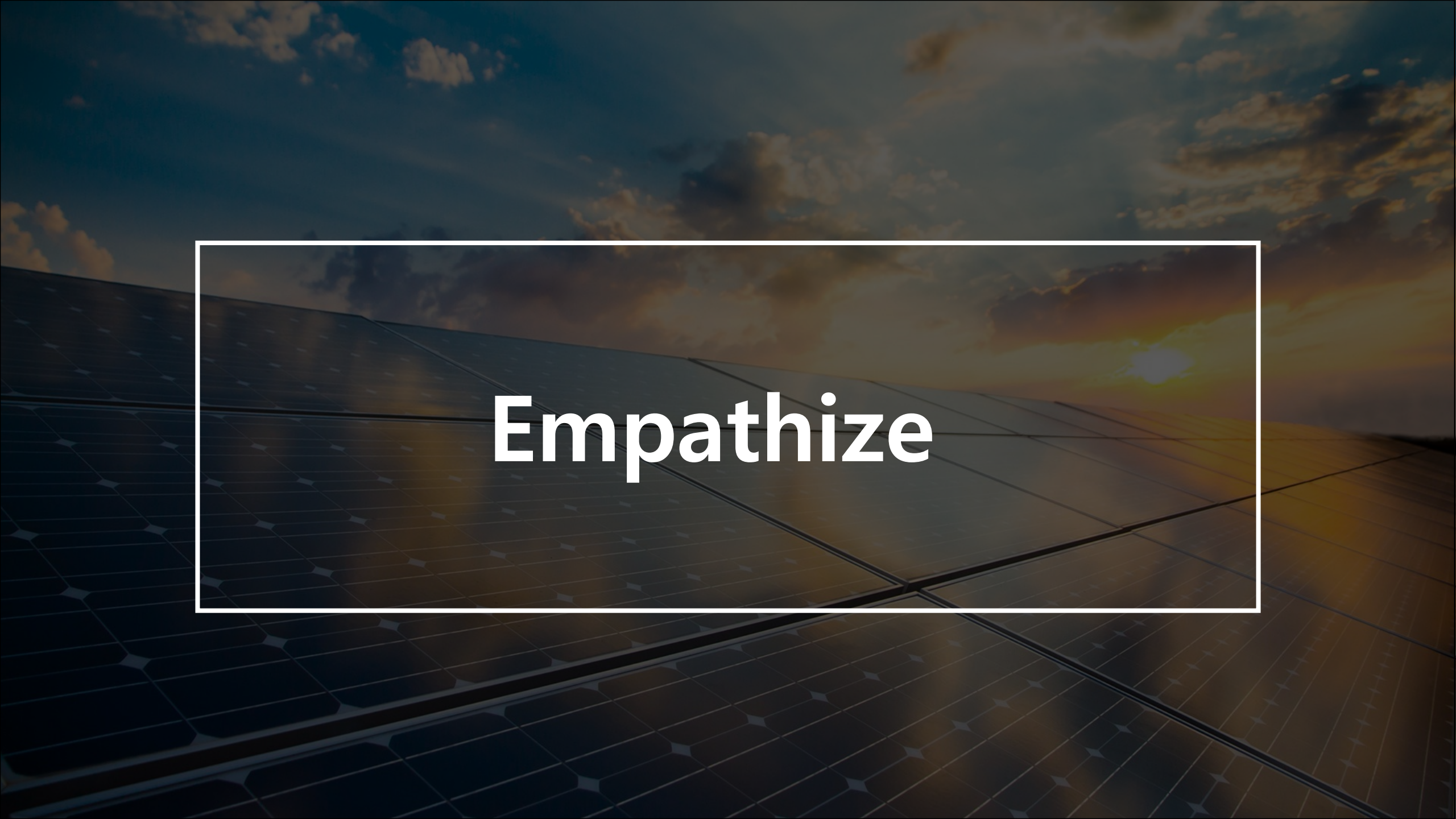
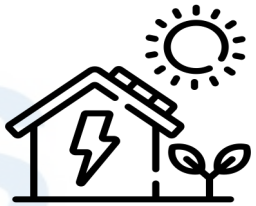
2020.8.20


Empathize

Empathize



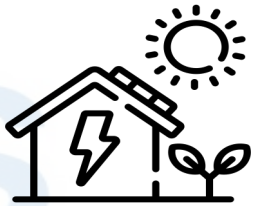
"Around 600 million people lack access to electricity in Africa"

- Ghana faces energy supply challenges that affect individuals, businesses, schools, hospitals, etc

- Businesses and household that rely on diesel-powered generators and biofuel has led to increase in air and noise pollution.

Define Problem

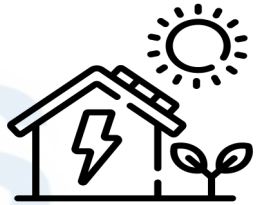
Define Problem - Problem Statement



"Ghanaians need affordable energy at the local level to solve power shortage because the lack of electricity is creating problem such as environmental pollution and low economic development."

"How might we create an online platform to promote the use of renewable energy alternative."

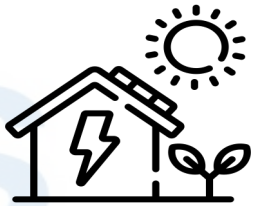
Background Research on our users



Ghanaians needs affordable renewable energy alternatives because:

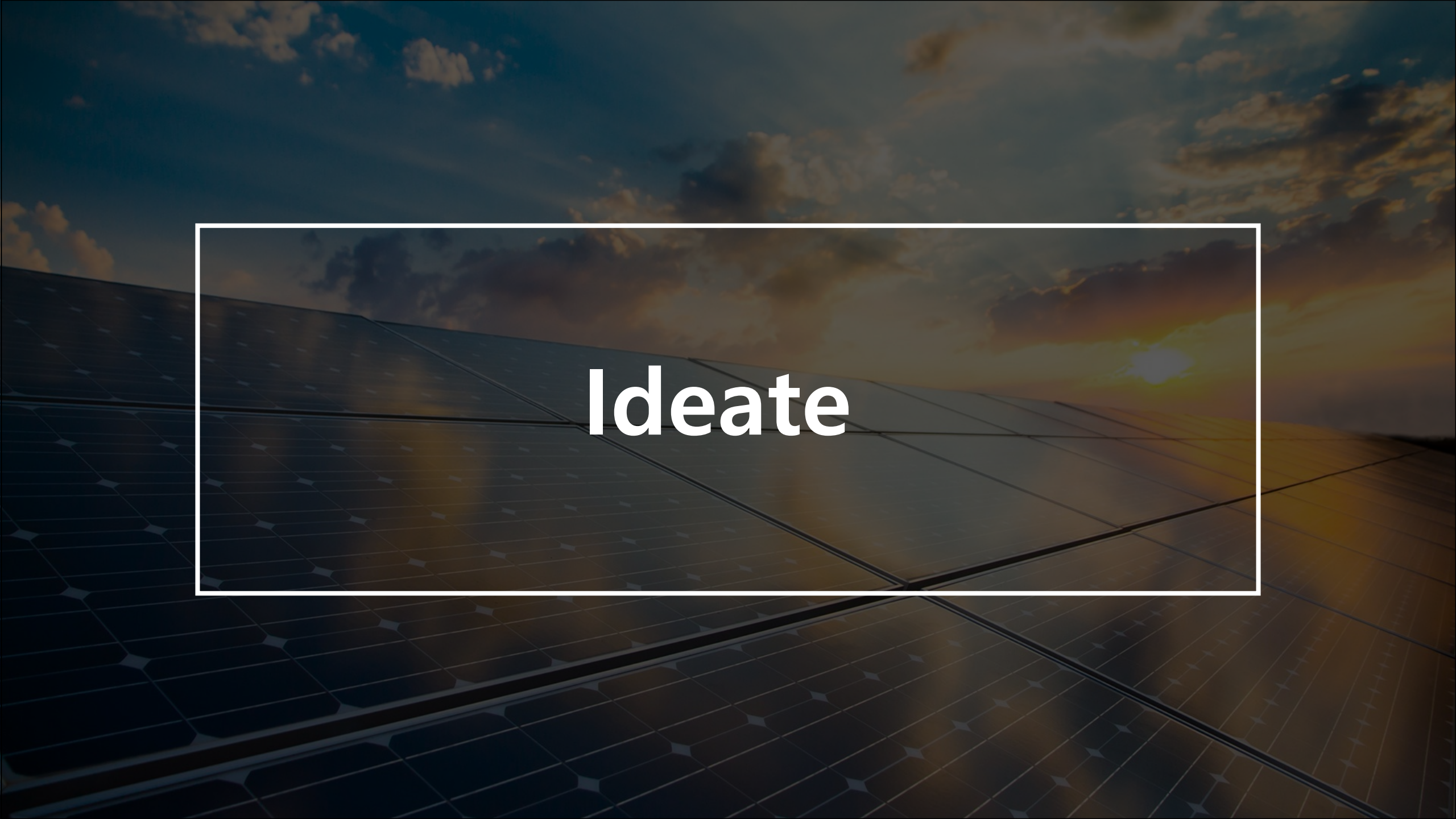
- ☑ **overdependence on hydro power has caused a strain on the energy sector**
  - → frequent power cuts and compelling households, businesses, schools and hospitals to use generators which causes air and noise pollution and is more expensive affecting daily life and businesses of users and the economy of Africa.
- ☑ **despite the negative effects frequent power cuts have on their daily life**
  - → majority are still oblivious to the better renewable energy alternatives they can switch to and save their businesses.

Background Research on our users



Students in Ghana needs to develop solar panel assembling skills because:

- ☑ The current grid capacity is unreliable, and it affects their learning environment
- ☑ High dropout of school children due to the unmotivated learn environment and poor education facility
- ☑ Lack of an alternative energy source led to overuse of biofuel such as wood which encouraged deforestation


Ideate

Frugal Hub Brainstorming

2 Brainstorm

Write down any ideas that come to mind that address your problem statement.
Remember, the key rules of brainstorming are:

Defer judgment | Go for volume | Build on the ideas of others | Stay on topic | Encourage wild ideas | Be visual

" Select a sticky note and click the pencil icon in the menu to sketch.

10 minutes

Renewable Energy Alternatives Campaign in Africa

Awareness and Education

- Provide information on successful examples of renewable energy uses in other African countries
- Promote seriousness of environment issues via mass media
- Public Education on environment and climate change
- Raise awareness about the impact of renewable energy on society

Promotion

- Make an online website to share people's ideas freely
- Creating an online platform to share ideas, information, stories, difficulties to create community spirit
- Promote the use of platform where teachers can share the latest information
- Share information on how to get access to renewable energy (solar panels)
- Creating informative and entertaining promotional videos
- Create a platform where Ghanaians can share their experiences of using renewable energy
- Share inspirational stories of diy projects done by individuals and groups

Partnership

- Connect users to the right channel to get access to renewable energy (solar panels)
- Collaborate with development partners
- collaboration with South Korean companies / NGOs working on renewable energy in Africa

Engaging with the Users

- Engaging students in practical training of the designing, installation and maintenance, it will encourage the sense of ownership.
- Empower teachers to reembark on renewable energy projects with students
- Empower users to switch to renewable energy alternatives
- Encourage to write environmental expenditure note
- Targeting the small scale solar consumers e.g schools, clinics.
- Target off-grid areas e.g rural areas

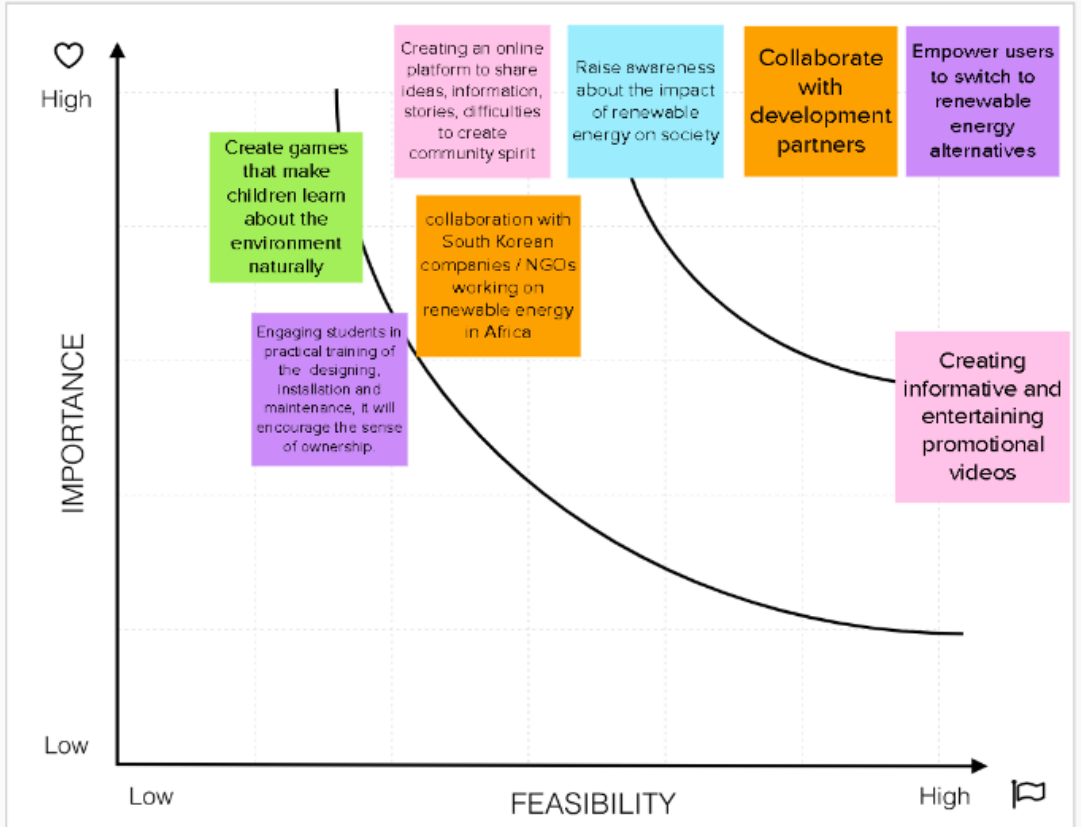
ETC

- Create games that make children learn about the environment naturally
- Aiming to improve the community wellbeing
- Setting the goals to get motivated

4 Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

20 minutes

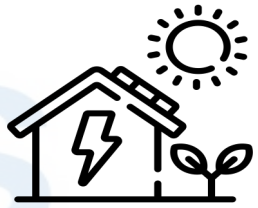


1. Brainstorming
2. Outline of SDGs Targets
3. Background Research

SUSTAINABLE DEVELOPMENT GOALS
1 NO POVERTY
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
4 QUALITY EDUCATION
5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND
16 PEACE, JUSTICE AND STRONG INSTITUTIONS
17 PARTNERSHIPS FOR THE GOALS
SUSTAINABLE DEVELOPMENT GOALS

Solution Statement

Solution Statement



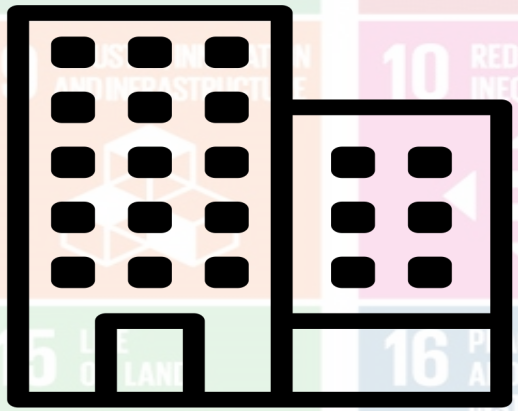
To launch an online capacity building campaign

- ☑ Raising awareness
- ☑ Promoting the use of renewable energy
- ☑ Training users while connecting them with the right organizations and partners

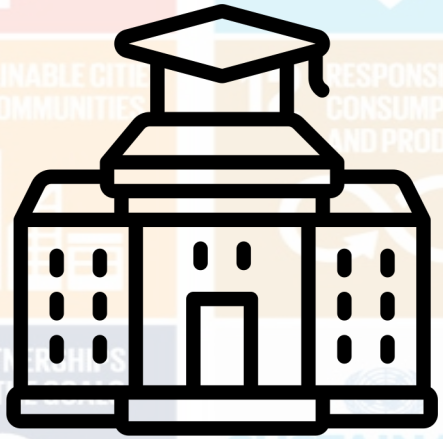
→ To get access to affordable renewable energy alternative

Targets

Community



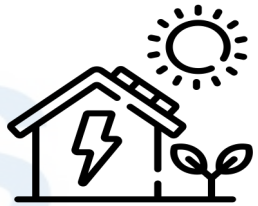
Small and Medium Sized Businesses



School

Solution Scenario

Solution Scenario

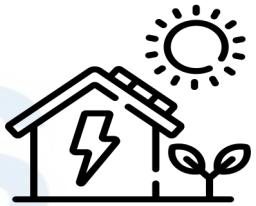


Awareness and Education

" Awareness and education will focus on the negative effect excessive use of diesel generators and biofuel. "

The environment and how switching to renewable energy alternatives will not only be beneficial to the environment but to businesses as well.

Solution Scenario

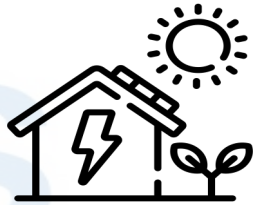


Awareness and Education

"Due to frequent power outages, individual and firms have switched to strategies using generators and biofuel.

About a quarter of firms use a generator and about 16 percent of electricity consumed comes from diesel generators."

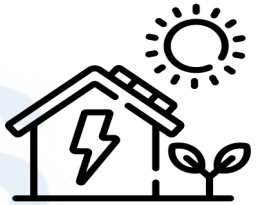
Solution Scenario



Promotion

- [x] Create an online platform to share information, ideas, challenges and opportunities between users and partners
- [x] Share inspirational stories of projects done by individuals and groups
- [x] Create informative and entertaining videos
- [x] Share information on how to access renewable energy alternatives (solar panels)

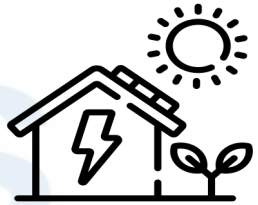
Solution Scenario



Partnership

- ☑ Connect users with the right channel to get access renewable energy alternative
- ☑ Collaborate with development partners
- ☑ Collaboration with international organizations/NGOS working in renewable energy in Africa

Solution Scenario

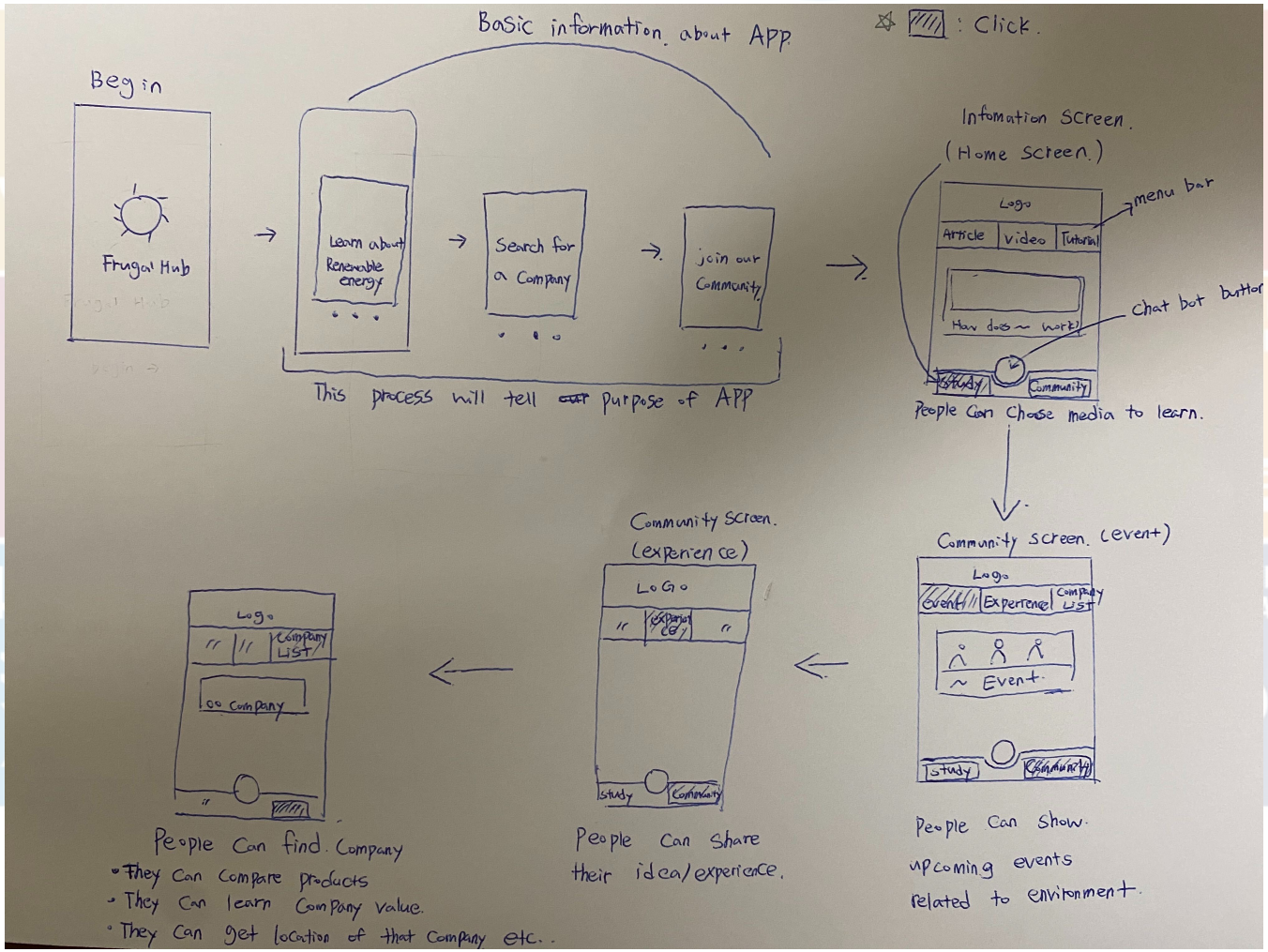


Engage with users

- ☑ Empower teachers to engage in renewable energy projects with students
- ☑ Engage students in practical training of the designing, installation and maintenance of solar panels to encourage their sense of ownership
- ☑ Empower users to switch to renewable energy alternatives

Prototype

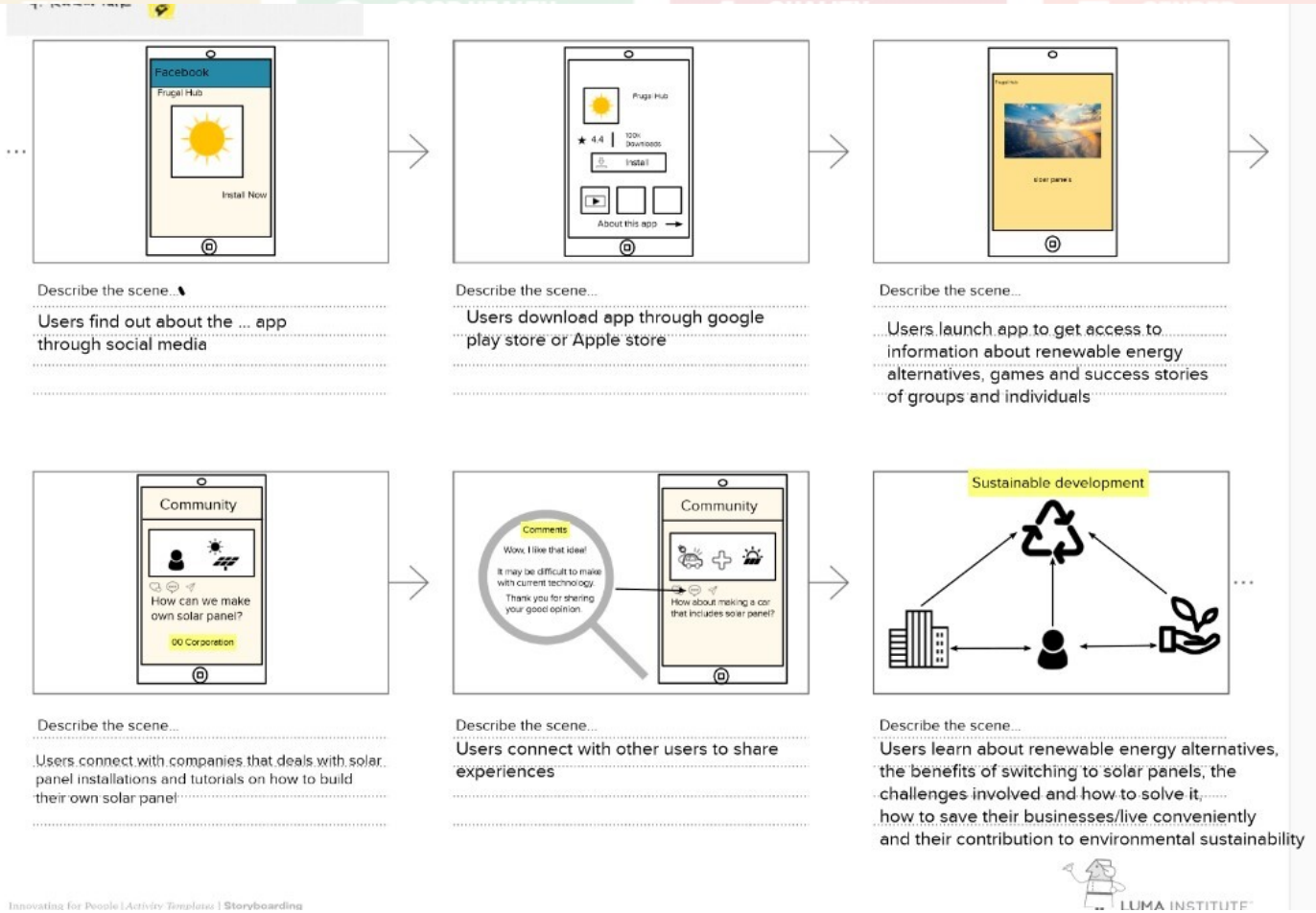
Sketches of Prototype



1. Sketches

2. Prototype

Sketches of Prototype

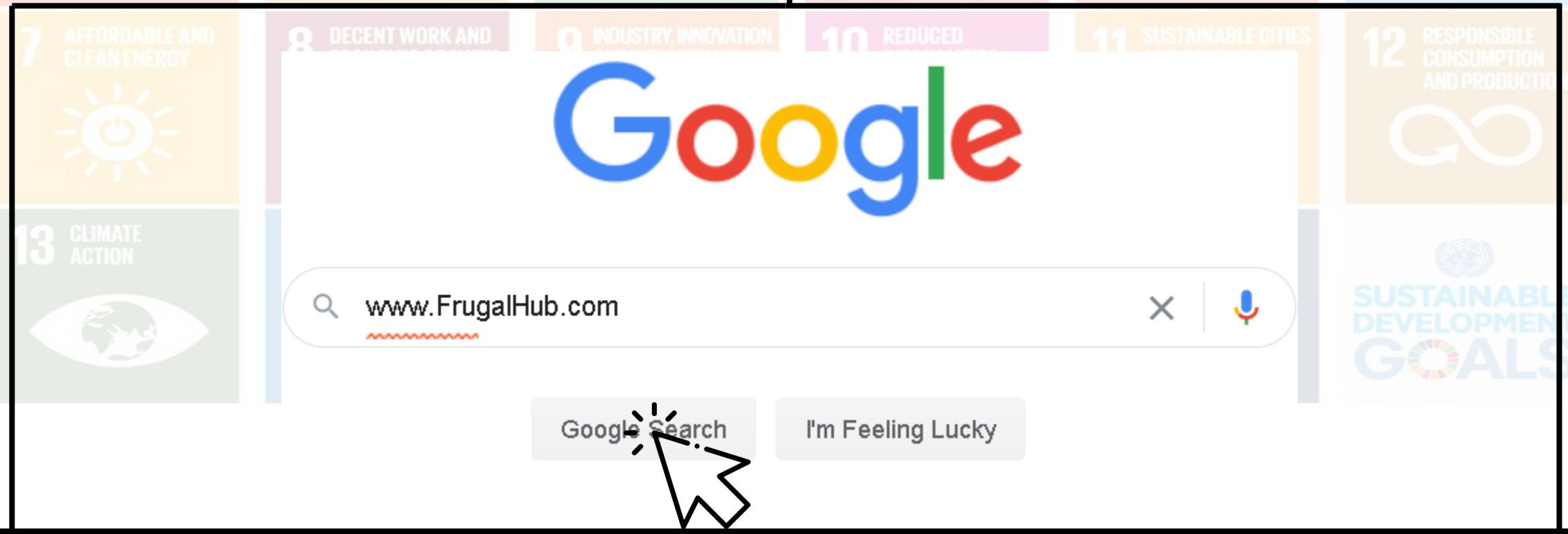


1. Sketches

2. Prototype

Online Platform

Online Website

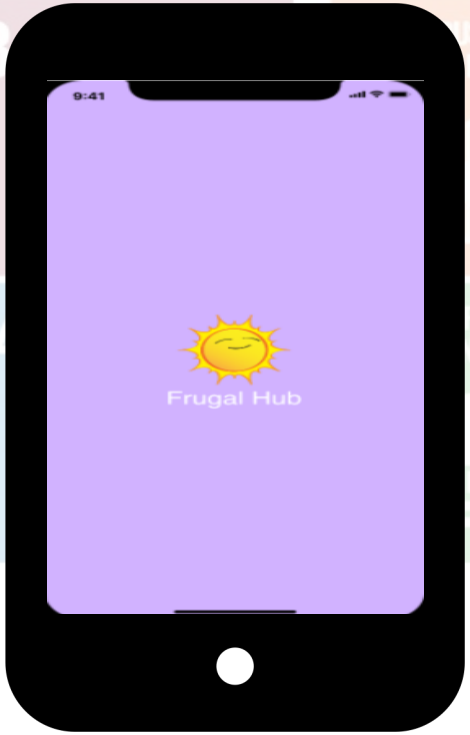


1. Sketches

2. Prototype

Online Platform

Application



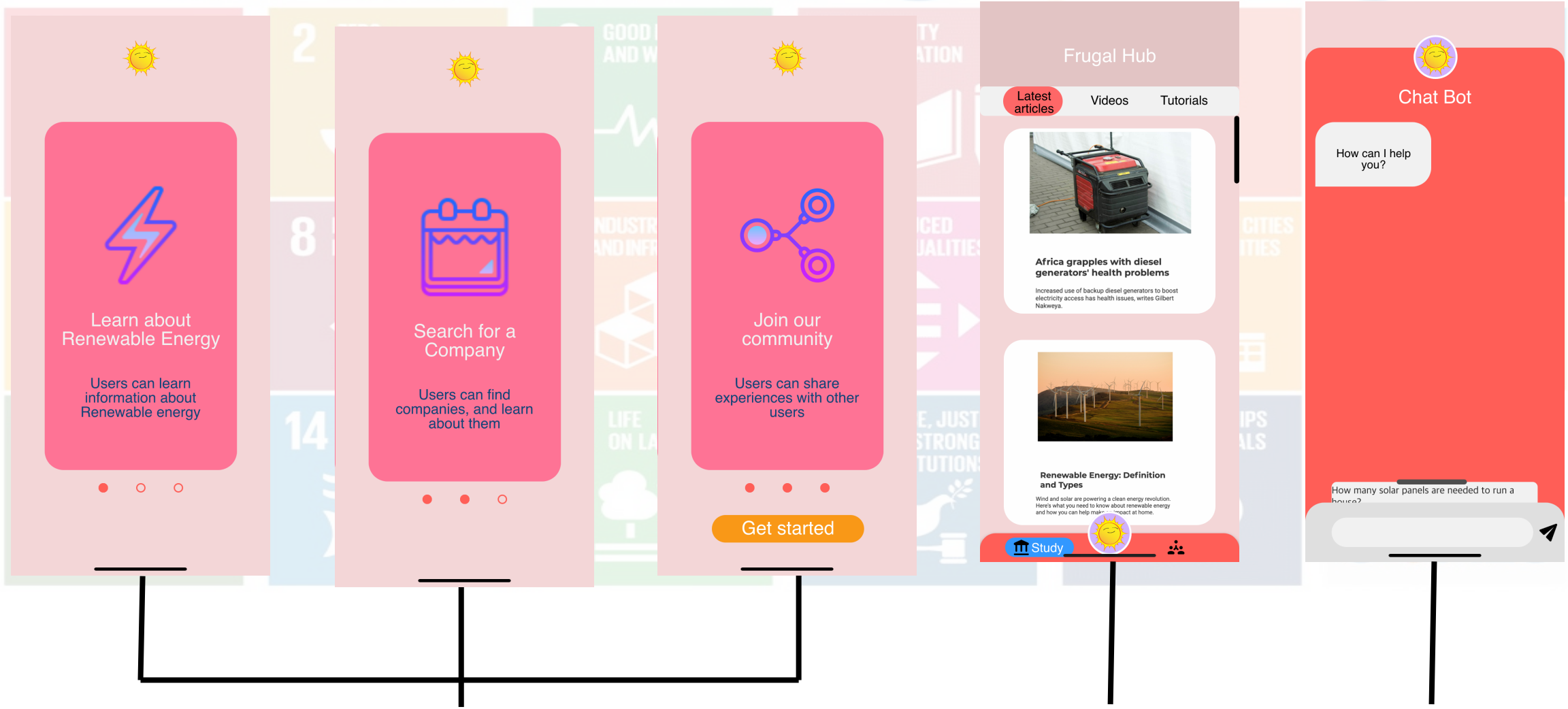
Working Prototype Link

https://frugalhub.invisionapp.com/prototype/ckdzyejtn00288e01487hp47x/play

1. Sketches

2. Prototype

Mobile App

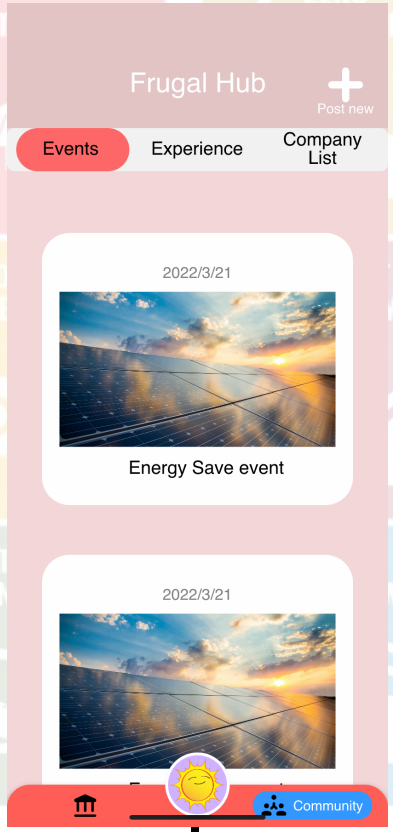


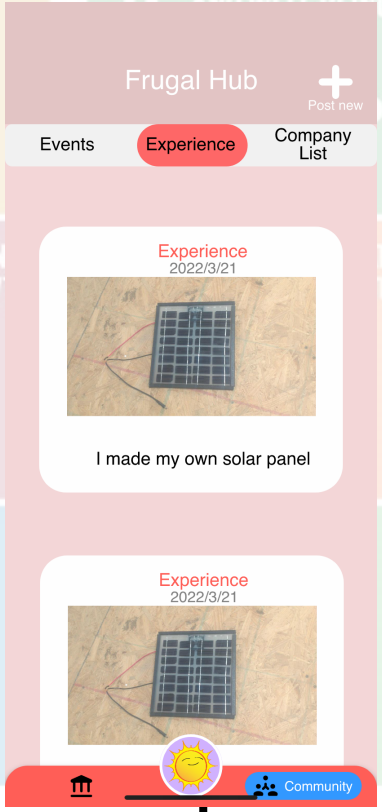
Basic Information Pages

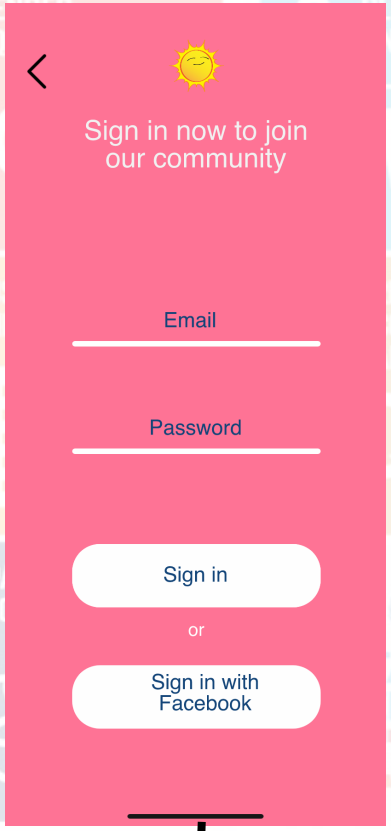
Main Home Page

Chatbot Page

Mobile App







Community Pages

Log-in Page

Online Platform

Online Website

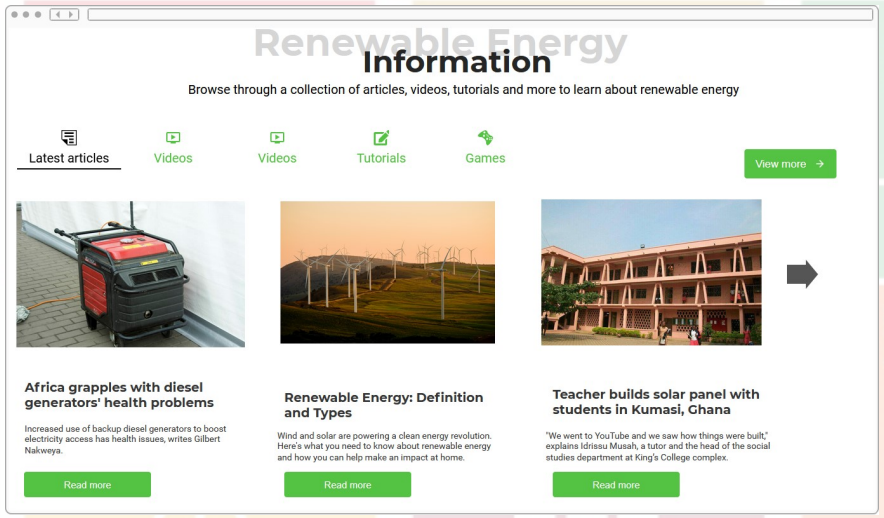
Working Prototype Link

https://frugalhub.invisionapp.com/prototype/ckdzyejtn00288e01487hp47x/play

1. Sketches

2. Prototype

Website


Renewable Energy
Information
Browse through a collection of articles, videos, tutorials and more to learn about renewable energy
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Africa grapples with diesel generators' health problems
Increased use of backup diesel generators to boost electricity access has health issues, writes Gilbert Nakweya.
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Renewable Energy: Definition and Types
Wind and solar are powering a clean energy revolution. Here's what you need to know about renewable energy and how you can help make an impact at home.
Read more
Teacher builds solar panel with students in Kumasi, Ghana
"We went to YouTube and we saw how things were built," explains Idrissu Musah, a tutor and the head of the social studies department at King's College complex.
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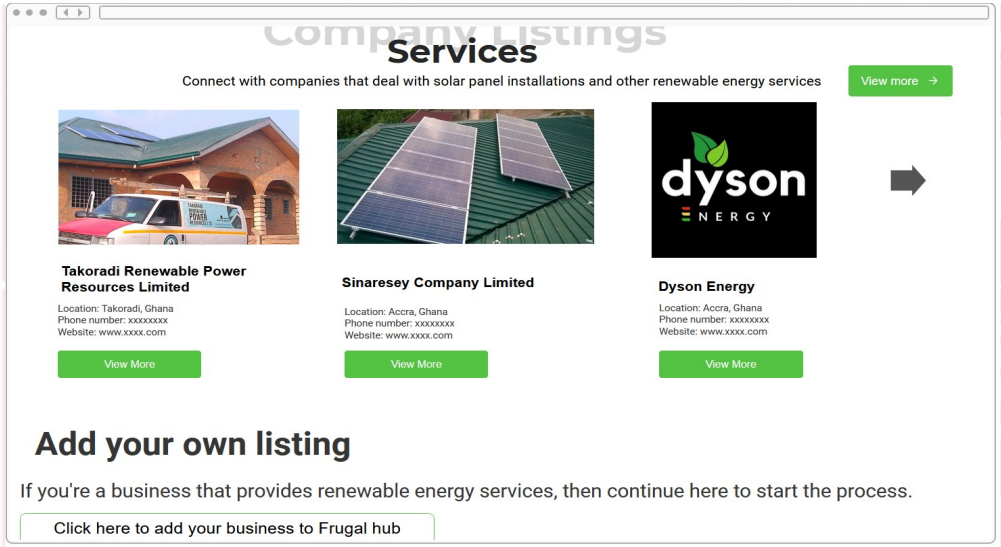
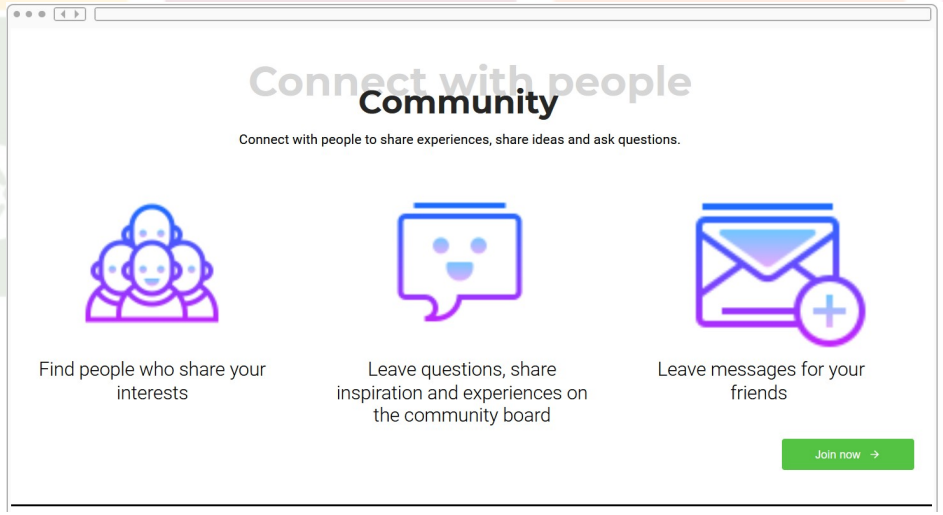

Company Listings
Services
Connect with companies that deal with solar panel installations and other renewable energy services
View more
Takoradi Renewable Power Resources Limited
Location: Takoradi, Ghana
Phone number: xxxxxxxx
Website: www.xxxx.com
View More
Sinaresey Company Limited
Location: Accra, Ghana
Phone number: xxxxxxxx
Website: www.xxxx.com
View More
dyson ENERGY
Dyson Energy
Location: Accra, Ghana
Phone number: xxxxxxxx
Website: www.xxxx.com
View More
Add your own listing
If you're a business that provides renewable energy services, then continue here to start the process.
Click here to add your business to Frugal hub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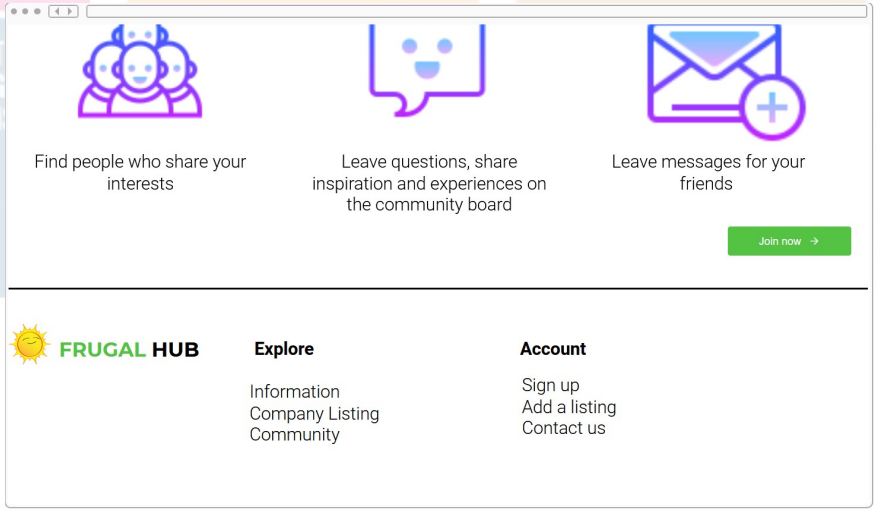
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Leave questions, share inspiration and experiences on the community board
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Sign up
Add a listing
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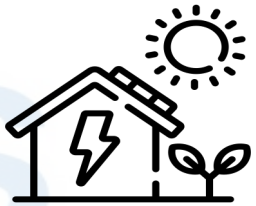
Testing

Testing



- Users know more about renewable energy alternatives
- Users have their questions answered and can conveniently access renewable energy services
- Users have more interest and feel empowered to switch to renewable alternatives

THANK YOU