What is the Design Sprint?

- It's a process born at Google, that allows teams to align on a specific problem, generate a mass of solutions, prototype, test and learn from real users in just a few days.

- Replace endless meetings and guesswork with real work and tangible results.

The structure

Full team

Full team

Guidelines

1. Full attention
2. No [other] devices
3. Turn off alerts
4. Everything is time-boxed
5. No discussion until its time

Expert talks & HMWs

This exercise is meant to get everyone in the team on the same page and understand the context of the problem we're trying to solve.

Listen as the experts in the room ar interviewed.

We will be writing HMW statements as a team and collect them in our worksheet.

Directions

1. The expert will be interviewed and everyone else is listening.
2. As they are talking, each participant will write HMW statements:
    a. take a sticky note
    b. write your question starting with HMW (How Might We...)
    c. use the examples in the individual worksheets as a referrence
    d. at the end, all HMWs are placed in the common worksheet

Listen as the expert is talking and capture your HMWs

HMW link the use operator to the grid operator ?

HMW increase the value of our tokens?

HMW transfer data to the blockchain?

HMW connect the smart meter to the blockchain?

Start writing one HMW statement on each sticky note as you listen to the expert. The more the better!

Ex. Expert is saying: We have a problem with the checkout flow.

You could say:

HMW improve our checkout flow?

HMW enable users to easily track their energy consumption and production in real time?

HMW encourage more users to become prosumers and invest in renewable energy sources?

HMW integrate various renewable energy sources (solar, wind, water, geothermal) seamlessly into the platform?

HMW integrate the P2P energy trading platform with existing smart grid and energy management systems?

HMW facilitate the integration of the platform with various IoT devices for better energy management?

HMW collaborate with local utilities and energy providers to enhance the platform's functionality?

HMW provide clear and compelling economic incentives for users to participate in P2P energy trading?

HMW ensure that the pricing of energy is fair and competitive for both prosumers and consumers?

HMW reduce transaction costs to make the platform more attractive to users?

HMW make the user interface intuitive to facilitate use by all users?

HMW simplify the process of buying and selling energy on the platform?

Start writing one HMW statement on each sticky note as you listen to the expert. The more the better!

Ex. Expert is saying: We have a problem with the checkout flow.

You could say:

HMW improve our checkout flow?

HMW Utilize AI to predict energy demand for each user.

HMW optimize trading schedules, ensuring that energy is sold and bought at the most efficient times.

HMW Implement AI algorithms to dynamically adjust energy prices based on real-time supply and demand.

HMW Integrate IoT devices that can automatically buy or sell energy based on usage patterns and energy availability, optimizing household energy consumption.

HMW Develop appliances that adjust their energy usage in response to grid conditions, such as running at lower power during peak times to save costs.

HMW understand the pain points and motivations of potential Sun & Earth users

HMW uncover how traditional energy trading methods (if any) are perceived and used

HMW design a user-friendly interface for the Sun & Earth platform that is intuitive and accessible for people

HMW develop a low-fidelity prototype of the Sun & Earth platform that allows users in Talah to simulate the process of buying and selling clean energy?

HMW identify potential partners or stakeholders who could champion the adoption and success of our platform?

Start writing one HMW statement on each sticky note as you listen to the expert. The more the better!

Ex. Expert is saying: We have a problem with the checkout flow.

You could say:

HMW improve our checkout flow?

Start writing one HMW statement on each sticky note as you listen to the expert. The more the better!

Ex. Expert is saying: We have a problem with the checkout flow.

You could say:

HMW improve our checkout flow?

What types of smart contracts will we implement to automate energy trading?

HMW collect, store, and analyze real-time energy data?

HMW ensure the scalability and efficiency of the blockchain to handle a large number of transactions?

HMW measure the platform's financial success?

HMW ensure that the platform is user-friendly and accessible to a diverse range of users?

HMW handle user feedback and continuously improve the platform?

HMW ensure the integrity and security of transactions on the platform?

How will the platform interact with the existing grid infrastructure and grid operators?

Read the HMWs and place your votes accordingly

Directions

1. Arrange the HMWs in main categories in the worksheet
2. Each participant has 2 voting dots, and the decider has 4
3. Take 3 minutes to read all HMWs and place your votes.
4. You must use ALL votes.

Categorising & Voting

After all the HMWs are collected, we will arrange them in common themes or patterns.

After that, we will vote on the most important and relevant HMWs for our challenge.


Topic 1
Topic 2
Topic 3
Topic 4
Topic 5
Topic 6

Write between 2-3 versions of a Long Term Goal

Directions

1. Everyone has to write between 2 and 3 versions of a Long Term Goal
2. Use the rectangular sticky notes and write one version/sticky note
3. You have to be super optimistic
4. We will vote on the most inspiring version

Long Term Goal

Now, we will be defining our Long Term Goal, which is a very optimistic view of the world, where our product/solution is a complete success.

Answer the following question:

What will the ideal world look like in 2 years from now?

In 2 years time, we will be a global leader in energy trading.

In 2 years time, we will achieve a significant reduction in CO2 emissions.

In 2 years time, we will achieve economic empowerment and social upliftment.

Start writing your ideas for the ideal 2 year goal. Try to be as optimistic as possible and envision the product/solution or company 2 years from now.

Start your idea with "In 2 years time..." as in the example below.

In 2 years time, we will be the leading POS solution in Europe

In 2 years' time, we will be the most trusted platform for decentralized energy trading.

In 2 years' time, we will set the standard for smart grid integration and energy management

In 2 years' time, we will dominate the market in peer-to-peer renewable energy exchanges.

Start writing your ideas for the ideal 2 year goal. Try to be as optimistic as possible and envision the product/solution or company 2 years from now.

Start your idea with "In 2 years time..." as in the example below.

In 2 years time, we will be the leading POS solution in Europe

In 2 years time, we will have successfully integrated advanced AI algorithms into our platform.

In 2 years time, our platform will have become the preferred choice for households and businesses seeking to monetize their excess renewable energy production through secure and efficient peer-to-peer trading.

In 2 years, our platform will partner with financial institutions to offer innovative financing, boosting investment in renewable energy infrastructure and speeding up clean energy adoption.

Start writing your ideas for the ideal 2 year goal. Try to be as optimistic as possible and envision the product/solution or company 2 years from now.

Start your idea with "In 2 years time..." as in the example below.

In 2 years time, we will be the leading POS solution in Europe

In 2 years time we will be managing to work with most of the existing renewable energy sources .

In 2 years time, our platform will support real-time energy trading across multiple regions.

In 2 years time, we will have a user base exceeding one million active

Start writing your ideas for the ideal 2 year goal. Try to be as optimistic as possible and envision the product/solution or company 2 years from now.

Start your idea with "In 2 years time..." as in the example below.

In 2 years time, we will be the leading POS solution in Europe

Write between 2-3 Sprint Questions

Directions

1. Everyone has to write between 2 and 3 Sprint Questions.
2. Use the rectangular sticky notes and write on question/sticky note
3. You have to be pessimistic
4. We will vote on the most relevant Sprint Questions

Sprint Questions

Now it's time to get very pessimistic. The Sprint Questions will help us evaluate if the Design Sprint is a success.

What could stop us from reaching our Long Term Goal?

Can we tackle technical challenges head-on, leveraging our team's expertise to create a groundbreaking energy trading platform?

Can we prioritize user security and privacy, building trust and confidence in our platform as the safest choice for energy trading?

Can we deliver a reliable and user-friendly platform that exceeds expectations and delights users?

Start writing the questions that you want to get an answer to after the sprint is done. These have to be super pessimistic.

Start your question with "Can we..." as in the example below.

Can we replace the need of a washing machine at home?

can we streamline internal processes and optimize resource allocation to mitigate operational risks and ensure smooth execution?

can we stand out in a crowded market and capture users' attention amidst fierce competition?

can we reassure users and regulators about our commitment to data security and privacy?

Start writing the questions that you want to get an answer to after the sprint is done. These have to be super pessimistic.

Start your question with "Can we..." as in the example below.

Can we replace the need of a washing machine at home?

Can we effectively integrate multiple renewable energy sources (solar, wind, water, geothermal) into our trading platform to provide diverse energy options for users?

Can we scale our platform to accommodate a growing number of users and transactions without compromising performance or user experience?

Can we educate and onboard users effectively on how to utilize our platform for energy trading, ensuring widespread adoption and participation in P2P transactions?

Start writing the questions that you want to get an answer to after the sprint is done. These have to be super pessimistic.

Start your question with "Can we..." as in the example below.

Can we replace the need of a washing machine at home?

Can we implement a rewards system for users who trade renewable energy.

Can we develop mobile apps to enhance user engagement?

Can we expand our platform to support multiple renewable energy sources

Start writing the questions that you want to get an answer to after the sprint is done. These have to be super pessimistic.

Start your question with "Can we..." as in the example below.

Can we replace the need of a washing machine at home?

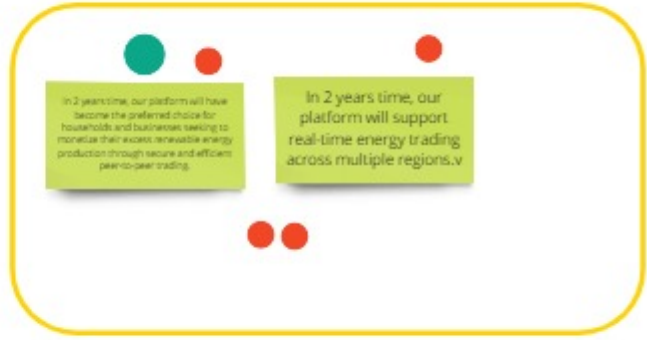
Malak

Noura

Nermine

Siwar

Ayet

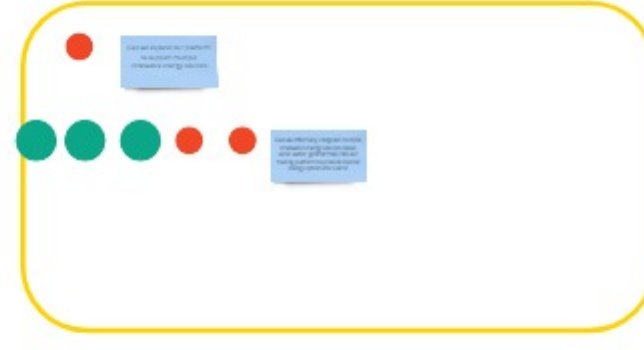


Melek

Sinan

Nermine

Ayet



Let's draw the map & place our HMWs + focus area

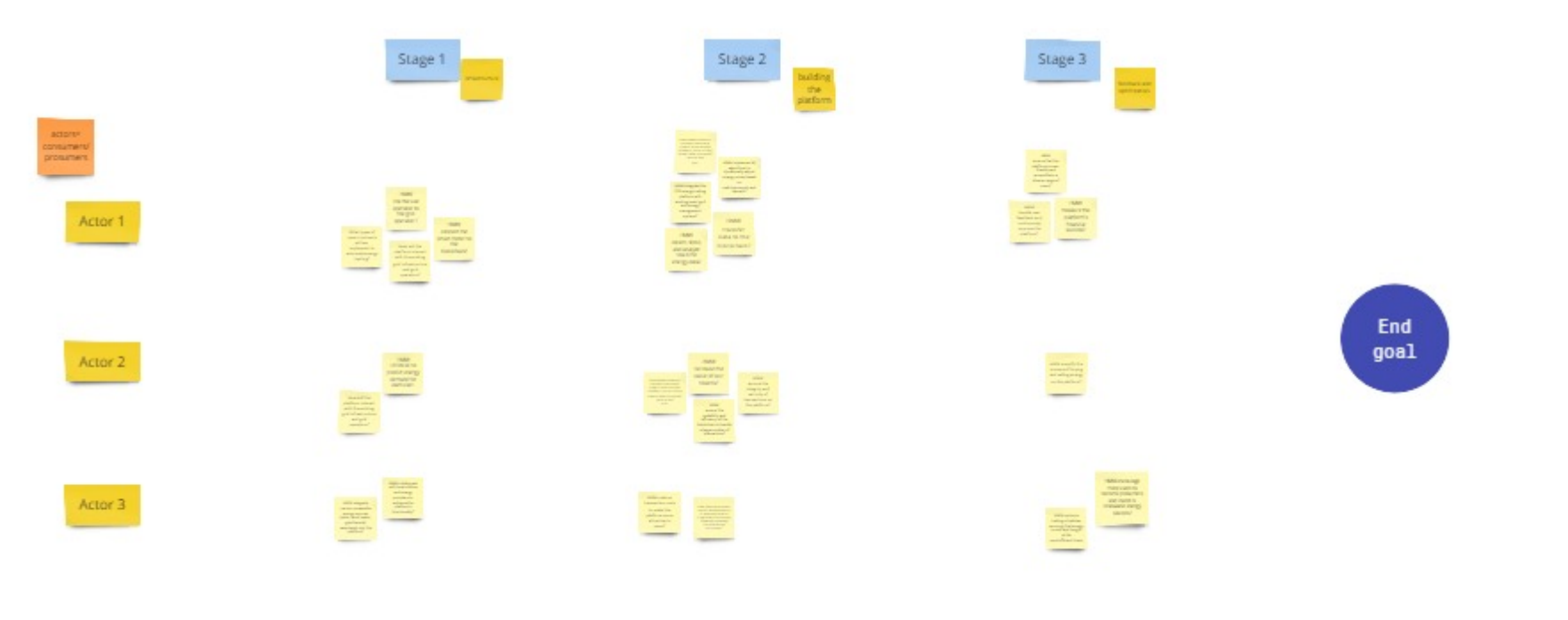
Directions

1. Write the actors on the left
2. Write the ideal end state on the right
3. Fill in all the steps/stages in between
4. Add HMWs to the Map
5. Circle focus area

Drawing the Map

The Map presents a user’s flow through the product/service.

This is important as it helps us focus on one key moment of our user's journey.


Stage 1
Stage 2
building the platform
Stage 3
actors= consumers/ prosumers
Actor 1
Actor 2
Actor 3
End goal

Search for relevant examples offline or online, and add them to our worksheet below. After everyone is done we will each present our examples.

Directions

1. Search for relevant examples of apps or products that can inspire us and write the big idea, as the example on the right.
2. We strongly recommend adding screenshots or recordings to better showcase the example.

Slack

Big idea: teach users how to use the interface by actually chatting with a chatbot

Lightning Demos

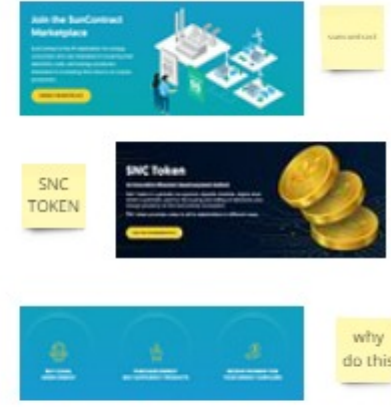
Now that we know where we'll focus our efforts on, it's time to get inspired by what's out in the world.

We will be searching the internet/app store for relevant examples of how others have approached the same issue, or that can be used as inspiration for the team.


Lightency
Dapp


WEB POWER


BABLE
BABLE (Europe)
Digital Forum


Join the SunContract Marketplace
SNC TOKEN
SNC Token
why do this

Voting on sketches

Welcome to the second Sprint day! Pfew, the first day was quite intense right? Well, today is way more relaxed.

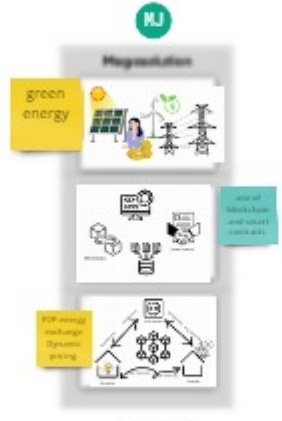
We're going to be voting on the concepts we created. Anonymously.

Directions

1. Let's re-read the Sprint Questions
2. In silence, each person looks at the sketches, and places voted on the sketch/sections/parts of the sketch that they like. Use as many dots as you want.
3. If you have questions, write them on a sticky note and add it under each sketch.

Look at all the sketches and start voting


AA
MJ
Mageolution


MJ
Mageolution
green energy


Si
Mageolution


Mageolution

Return to the common workspace and place your vote.

Directions

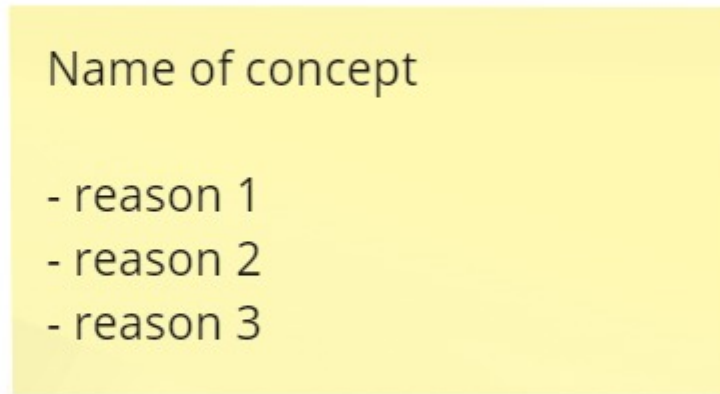
1. Return to our common worksheet and take the dot with your initials on it.
2. All at once, we will place our vote on the concept that we feel confident in.

Synchronised voting

It's time to vote on our favourite concepts.

Listen to the presentations and write down your favourite concept and the reasons for choosing it.

1. Everyone (except the decider) looks at the concepts once again.
2. Decide on a concept or feature you think we should prototype and test (in your head).
3. Write the concept name on a sticky note + the reasons why you've chosen it.



Presenting solutions

Let's go through all the solutions and better understand them

Participant 1

Name of concept: coding

- reason 1:It's the most important part.
- reason 2: our team members excel in coding.
- reason 3:the code testing determines the feasibility of the platform.
- reason 4:effective coding ensures robust security measures.

Participant 2

Secure Transactions with Blockchain
- reason 1:Reduces intermediary costs.
- reason 2:Prevents fraud with an unchangeable ledger.
- reason 3:Gives users control over their energy trades.
- reason 4:Automates and enforces trade terms.

Elmer

Real-time Energy Trading with Dynamic Pricing
- reason 1:Allows prices to fluctuate based on real-time supply and demand,
- reason 2:Consumer Engagement
- reason 3: Efficiency and Sustainability
- reason 4: ensuring transparency and security without the need for intermediaries

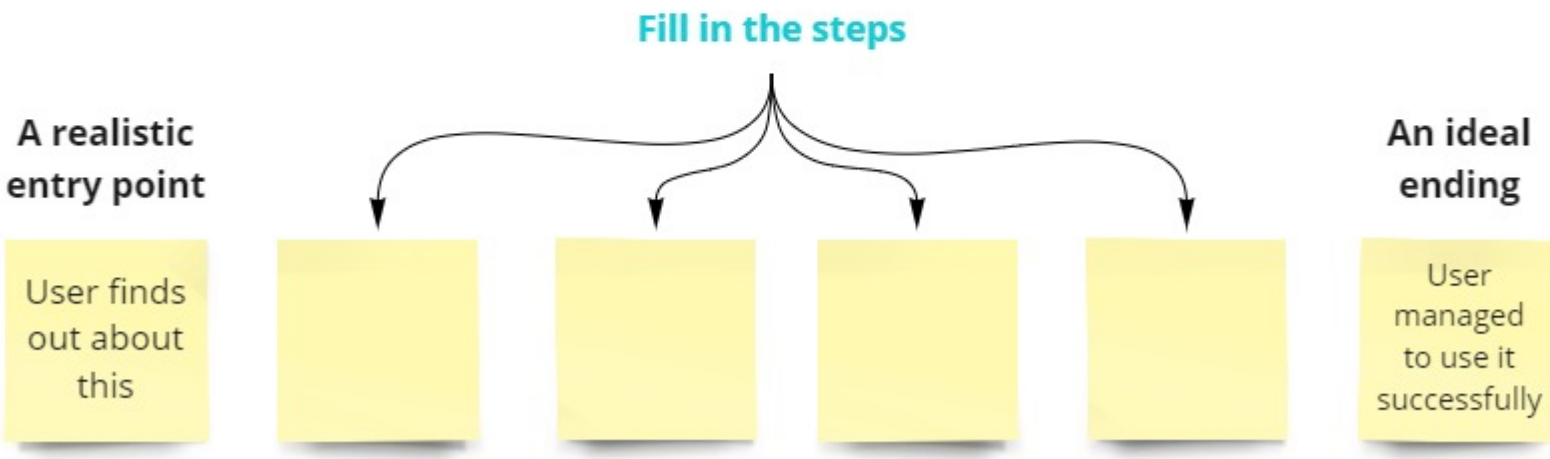
Participant 4

Peer-to-Peer Energy Trading Dashboard

- reason 1: Provides a user-friendly interface for prosumers and consumers
- reason 2: Enhanced Transparency
- reason 3: Data-Driven Optimization
- reason 4: enhancing the overall user experience and engagement

Write your version of a User Test Flow

1. Everyone will take 20 minutes to write their version of the user test flow.
2. Start with a realistic entry point
3. Define an ideal ending
4. Fill in the steps in between.



User Test Flow

Now that we've decided on a concept, it's time to start defining how our user test flow looks like.

We'll have to write a simple story in 6 steps.

X, has received an email invitation to test the Peer-to-Peer Energy Trading Dashboard.

X opens the invitation email on her computer or mobile device.

clicks the provided link in the email, which redirects her to the platform's login page.

Entering Credentials

Verification

X successfully logs into the platform and accesses the dashboard

X has listed her excess energy for sale on the P2P energy trading platform and is monitoring market activity

Notification of a New Bid

Reviewing Bid Details and Accepting the Bid

Smart Contract Execution Energy Transfer and Validation:

Receiving Payment Transaction Confirmation

X successfully accepts a bid for her listed energy, triggering the smart contract to handle the transaction.

Landing Page: Alex visits the platform and gets it.

Register: Quick sign-up with email.

Location & Choice: Share location, choose clean energy source (solar, wind, etc.).

See Producers: Platform shows nearby options with prices.

Buy & Pay: Choose a producer and plan, secure payment.

Confirmation: Get details and manage energy use on the platform.

The user enters their credentials or signs up for a new account if they are a first-time user. Upon successful authentication, they are redirected to the dashboard.

The user navigates to the "Energy Trading" section by selecting the appropriate option from the main menu

The user browses through the listings, filtering by criteria such as price per kWh, amount of energy, and seller ratings.

The user clicks on the listing to view more details, including the seller's profile, energy source, and terms of the transaction. If satisfied, the user clicks on "Buy" to initiate the purchase.

he user reviews the details such as the amount of energy, total cost, and payment method. The user then confirms the transaction by clicking on the "Confirm Purchase" button. The transaction details are recorded on the blockchain.

The user receives a notification confirming the successful completion of the transaction. The user's energy balance is updated to reflect the newly purchased energy. The user can view the transaction details in their transaction history.

Participant 1

Participant 2

Participant 3

Decider

Storyboarding

This is it. We're almost done!

We're closing in on the storyboard which is what we'll be handing over to the prototyping team.

Directions

1. We'll draw 8 boxes which will represent our storyboard (we can add more if necessary)
2. We'll start filling in the boxes with screens/elements we already have from our sketches
3. Start filling in the gaps

Let's get to storyboarding!


1


2
CO2
reduction


3


4


5


6
$


7


8

Day 1

Team call - 1h 30m

15 min break

Team call - 1h 15m

Offline homework - 2h

Day 2

Team call - 1h 30m

15 min break

Team call - 1h

15 min break

Team call - 1h

Organise your ideas into a clear story. Follow all the 3 exercises, and create a final sketch. After you are done, send the concept to the facilitator

Concept Sketching

Now that we are inspired, it's time to create a multitude of potential solutions to our challenge.

It's not about creating pretty things.
It's about coming up with ideas.

Exercise 1: Notes & Ideas

For this exercise, it's all about copying what we already have. Then, start generating some really rough ideas

1. Take a sheet of A4 paper
2. Write the 2 Year Goal at the top
3. Write the voted Sprint Question(s)
4. Write your favourite Lightning Demo examples
5. Start writing a few thoughts

Exercise 2: Crazy 8's

Let's get really creative now!

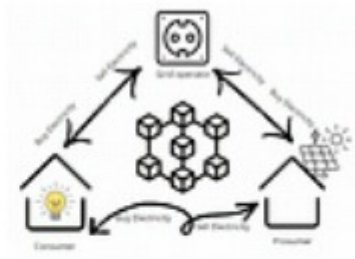
1. Take a sheet of A4 paper, and fold it 3 times, until you get something like below
2. Look at the doodles you made before
3. In each of the 8 boxes that are created, start drawing a more detailed version of your idea(s).
4. You have 1 min for each box

Exercise 3: Concept Sketch

Time to create a complete concept! This is what matters.

1. Take a few pieces of A4 paper and create a board.
2. Start sketching your concept within the boundaries of the surface created.
3. It can be multiple screens, a full experience, or a simple page. It's up to you
4. Give it a catchy title
5. We recommend adding notes on the side, with explanations

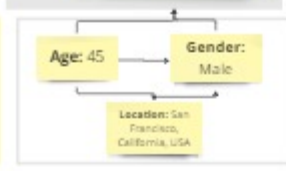
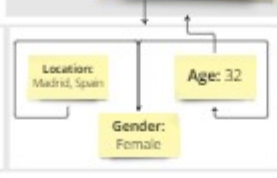
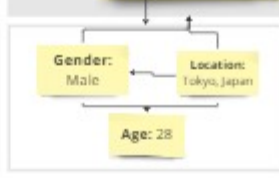
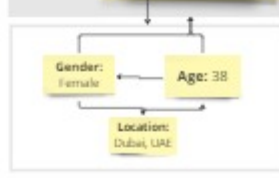
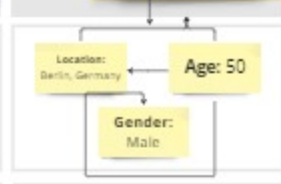
Self-explanatory
Anonymous
Ugly is okay
Words matter
Catchy title




Add Energy Details
Buy Energy


ETH


You earned
points

	User 1	User 2	User 3	User 4	User 5
User demographics & psychographics					
Question 1					
Question 2					
Question 3					
Feature					
Component					
Flow					
Screen					
Feature					
Component					
Flow					
Screen					
Feature					
What did you like about this experience? Why?	"I really appreciated the transparency and efficiency of the transactions on this platform. Being able to directly trade clean energy with others in my community without intermediaries felt empowering. It aligns perfectly with my goal of reducing my carbon footprint."	"What I liked most was the opportunity to participate in clean energy initiatives despite not having solar panels myself. It made me feel like I was contributing to a greener future for my city. The simplicity of the platform also made it easy for me to navigate and understand."	"As a tech enthusiast, I found the integration of blockchain technology fascinating. The platform's security features and the ability to track energy transactions in real-time gave me confidence in its reliability. It's a great example of leveraging technology for sustainable practices."	"The flexibility to manage my energy surplus and share it with others in my community was what I liked most. It allowed me to optimize my energy usage and build connections with like-minded individuals. The platform's interface was intuitive, making the whole process seamless."	"What stood out to me was the community aspect of the platform. Being able to engage with others who are passionate about clean energy and sustainability was enriching. I appreciated how the platform encouraged collaboration and shared responsibility for energy consumption."
What did you not like about this experience? Why?	"One aspect I found challenging was the initial setup process. While I appreciate the platform's focus on security, the verification steps felt a bit cumbersome. Simplifying this without compromising security would make the onboarding smoother."	"I encountered occasional delays in the transaction processing times, especially during peak demand periods. As someone who relies on timely energy trading, these delays were inconvenient. Improving the platform's scalability to handle higher transaction volumes could address this."	"I had some concerns about the volatility in energy pricing at times. While I understand it's influenced by market dynamics, having more predictable pricing models or tools to hedge against price fluctuations would provide more stability for users like myself."	"The platform's customer support response times could be improved. There were instances where I needed assistance with transactions or technical issues, and the support turnaround was slower than expected. Enhancing support availability and responsiveness would enhance user experience."	"I found the user interface, while generally user-friendly, lacked customization options. Being able to personalize my dashboard to prioritize certain energy metrics or notifications would enhance usability, especially for users with specific preferences or needs."
If you had a magic wand, what would you change? Why?	"I'd simplify integration of various renewable energy sources to broaden participation."	"Enhance platform accessibility for users with diverse technical backgrounds."	"Ensure stable and predictable energy pricing to improve planning."	"Boost platform scalability for seamless handling of increased user demand."	"Improve data analytics to provide deeper insights and optimize trading strategies."
How do you currently solve/tackle this problem/challenge/process?	"Monitor solar production, stay updated on platform changes, and seek community advice."	"Use platform guides, participate in community forums, and contact support for help."	"Utilize real-time analytics, provide feedback for improvements, and monitor market trends."	"Engage with community, advocate for platform improvements, and communicate with users."	"Analyze data with platform tools, collaborate with users, and optimize trading strategies."
What other products/services have you used to solve this problem? What was your favourite thing about that service/product?	"Traditional utility services. Liked: Simplicity in monitoring energy usage and costs."	"Community energy cooperatives. Liked: Transparency in energy sourcing."	"Blockchain-based energy platforms. Liked: Real-time data transparency."	"Smart home energy management systems. Liked: Ability to optimize energy use."	"Energy trading platforms. Liked: Detailed energy consumption insights."
How important is for you to solve this challenge on a scale from 1 to 10?	"9"	"8"	"10"	"7"	"8"
How often do you encounter this challenge/go through this process?	"Regularly, especially during seasonal changes in energy production."	"Occasionally, when managing energy usage or participating in trading activities."	"Frequently, as I actively monitor and adjust energy trading strategies."	"Intermittently, depending on community energy needs and platform usage."	"Regularly, as I analyze energy consumption patterns and optimize trading."