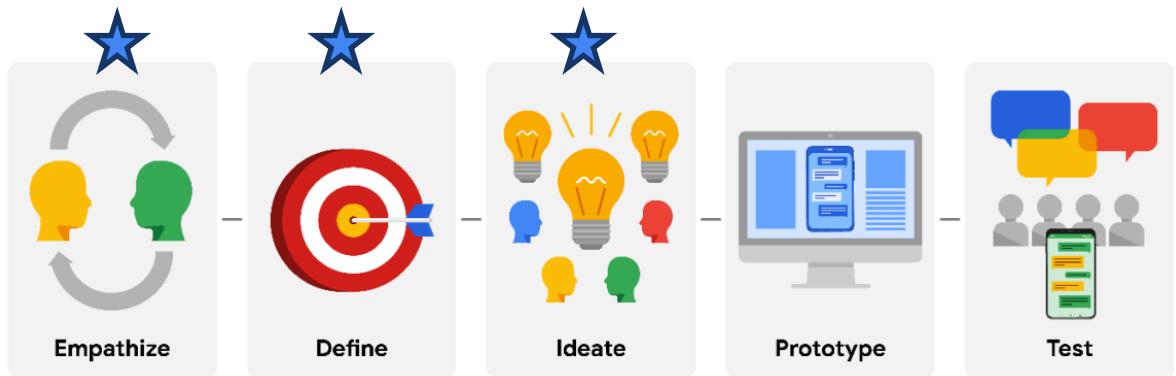


# START UX DESIGN PROCESS: EMPATHIZE, DEFINE, IDEATE

---



# CONTENTS



Empathize with users to understand their needs and pain points



Develop problem statements to define user needs



Generate ideas for possible solutions to user problems

# DESIGN THINKING



What is Design Thinking?



Why is Design Thinking so important?

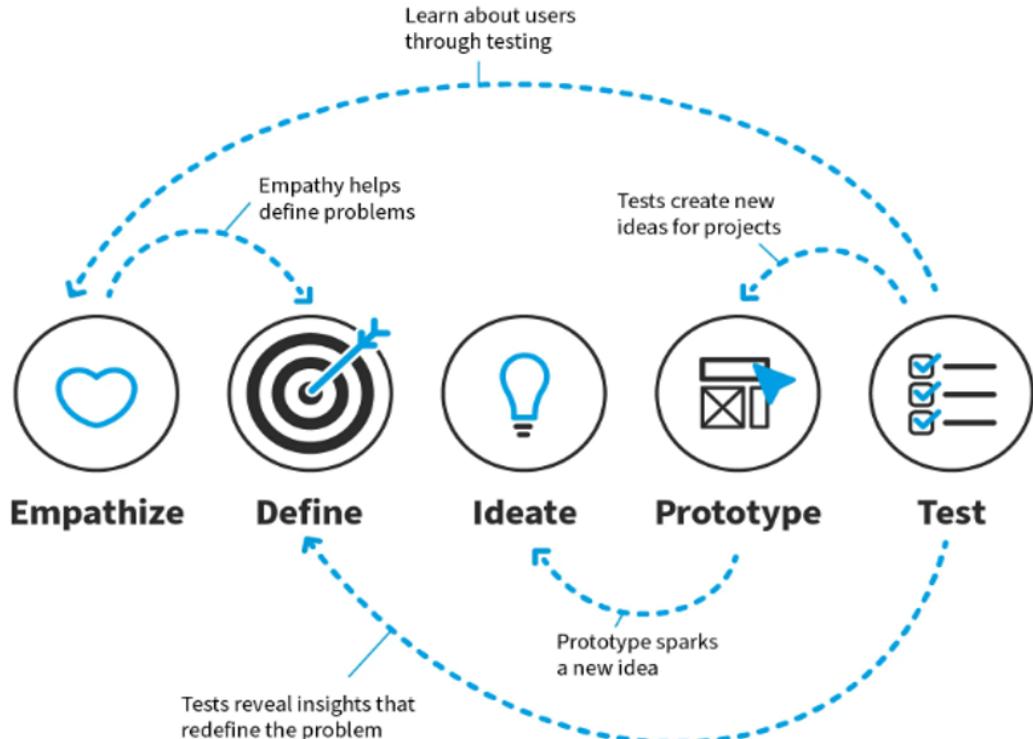


How to use it in UX design?

# DESIGN THINKING FRAMEWORK

## **Non-linear, iterative process**

- Understand users
- Challenge assumptions
- Redefine problems
- Create innovative solutions
- Prototype
- Test

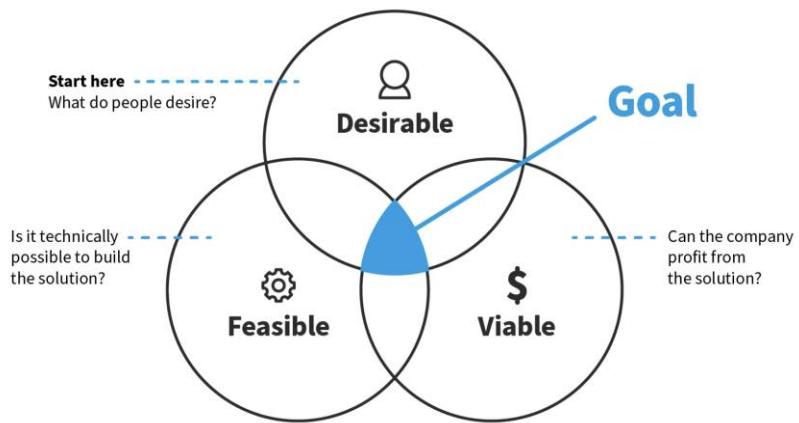


# WHY DESIGN THINKING SO IMPORTANT

Design thinking is a **human-centered approach** to innovation

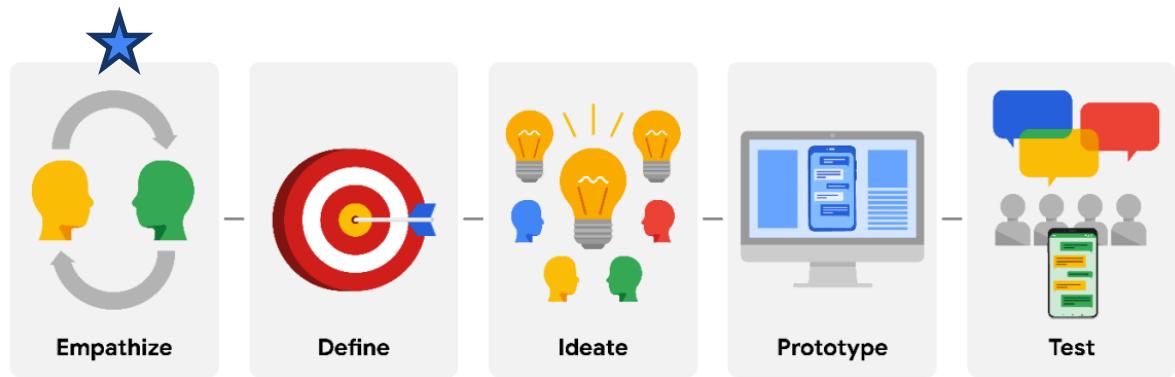
The End Goal of Design Thinking:

- Be **Desirable**
- **Feasible**
- and **Viable**



# EMPATHIZE

---





# EMPATHY

**Empathy** is the ability to understand someone else's feelings or thoughts in a situation

**Sympathy** is the experience of showing concern or compassion without feeling the emotions themselves



Empathy



Sympathy



# EMPATHY

UX design is **not** about solving problems we **assume** users want to solve. It's about solving problems that users **actually** want solved



# HOW TO EMPATHIZE WITH USERS



**Ask lots of questions**



**Become more observant**



**Be an active listener**



# HOW TO EMPATHIZE WITH USERS



Request input



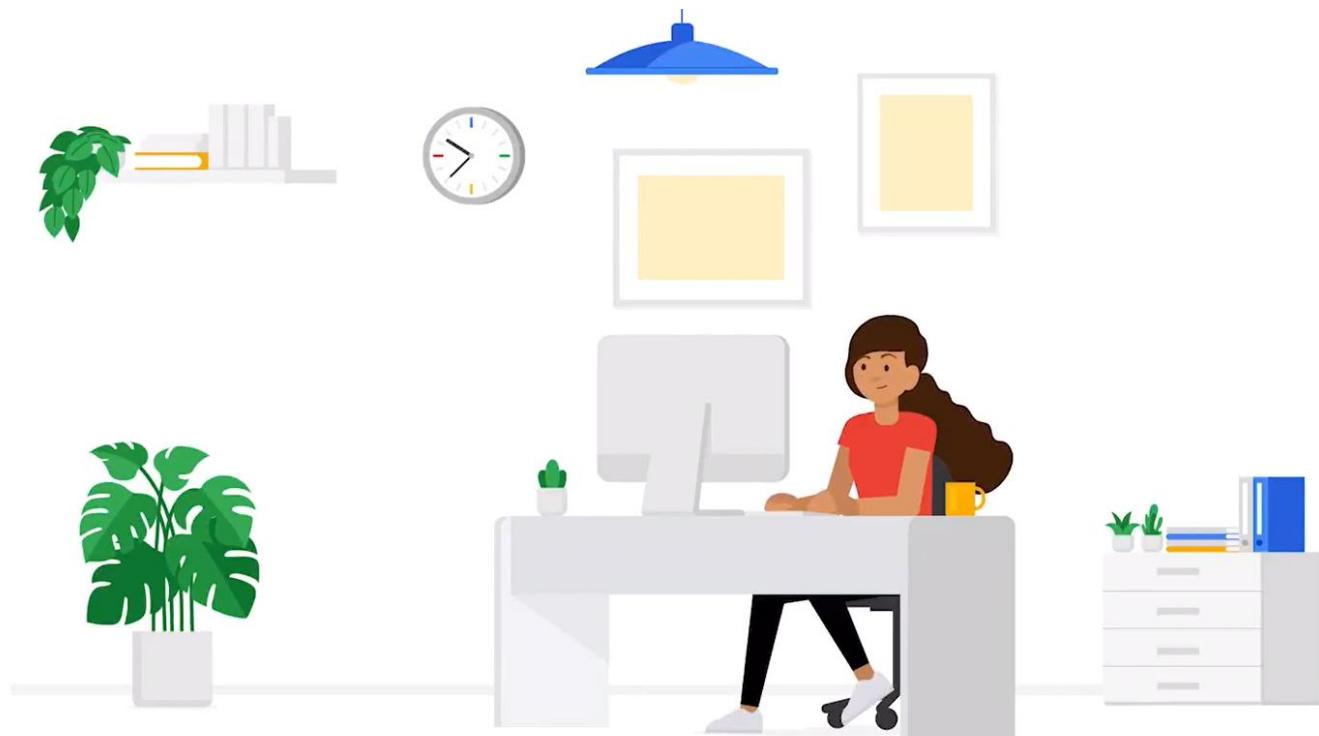
Have an open mind



Keep current on UX research



# RECRUITING RESEARCH PARTICIPANTS





# SCREENER SURVEY

A detail list of questions that helps researchers determine if potential participants meet the requirements of the research study

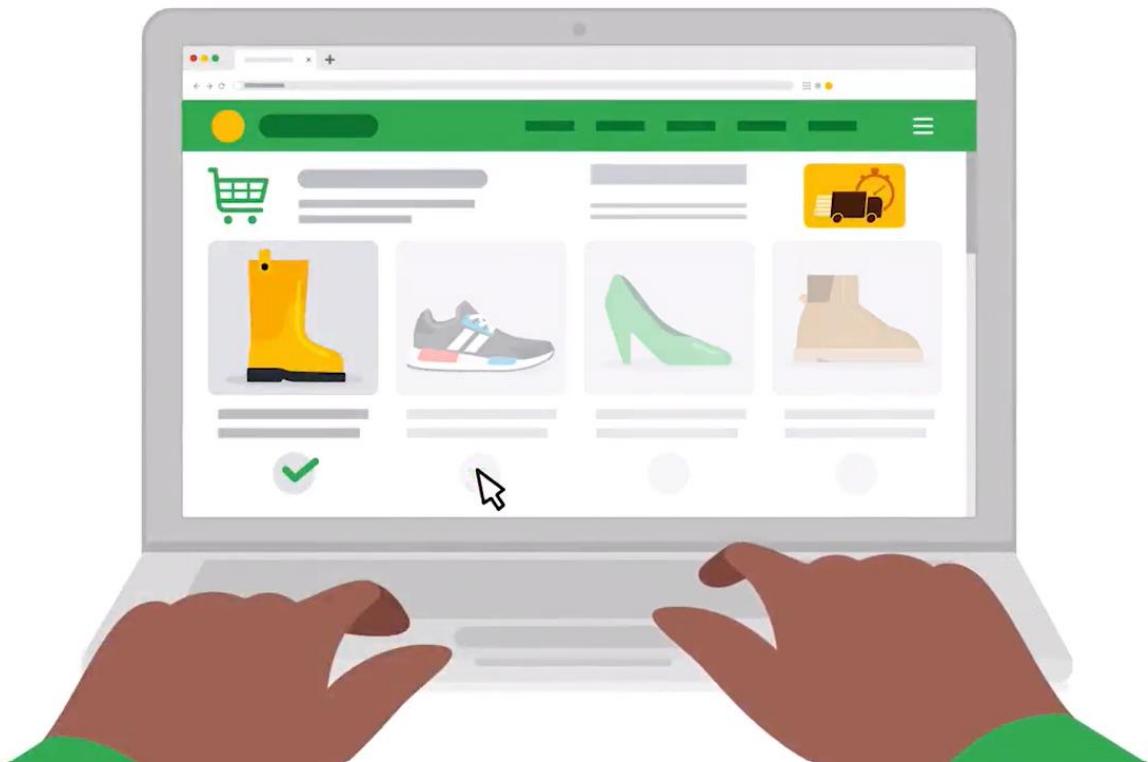


# DETERMINE RESEARCH GOALS

Need to determine clear goals for the interview:

- What do you want to learn from the interviews?
- Are there certain user problems or pain points that you need to empathize with?
- Are there any characteristics of users you want to interview? Why?
- How much information should we have to ensure we get a comprehensive and balanced set of data?







# REPRESENTATIVE SAMPLE

A subset of the target population that seeks to accurately reflect the characteristics of the larger group

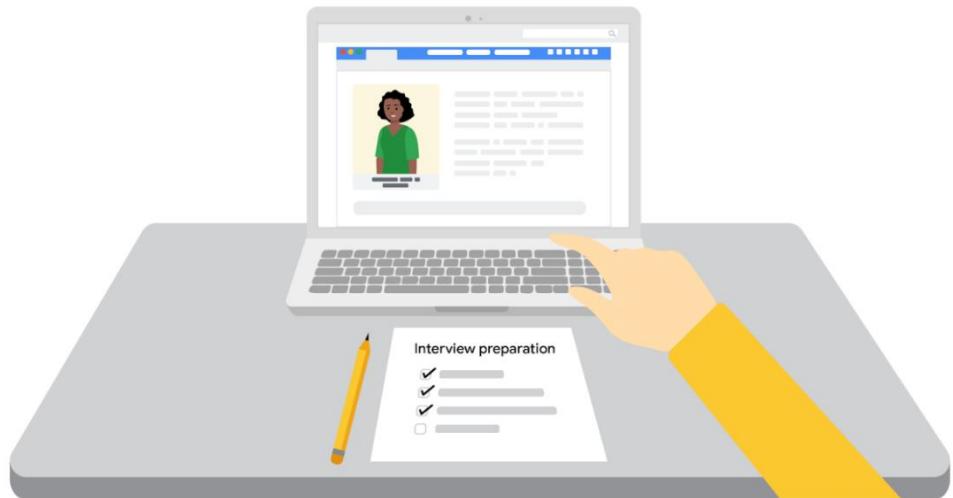


# POTENTIAL INTERVIEW PARTICIPANTS

- Family members
- Friends
- Classmates
- Social networks
- Online groups based on personal interest
- Professional networking websites
- Third-party recruiting agency
- Websites specifically to connect with research participants



# INTERVIEWING ACTIVITIES



---

**Prepare for the interview**

---



# PREPARE FOR THE INTERVIEW

- Script interview questions (consistent for all participants)
  - Ask open-ended questions
  - Keep questions short and simple
  - Ask follow-up questions
- Collect supplies
- Research the users
- Practice



# INTERVIEWING ACTIVITIES



---

**Meet the participant**

---



# MEET THE PARTICIPANT

First impressions matter!

- Build a rapport
- Thank users for coming
- Gather basic details



# INTERVIEWING ACTIVITIES



---

**Conduct the interview**

---



## CONDUCT THE INTERVIEW

A way to empathize with users is all about making the user feel comfortable and asking lots of questions

- Follow interview etiquette
- Ask open-ended questions



# INTERVIEWING ACTIVITIES



**Take notes**



## TAKE NOTES

Without taking notes, recounting exactly what participants expressed can be nearly impossible!

- Highlight compelling quotes
- Document observations about participants
- Record interviews



# INTERVIEWING ACTIVITIES



---

**End the interview**

---



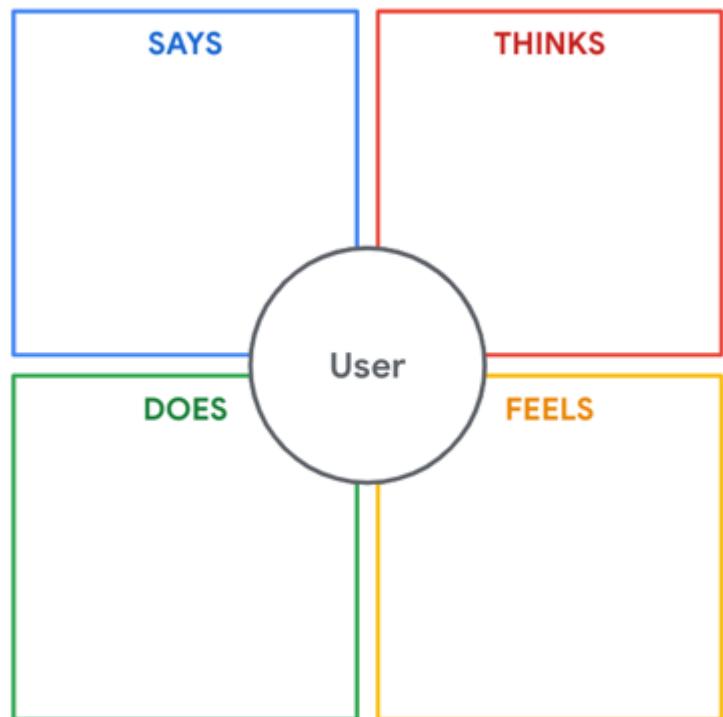
## END THE INTERVIEW

- Give users a chance to share their final thoughts about any items discussed during the interview
- Also, remember to thank participants once more



# EMPATHY MAP

An easily understood chart that explains everything designers have learned about a type of user





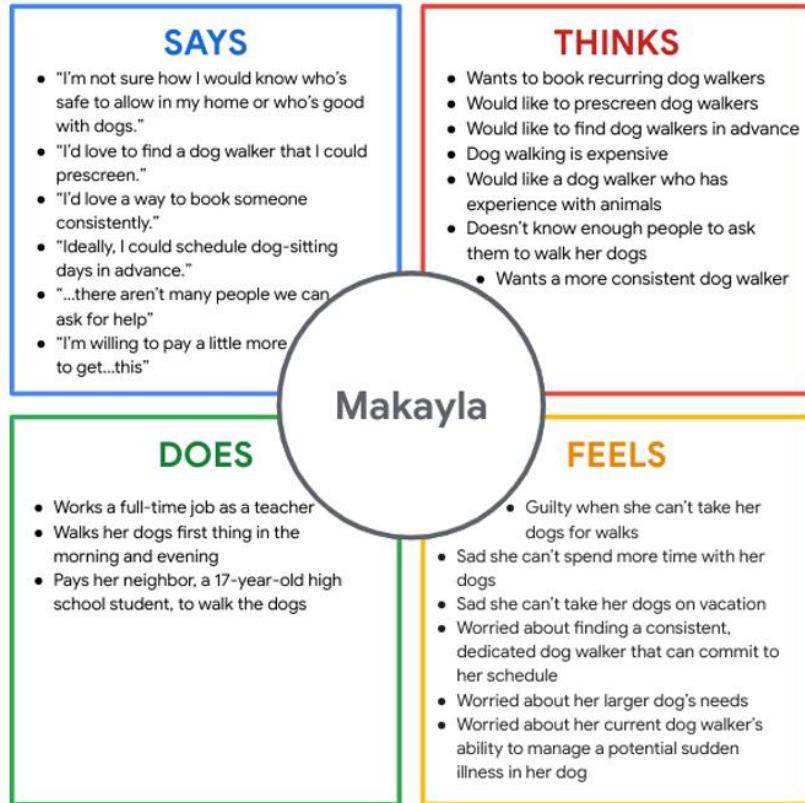
## CREATING AN EMPATHY MAP

- **Add the** name of the person interviewed
- **The “says” square:** write down exactly what the person said; don’t summarize it in your own words
- **The “thinks” square:** summarize the thoughts expressed by the user. Add feelings the user conveyed through body language, tone, or other noticeable indicators
- **The “does” square:** What users do
- **The “feels” square:** List the feelings the user expresses. The notes you include may overlap with some of what you listed in the “thinks” square





# EMPATHY MAP





# IDENTIFY USER PAIN POINTS

User pain points are any UX problems that frustrate the user and prevent them from getting what they need:

- **Financial pain points:** these are user issues that have to do with money
- **Product pain points,** these are usually quality issues related to the product
- **Process pain points,** these are frustrations that prevent the user from getting from Point A to Point B
- **Support pain points:** Users cannot find answers to their questions when using the product



# UNDERSTAND PERSONAS

**Personas** are fictional users whose goals and characteristics represent the needs of a larger group of users

- Personas are created by conducting user research and identifying common **pain points**
- Look for the most common themes in your data and group the users who personify those themes together
- Generally, creating 3 to 8 personas is enough to represent the majority of a product's user base



# PERSONAS



**Daniela**

**Age:** 48

**Education:** Master's degree

**Hometown:** Atlanta, Georgia, USA

**Family:** Married, two children

**Occupation:** Film producer

*"I'm not sure how I feel about having a stranger in my house and trusting them with our puppy."*

## Goals

- Find a dog walker while they and their family are traveling.
- Hire an experienced, knowledgeable dog walker.

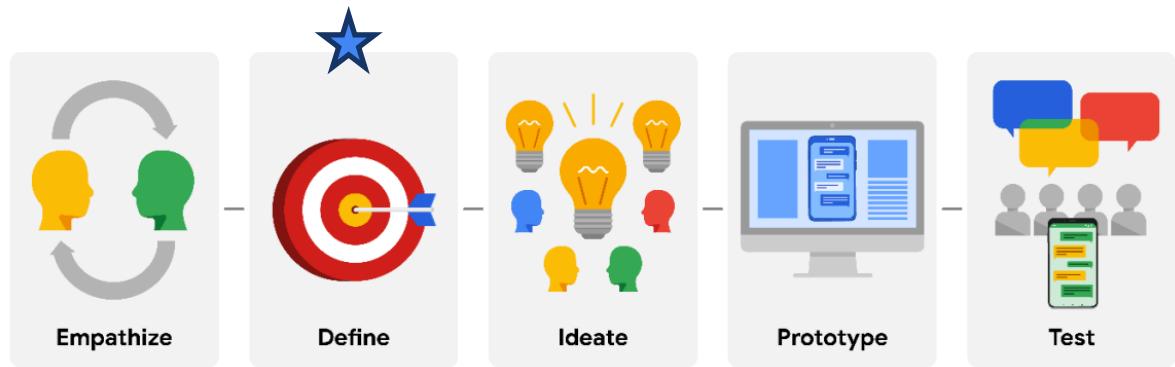
## Frustrations

- Traveling more for work so they have less time with the puppy.
- Concerned about trusting strangers in the house or with dog.

Daniela is a 48-year-old freelance film producer who lives with their partner and two children. The family recently adopted a golden retriever named Cisco. Daniela often travels for work, and the family takes regular trips for the kids' gymnastics competitions. Daniela wants to find a dog walker to care for their puppy while the family is traveling. Daniela would be most comfortable hiring someone who knows how to properly care for puppies.

# DEFINE

---





# USER STORY

A fictional one-sentence story told from the persona's point of view to inspire and inform design decisions



**Hero**

**Goal**

**Conflict**



## USER STORY

**User stories** should be written in the following format:

Who

What

Why

As a type of user, I want to action, so that benefit.



## USER STORIES



Makayla Scott

As a frequent traveler, I want to hire a consistent dog walker so that I can feel comfortable about the safety of my pets while I'm on vacation.



Tobias Clark

As a dog owner, I want to trust my dog walker so I can hire them for regular dog walks.



Darlene Wu

As a busy executive, I want to trust that dog walkers won't stand me up so I can work worry-free.



## USER STORIES



Carlos Bernal

As an indecisive student, I want to try many walkers so I can pick one for regular walks.



Daniella Ortega

As a mother of two, I want to limit the amount of access to my home so I can keep my family safe.



Jessica Banks

As a former police officer, I want to track my dog walker so I am comfortable with the safety of my pets.



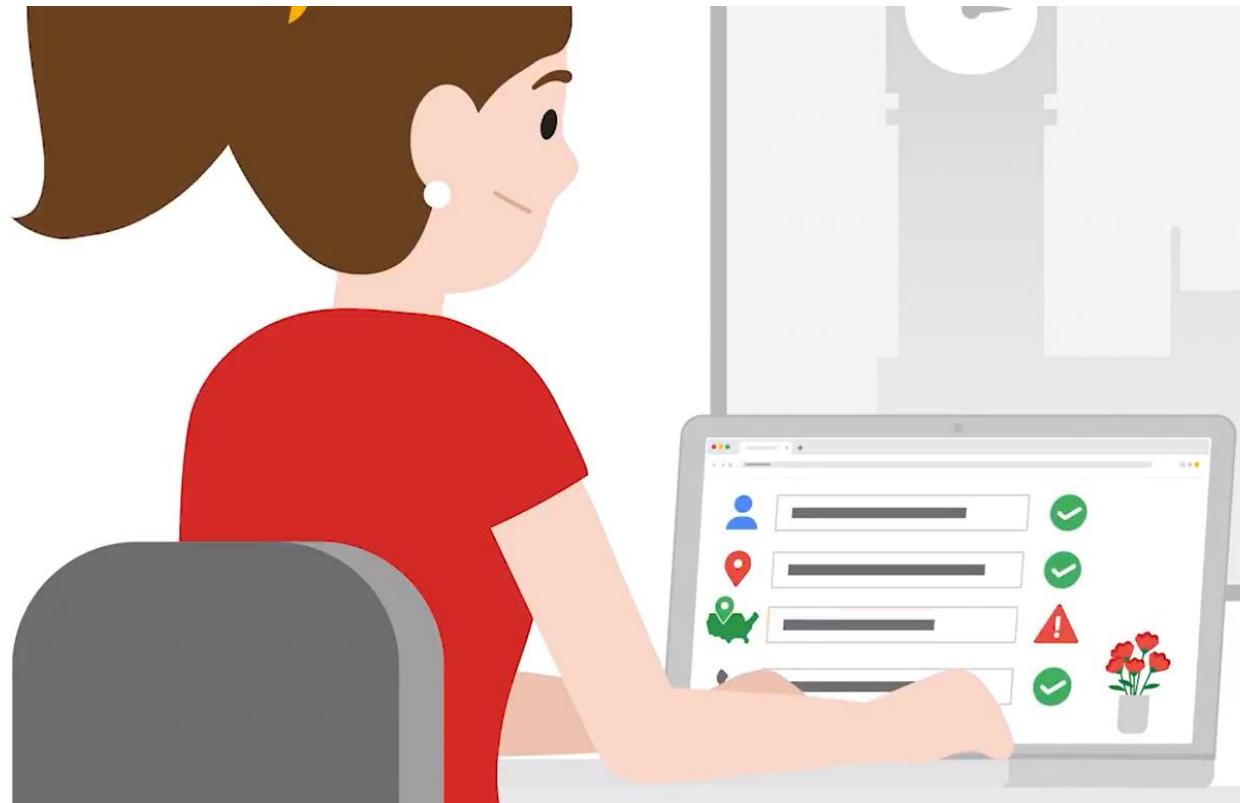
# ADVANTAGES OF USER STORIES

- Prioritize design goals
- Unite the team
- Inspire empathic design decisions
- Personalize pitches to stakeholders

# HAPPY PATH

A user story with a happy ending



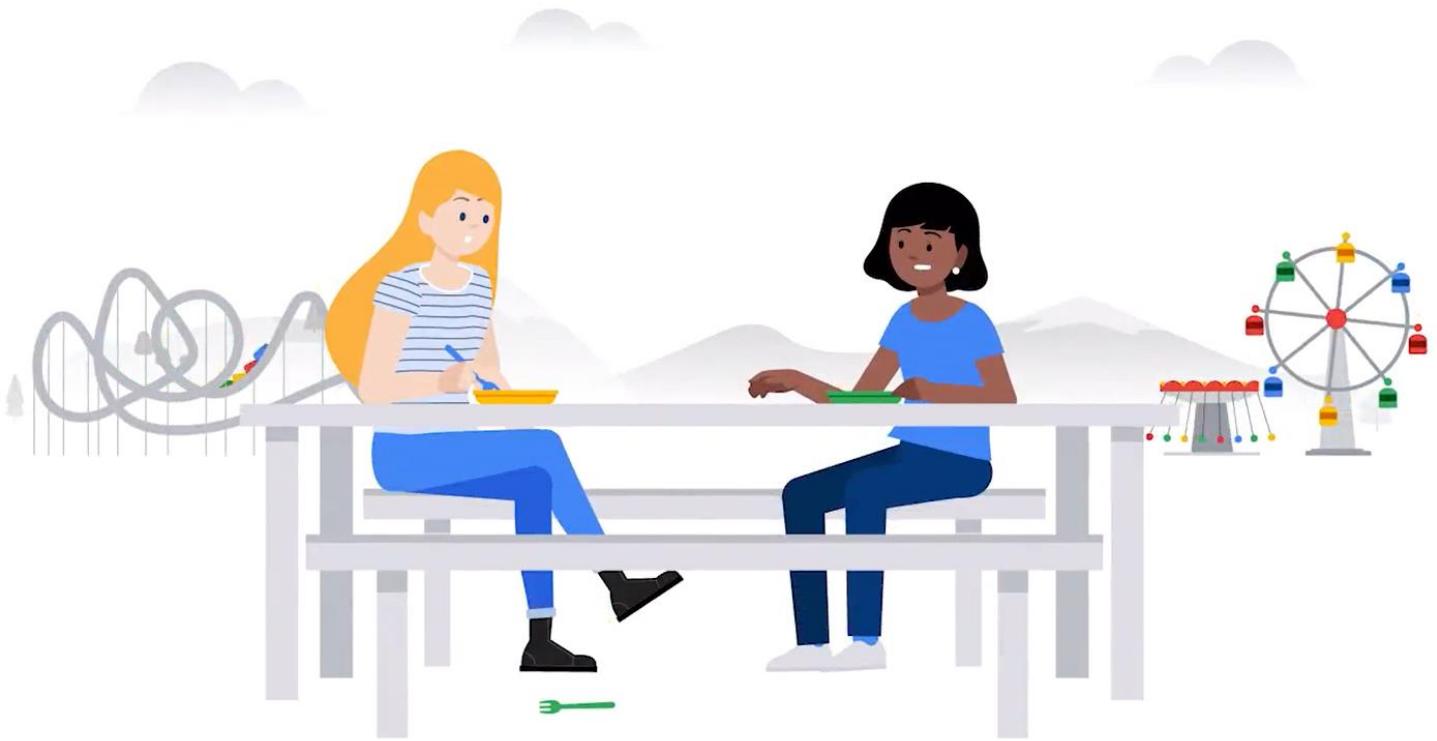


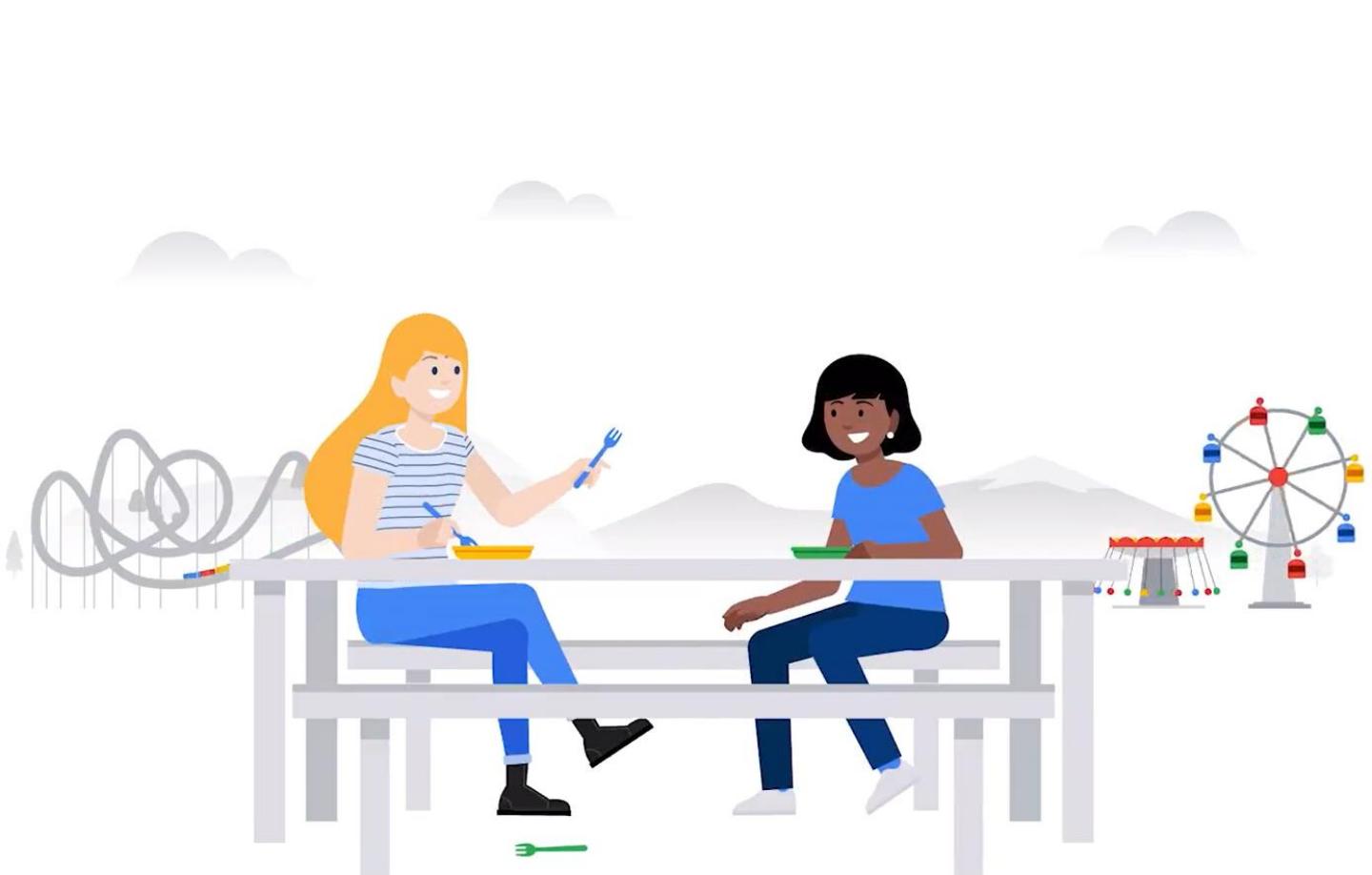
# EDGE CASE

A rare situation or unexpected problem that interrupts a standard user experience

# SPOTTING & RESOLVING EDGE CASES

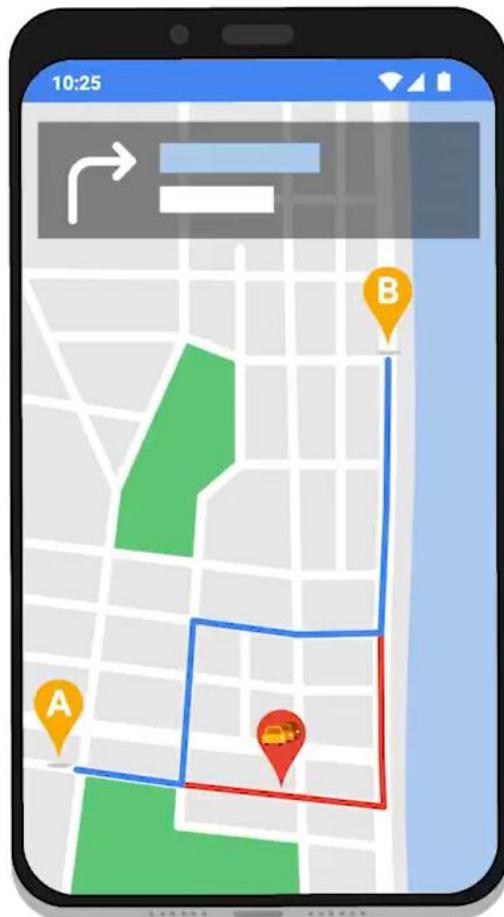
- Create personas and user stories
- Thoroughly review the project before launch
- Use wireframes





# USER JOURNEY

The series of experiences a user has as they achieve a specific goal



# BENEFITS OF USER JOURNEY MAPPING

- Help UX designers create obstacle-free paths for users
- Reduces the impact of designer bias
- Highlights new pain points
- Identify improvement opportunities



# HOW TO MAP OUT A USER JOURNEY

## Example:

Jamal, comes from a town of 500 people in rural Mississippi. He uses a wheelchair to get around and he's visiting New York City for the first time. Today, he wants to fulfill his dream of going all the way to the top of the Empire State Building. How do we map out his journey? To start, identify the first task the user needs to complete. In this case, Jamal needs to find a subway route that will take him to the Empire State Building. Next, list all the things the user needs to do to reach their goal. Here's a list of Jamal's main tasks. Task 1, determine the subway line and route to take. Task 2, find the nearest station with wheelchair accessibility. Task 3, buy a ticket. Task 4, find the right platform and make sure the train is headed toward the Empire State Building and not away from it. Task 5, board the subway. Task 6, find the right exit.

## Step 1

Add each action in the journey  
until the user reaches their goal

## **Persona: Jamal**

Goal: Find a subway route that will take him to the Empire State Building

ACTION	Action 1	Action 2	Action 3	Action 4	Action 5	Action 6
TASK LIST						
FEELING ADJECTIVE						
IMPROVEMENT OPPORTUNITIES						

## Persona: Jamal

Goal: Find a subway route that will take him to the Empire State Building

ACTION	Determine the subway line and route	Find the nearest station with wheelchair accessibility	Buy a ticket	Find the right platform	Board the subway	Find the right exit
TASK LIST						
FEELING ADJECTIVE						
IMPROVEMENT OPPORTUNITIES						

## Step 2

**Add descriptions for each action**

**What tasks does the user have to do?**

## Persona: Jamal

Goal: Find a subway route that will take him to the Empire State Building

ACTION	Determine the subway line and route	Find the nearest station with wheelchair accessibility	Buy a ticket	Find the right platform	Board the subway	Find the right exit
TASK LIST	Tasks A. B. C.	Tasks A. B. C.	Tasks A. B. C.	Tasks A. B. C.	Tasks A. B. C.	Tasks A. B. C.
FEELING ADJECTIVE						
IMPROVEMENT OPPORTUNITIES						

## Persona: Jamal

Goal: Find a subway route that will take him to the Empire State Building

ACTION	Determine the subway line and route	Find the nearest station with wheelchair accessibility	Buy a ticket	Find the right platform	Board the subway	Find the right exit
TASK LIST	Tasks  A. Find and read subway map B. Identify fastest route C. Use map app	Tasks  A. Use map app B. Check station accessibility C. Get to station	Tasks  A. Find accessible kiosk B. Determine ticket to buy C. Pay for ticket	Tasks  A. Follow signs B. Find the line number or letter C. Go uptown D. Find elevator	Tasks  A. Find space for wheelchair	Tasks  A. Open map app to find exit to use B. Follow signs
FEELING ADJECTIVE						
IMPROVEMENT OPPORTUNITIES						

## Step 3

**Add how the user feels at each point**

## Persona: Jamal

Goal: Find a subway route that will take him to the Empire State Building

ACTION	Determine the subway line and route	Find the nearest station with wheelchair accessibility	Buy a ticket	Find the right platform	Board the subway	Find the right exit
TASK LIST	Tasks A. Find and read subway map B. Identify fastest route C. Use map app	Tasks A. Use map app B. Check station accessibility C. Get to station	Tasks A. Find accessible kiosk B. Determine ticket to buy C. Pay for ticket	Tasks A. Follow signs B. Find the line number or letter C. Go uptown D. Find elevator	Tasks A. Find space for wheelchair	Tasks A. Open map app to find exit to use B. Follow signs
FEELING ADJECTIVE	● User emotion	● User emotion	● User emotion	● User emotion	● User emotion	● User emotion
IMPROVEMENT OPPORTUNITIES						

## Persona: Jamal

Goal: Find a subway route that will take him to the Empire State Building

ACTION	Determine the subway line and route	Find the nearest station with wheelchair accessibility	Buy a ticket	Find the right platform	Board the subway	Find the right exit
TASK LIST	Tasks  A. Find and read subway map B. Identify fastest route C. Use map app	Tasks  A. Use map app B. Check station accessibility C. Get to station	Tasks  A. Find accessible kiosk B. Determine ticket to buy C. Pay for ticket	Tasks  A. Follow signs B. Find the line number or letter C. Go uptown D. Find elevator	Tasks  A. Find space for wheelchair	Tasks  A. Open map app to find exit to use B. Follow signs
FEELING ADJECTIVE	● Confused ● Intimidated	● Lost ● Hopeful	● Confused ● Satisfied	● Overwhelmed ● Excluded	● Relieved ● Glad ● Alert	● Excited ● Confused
IMPROVEMENT OPPORTUNITIES						

## Step 4

**Add opportunities for improvement**

**This is where new ideas may come from!**

## Persona: Jamal

Goal: Find a subway route that will take him to the Empire State Building

ACTION	Determine the subway line and route	Find the nearest station with wheelchair accessibility	Buy a ticket	Find the right platform	Board the subway	Find the right exit
TASK LIST	Tasks A. Find and read subway map B. Identify fastest route C. Use map app	Tasks A. Use map app B. Check station accessibility C. Get to station	Tasks A. Find accessible kiosk B. Determine ticket to buy C. Pay for ticket	Tasks A. Follow signs B. Find the line number or letter C. Go uptown D. Find elevator	Tasks A. Find space for wheelchair	Tasks A. Open map app to find exit to use B. Follow signs
FEELING ADJECTIVE	<ul style="list-style-type: none"> <li>● Confused</li> <li>● Intimidated</li> </ul>	<ul style="list-style-type: none"> <li>● Lost</li> <li>● Hopeful</li> </ul>	<ul style="list-style-type: none"> <li>● Confused</li> <li>● Satisfied</li> </ul>	<ul style="list-style-type: none"> <li>● Overwhelmed</li> <li>● Excluded</li> </ul>	<ul style="list-style-type: none"> <li>● Relieved</li> <li>● Glad</li> <li>● Alert</li> </ul>	<ul style="list-style-type: none"> <li>● Excited</li> <li>● Confused</li> </ul>
IMPROVEMENT OPPORTUNITIES	<ul style="list-style-type: none"> <li>● Improvement opportunity</li> </ul>	<ul style="list-style-type: none"> <li>● Improvement opportunity</li> </ul>	<ul style="list-style-type: none"> <li>● Improvement opportunity</li> </ul>	<ul style="list-style-type: none"> <li>● Improvement opportunity</li> </ul>	<ul style="list-style-type: none"> <li>● Improvement opportunity</li> </ul>	<ul style="list-style-type: none"> <li>● Improvement opportunity</li> </ul>

## Persona: Jamal

Goal: Find a subway route that will take him to the Empire State Building

ACTION	Determine the subway line and route	Find the nearest station with wheelchair accessibility	Buy a ticket	Find the right platform	Board the subway	Find the right exit
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IMPROVEMENT OPPORTUNITIES	<ul style="list-style-type: none"> <li>● Better wayfinding</li> </ul>	<ul style="list-style-type: none"> <li>● Better wayfinding</li> <li>● Accessibility key on map app</li> </ul>	<ul style="list-style-type: none"> <li>● Ticket explanations</li> </ul>	<ul style="list-style-type: none"> <li>● Better wayfinding</li> <li>● Designated walk lanes</li> </ul>	<ul style="list-style-type: none"> <li>● Phone vibrates to inform user when to get off of subway</li> </ul>	<ul style="list-style-type: none"> <li>● Signs mention landmarks (not corner)</li> </ul>

**The journey map is complete!**

# PROBLEM STATEMENT

A clear description of the user's needs that should be addressed

- Human-centered
- Broad enough for creative freedom
- Narrow enough to be solved by a design



**Who**



**What**



**Where**



**When**



**Why**



**How**

## **PROBLEM STATEMENT**

Click to add text

user name

is a/an

Click to add text

user characteristics

who needs

Click to add text

user need

because

Click to add text

insight



## Arnold Jones

**Age:** 58

**Education:** PhD

**Hometown:** Boston, Massachusetts

**Family:** Widowed, four adult kids

**Occupation:** Pharmaceutical executive

## **PROBLEM STATEMENT**

Arnold

user name

is a/an

busy executive

user characteristics

who needs

an easy app experience to hire a dog walker

user need

because

he's not technologically savvy

insight

# PROBLEM STATEMENT

- Establish goals
- Understand constraints
- Define deliverables
- Create benchmarks for success

# CONSIDER ACCESSIBILITY WHEN EMPATHIZING

Accessibility is not just designing to include a group of users with varying abilities.

Instead, it extends to anyone who is experiencing a permanent, temporary, or situational disability.

# Touch

Permanent



One arm

Temporary



Arm injury

Situational



New parent

# See

Permanent



Blind

Temporary



Wears glasses

Situational



Distracted driver

# Hear

Permanent



Temporary



Situational



Deaf

Ear infection

Bartender

# Speak

Permanent



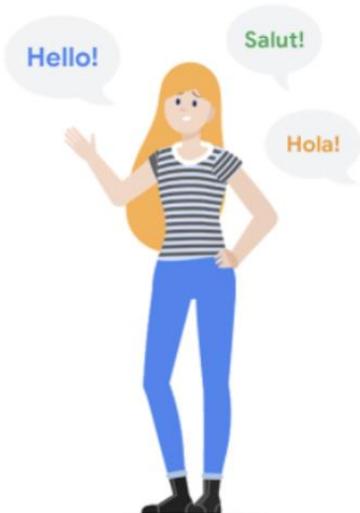
Nonverbal

Temporary

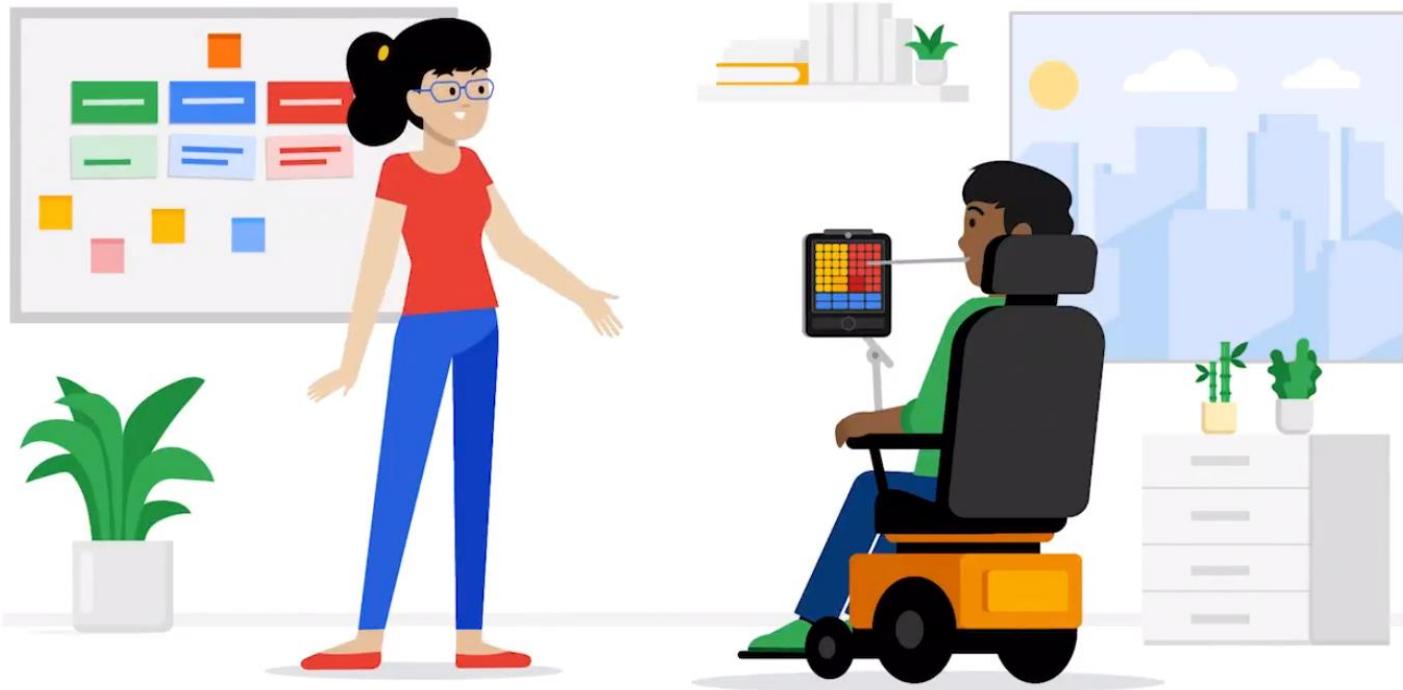


Laryngitis

Situational



Non-native speaker



# CURB CUT

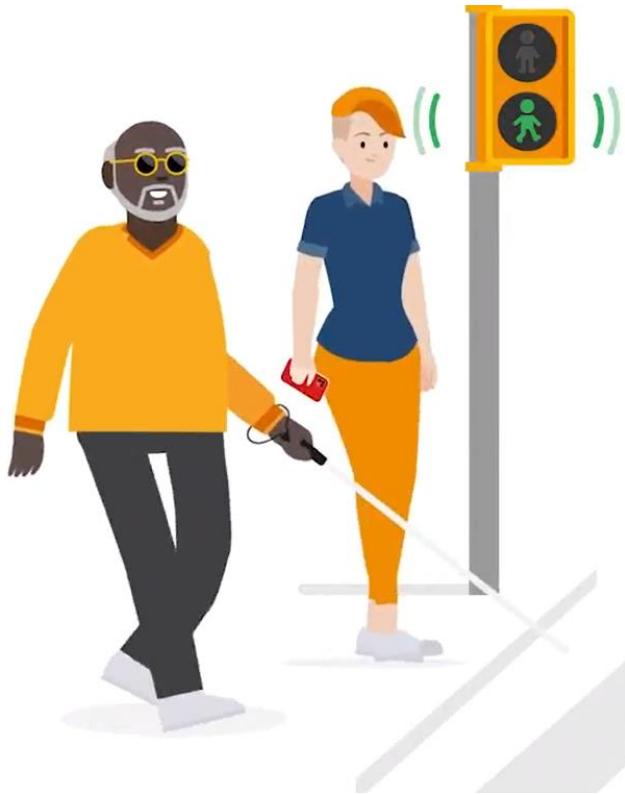
The slope of the sidewalk that creates a ramp with the adjoining street

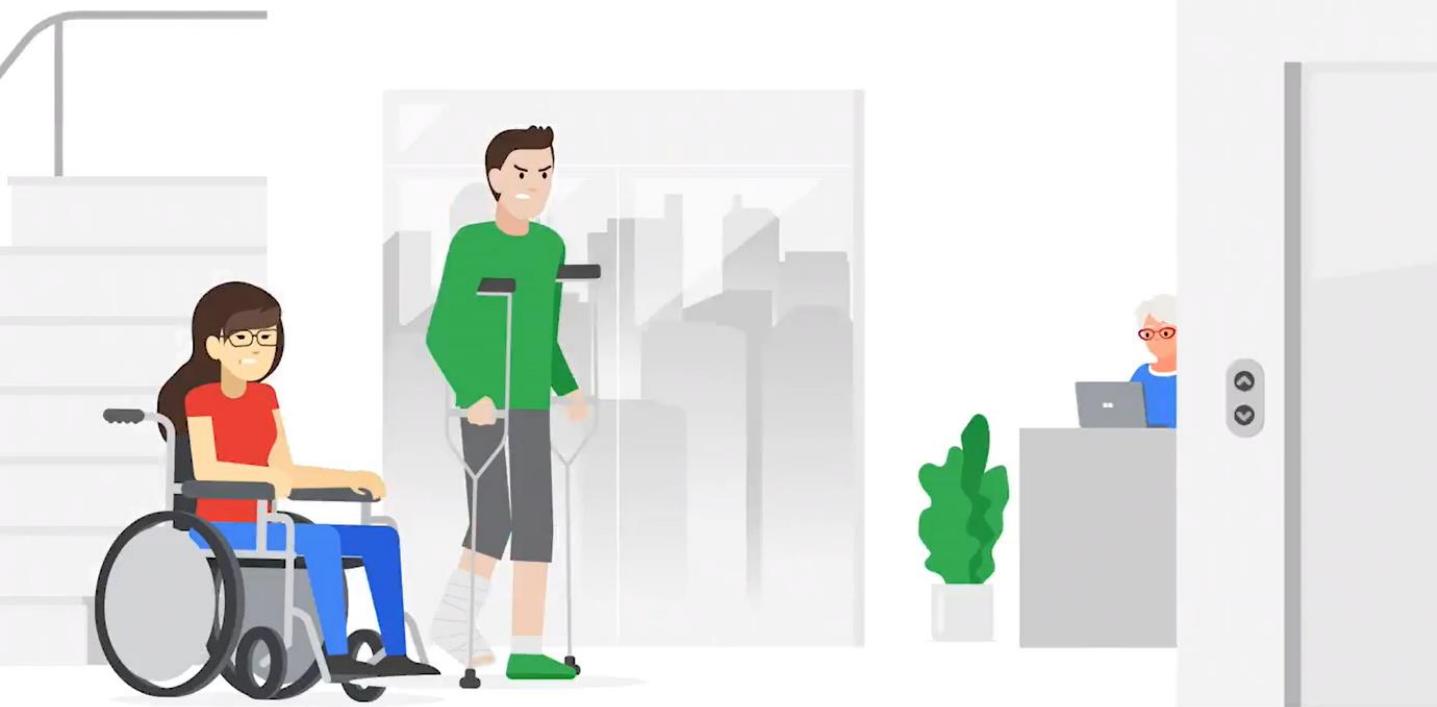


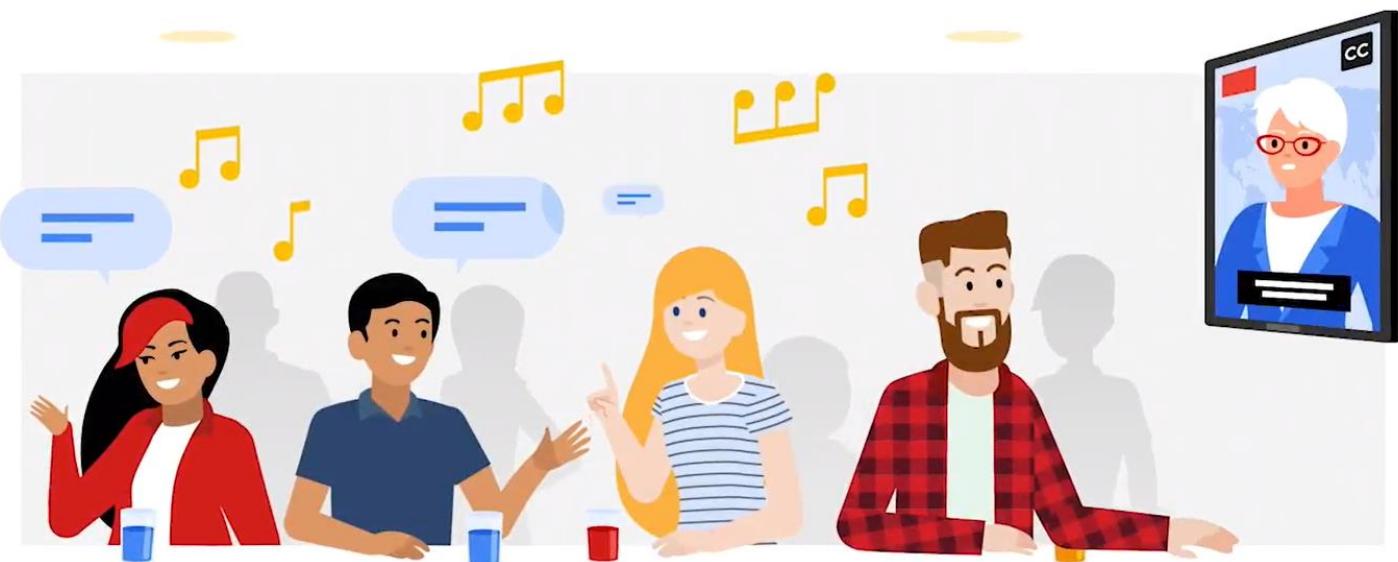


## CURB-CUT EFFECT

A phenomenon that describes how products and policies designed for people with disabilities often end up helping everyone

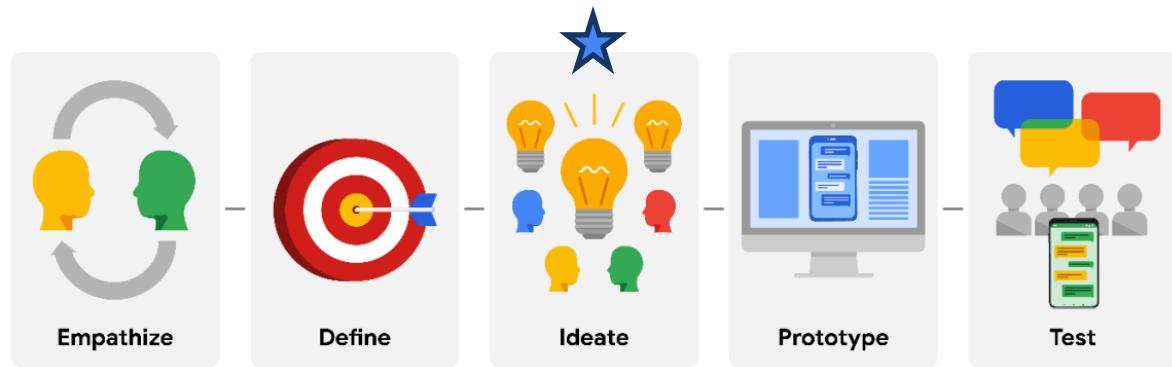


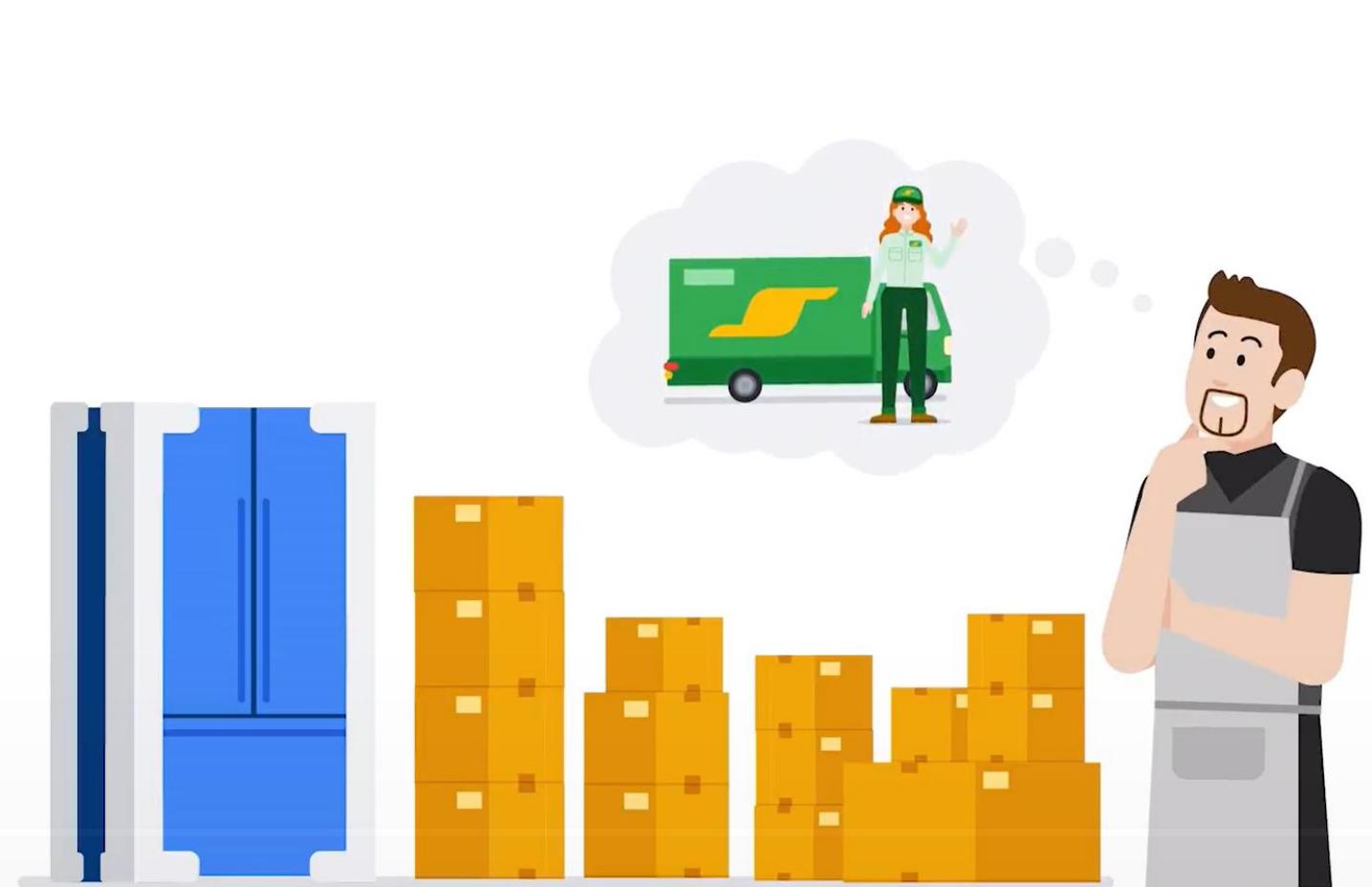




# IDEATE

---





# HYPOTHESIS STATEMENT

Our best educated guess on what we think the solution to a design problem might be

If



action

then



outcome

If

Arnold signs up for the dog walker app

---

action

then

he will quickly and easily pick a walker  
that fits his schedule.

---

outcome

# VALUE PROPOSITION

The reason why a consumer should use a product or a service

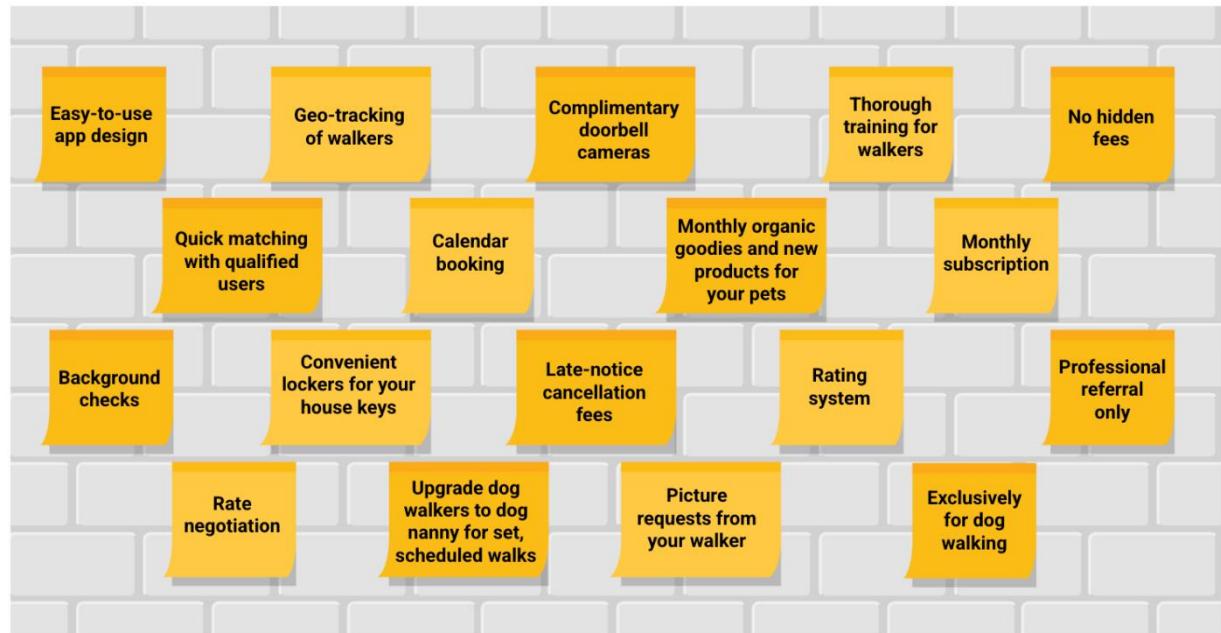
# VALUE PROPOSITION

- What does your product do?
- And why should the user care?



# DETERMINE A VALUE PROPOSITION

Step 1: Describe your product's features and benefits





# DETERMINE A VALUE PROPOSITION

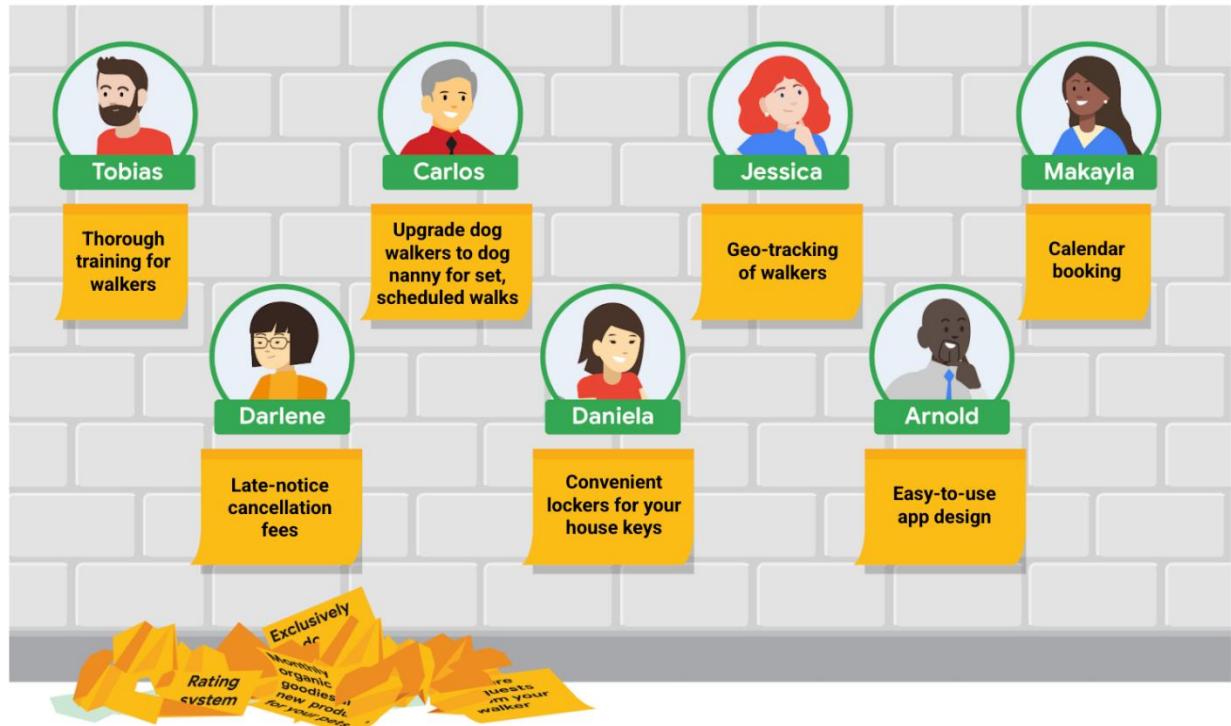
Step 2: Explain the value of the product





# DETERMINE A VALUE PROPOSITION

Step 3: Connect these features and benefits with the needs of your users





## DETERMINE A VALUE PROPOSITION

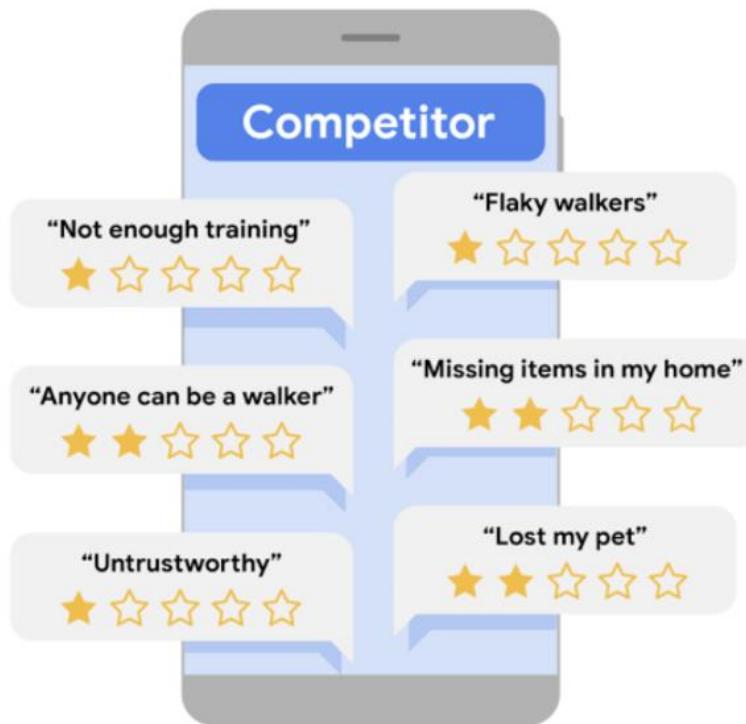
Step 4: Review your official value proposition list

- Thorough training for walkers
- Upgrade dog walkers to dog nanny for set, scheduled walks
- Geo-tracking of walkers
- Calendar booking
- Late-notice cancellation fees
- Convenient lockers that hold your house keys
- Easy-to-use app design



## DETERMINE A VALUE PROPOSITION

Check out your product's competitors is to read reviews



# THE HUMAN FACTOR

Describe the range of variables humans bring to their product interactions

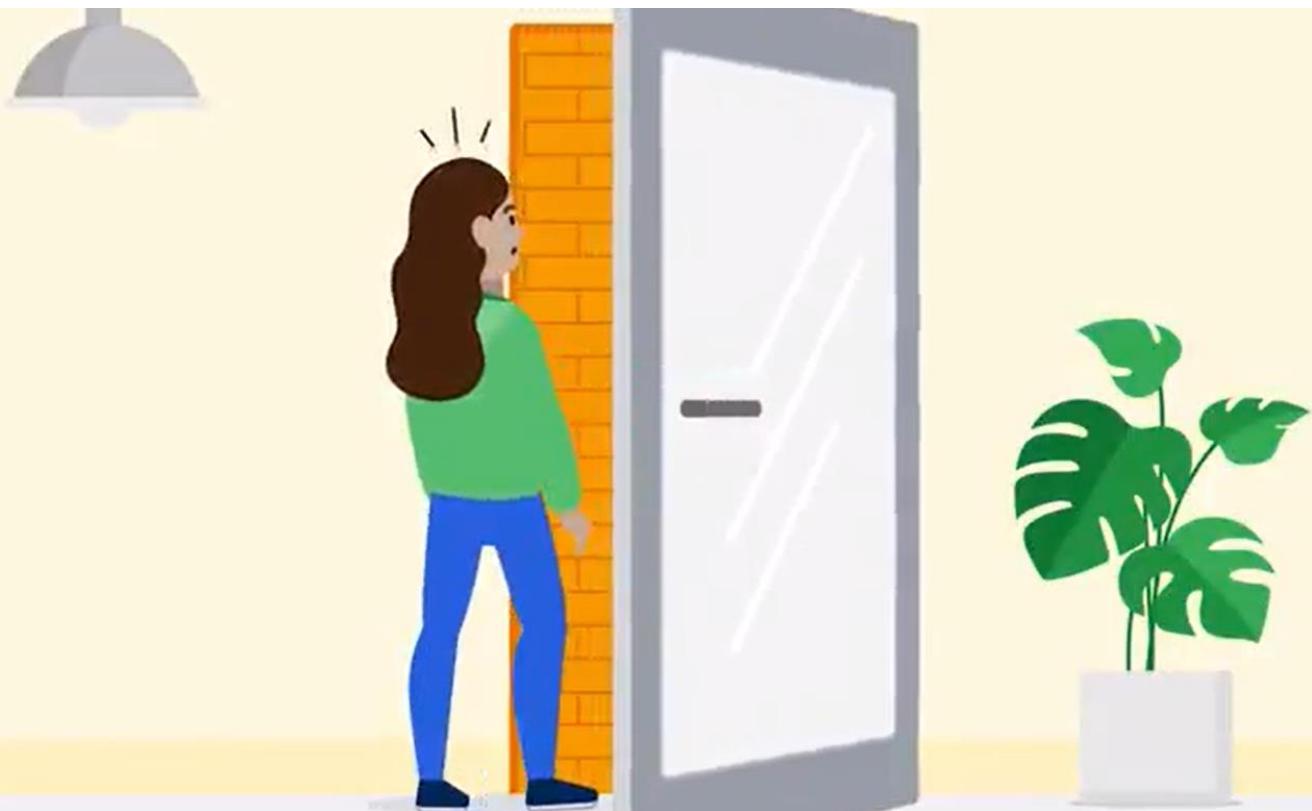
# COMMON HUMAN FACTORS THAT INFORM DESIGN

- Impatience
- Limited memory
- Needing analogies
- Limited concentration
- Changes in need
- Needing motivation
- Prejudices
- Fears
- Making errors
- Misjudgment

# MENTAL MODELS

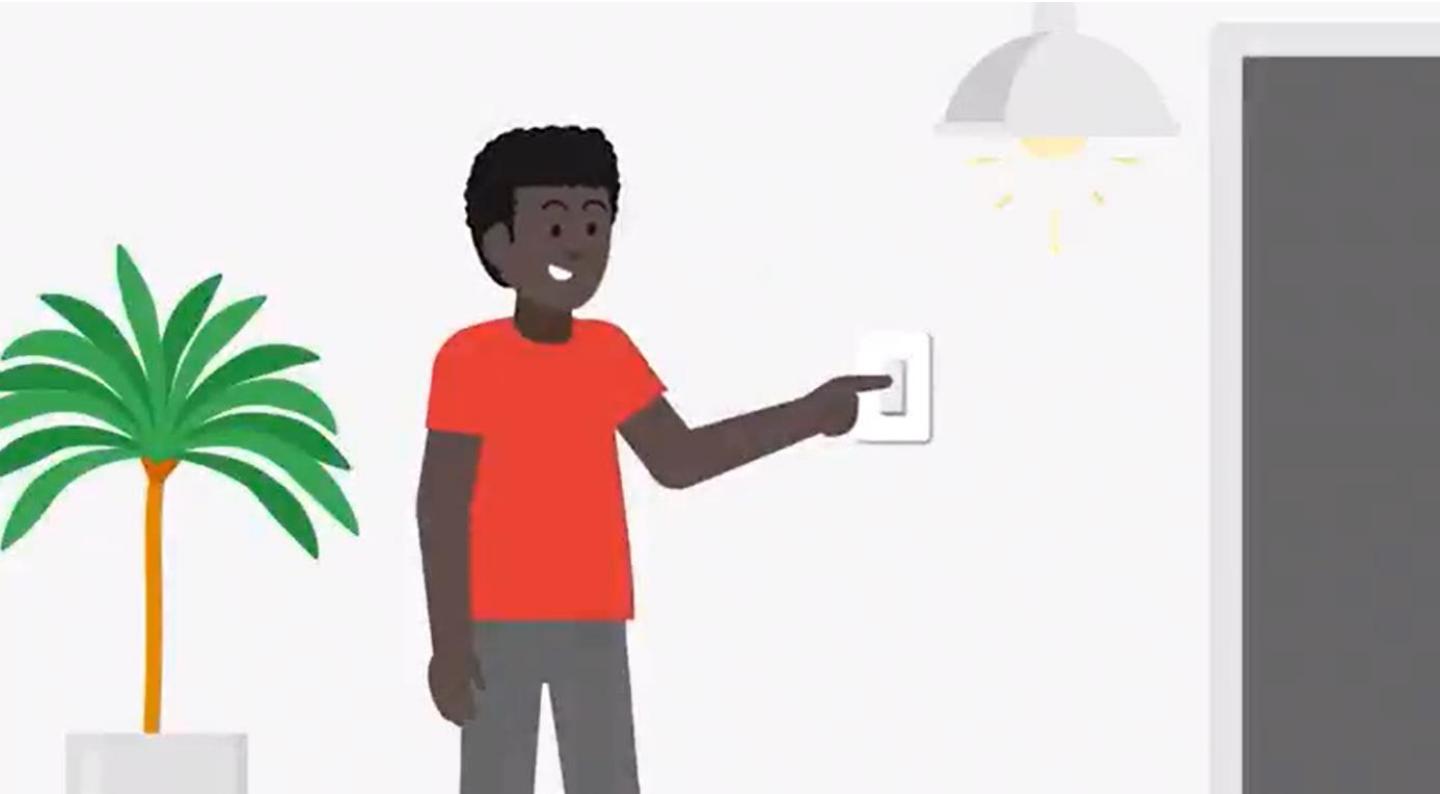
Internal maps that allow humans to predict how something will work





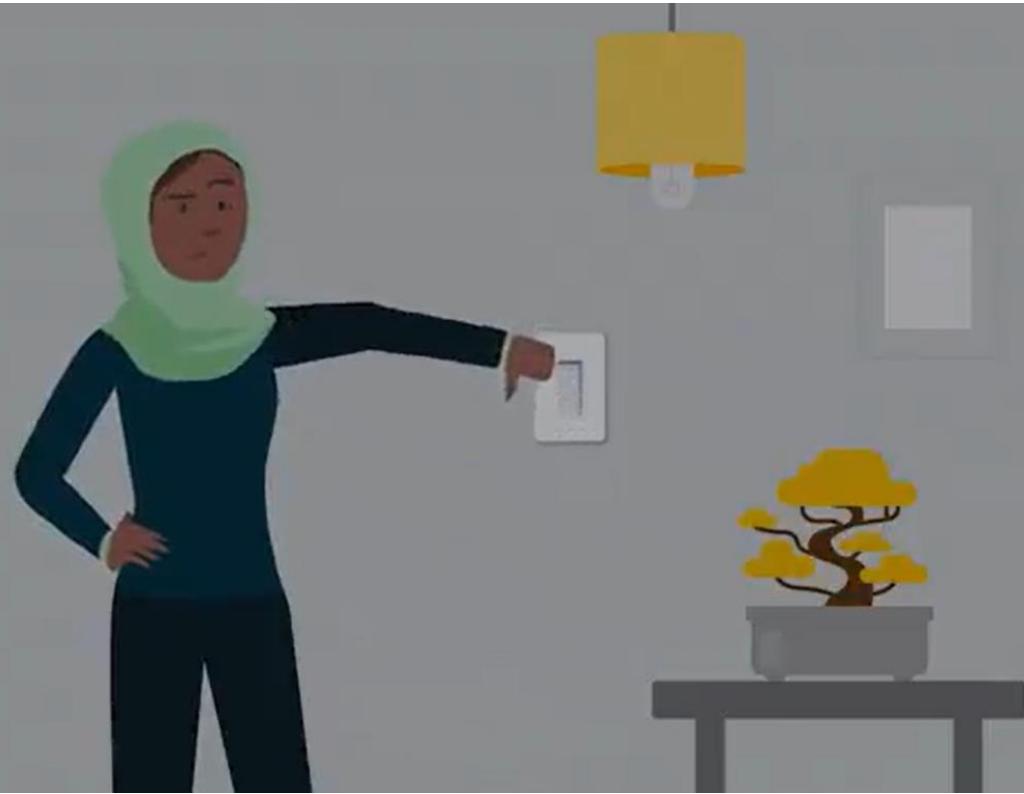
# FEEDBACK LOOPS

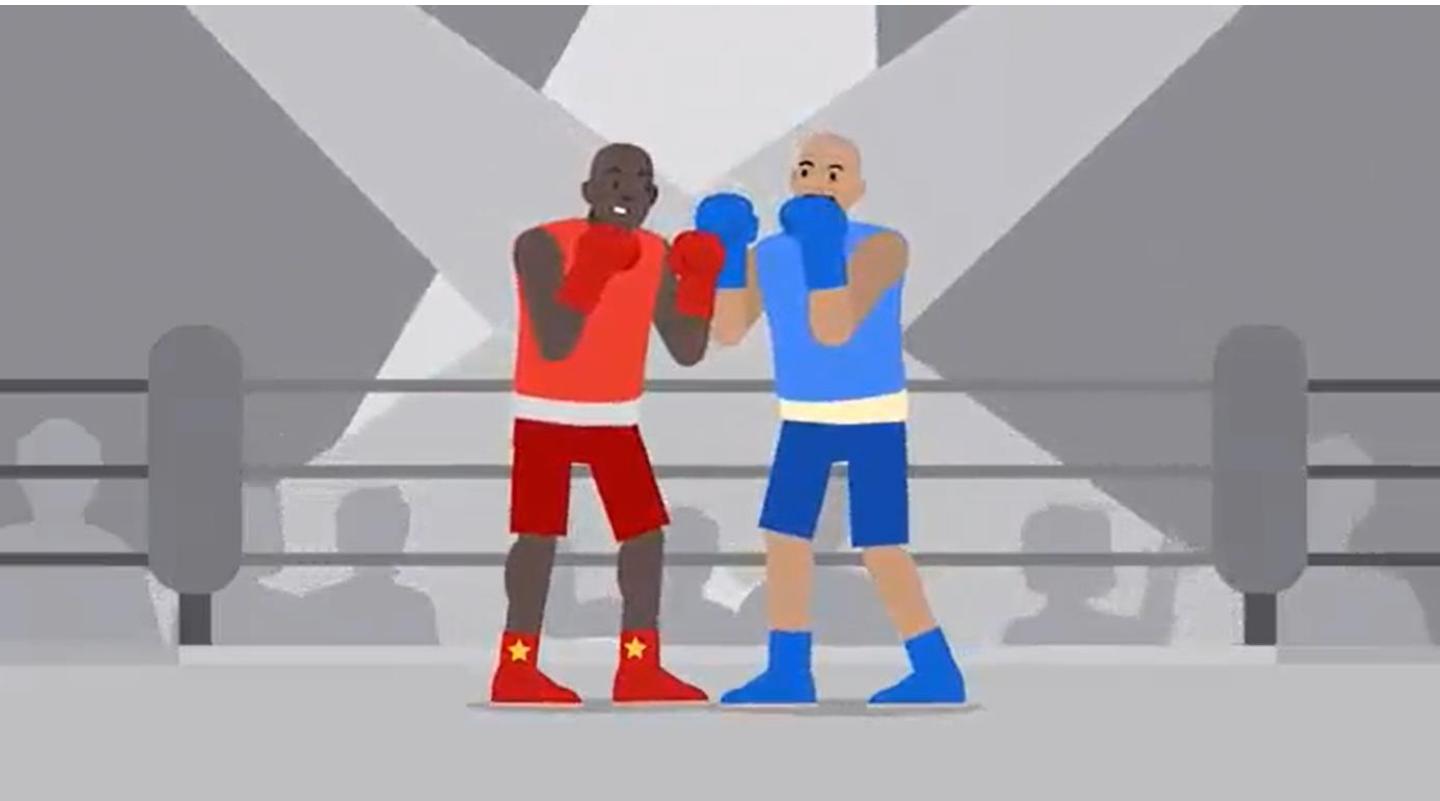
The outcome a user gets at the end of a process













# VON RESTORFF EFFECT (ISOLATION EFFECT)

When multiple similar objects are present, the one that differs from the rest is most likely to be remembered



# CALL-TO-ACTION (CTA)

A visual prompt that tells the user to take action



Industrial University of Ho Chi M



## Industrial University of Ho Chi Minh City

Trường Đại học Công nghiệp TP.HCM

4.1 ★★★★☆ (2,190)

University · ♂

Overview

Reviews

About



Directions



Save



Nearby



Send to phone



Share

# SERIAL POSITION EFFECT

When people are given a list of items, they are more likely to remember the first few and the last few, while the items in the middle tend to blur

09:47

4G

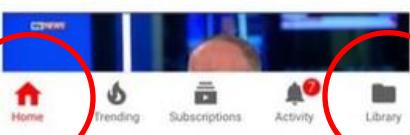
YouTube



JOE ROGAN ASKS NEIL DEGRASSE  
TYSON: WHY HAVEN'T WE GONE 'BACK' ...  
Clip King · 685K views · 3 months ago



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# HICK'S LAW

The more options a user has, the longer it takes for them to make a decision



# IDEATION

The process of generating a broad set of ideas on a given topic, with no attempt to judge or evaluate them



2000



Today



# PREPARING FOR IDEATION



Empathize with your user



Set a time limit



Define the problem



Assemble a diverse team



Establish a creative environment



Think outside the box

# IDEATION IN THE REAL WORLD

- Brainstorm out loud
- Document all ideas
- Focus on quantity
- Do not allow evaluation
- Gather a diverse team
- Question the obvious
- Evaluate the ideas

# EXPLORE LOTS OF IDEAS

Problem: Olivia is a parent who needs a way to ride her bike with her two-year-old, Luca, because he can't ride his own bike



# WHY SHOULD WE COME UP WITH A LOT OF IDEAS?

- List of ideas is narrowed based on constraints
- Need to focus on equity
- Let users test the ideas

# EVALUATE IDEAS

- **Feasible:** Technically possible to build
- **Desirable:** Best at solving the user problem
- **Viable:** Financially beneficial for the business

# IDEATION FOR BUSINESS NEEDS

Two major components of branding are voice and tone



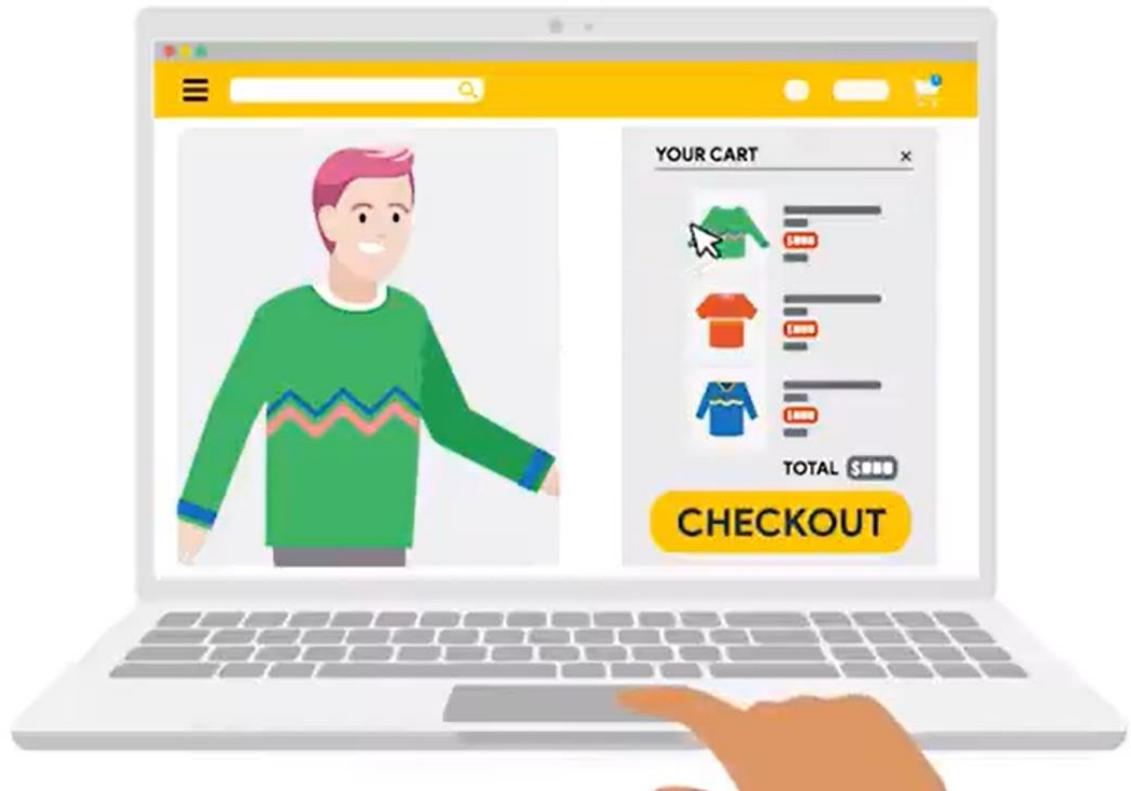
Great choice!

Your purchase should be landing on your doorstep in the next **5 days!**  
Let us know how much you love it!



# IDEATION FOR BUSINESS NEEDS

Design can help facilitate a conversation between a business and its users



# COMPETITIVE AUDIT

An overview of your competitors' strengths and weaknesses

# COMPETITIVE AUDIT

- Identifying your key competitors
- Reviewing the products that your competitors offer
- Understanding how your competitors position themselves in the market
- Examining what your competition does well and what they could do better
- Considering how your competitors talk about themselves

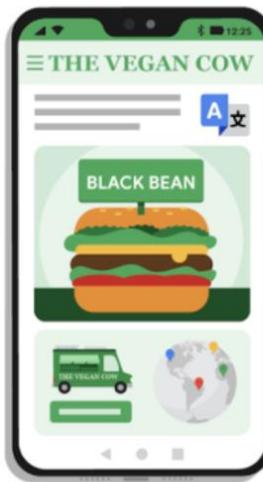
# COMPETITIVE AUDIT



Your product



Direct competitor



Indirect competitor

# BENEFITS TO COMPETITIVE AUDITS

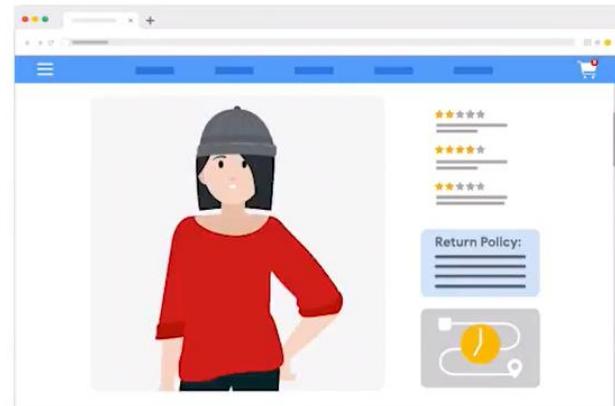
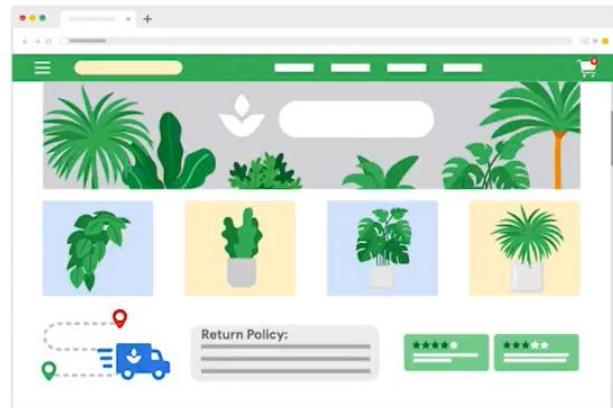
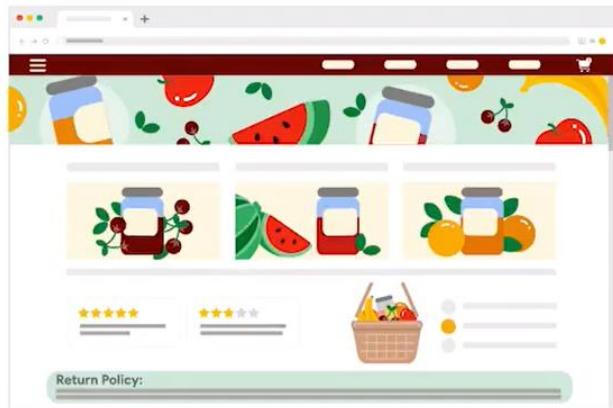
- Inform your design process
- Solve usability problems
- Reveal gaps in the market
- Provide reliable evidence
- Save time, money, and energy

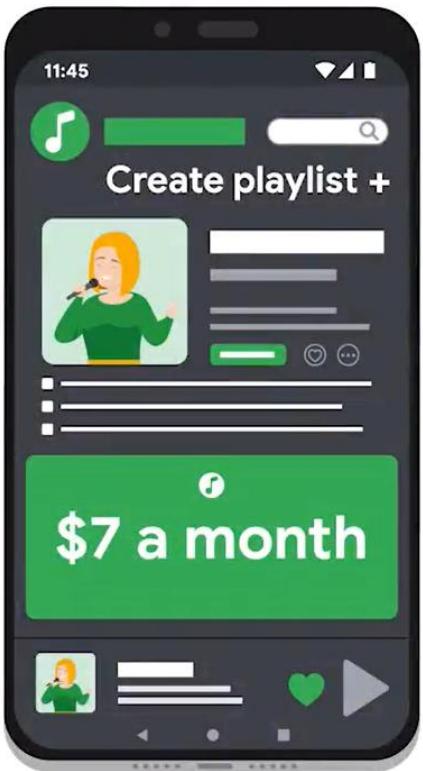
# LIMITATION OF COMPETITIVE AUDITS

- Stifle creativity
- Depend on how well you interpret the findings
- Not all designs work in all use cases
- Need to be done regularly

# COMPETITIVE AUDIT STEPS

1. Outline the goals
2. Create a spreadsheet with a list of your competitors
3. Call out the specific aspects you want to compare
4. Research each company
5. Analyze findings
6. Summarize findings in a report





# HOW MIGHT WE?

- “How” – Explore a bunch of ideas
- “Might” – Our ideas are possible solutions, not the only solution
- “We” – Collaborative effort

## HOW MIGHT WE

Problem: Olivia is a parent who needs a way to ride her bike with her two-year-old, Luca, because he can't ride his own bike

# HOW MIGHT WE

Too broad question:

- How might we design a seat for a child to ride a bike with an adult?

Too specific:

- How might we design a safe, forward-facing seat that attaches to adult's bicycle, so that a child can choose to ride or sleep while an adult rides on a mountain trail?

# HOW MIGHT WE

Good question:

- How might we design a safe and comfortable seat for a child to ride a bike with an adult?

# WAYS TO CREATE “HMW” PHRASES



Amp up the good



Explore the opposite



Change a status quo



Break the point-of-view into pieces

# WAYS TO CREATE “HMW” PHRASES



Remove the bad



Go after the adjective



Question an assumption



Create an analogy using the established need or context



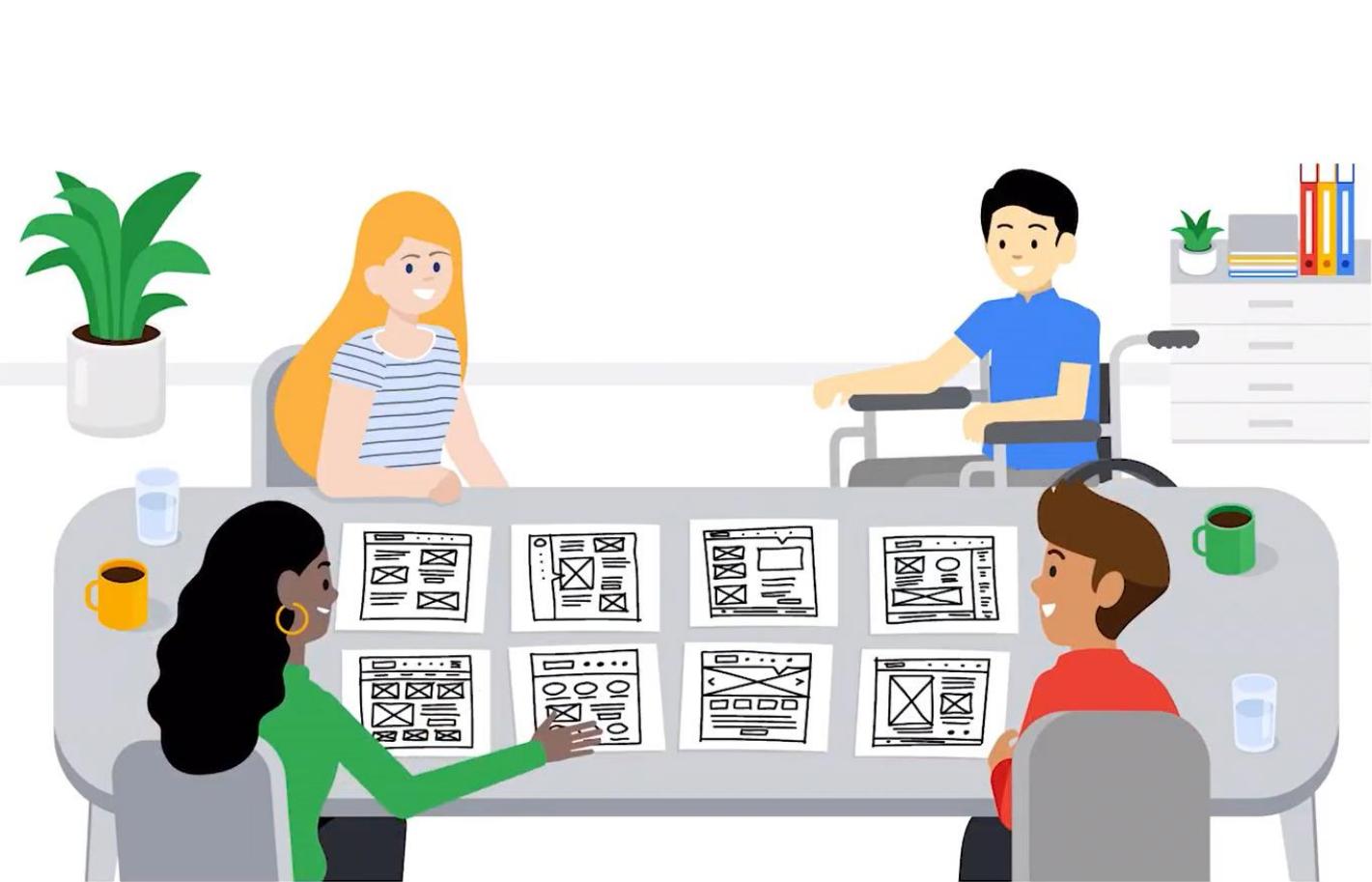
Identify unexpected resources that can provide assistance

# HMW BEST PRACTICES

- Be broad
- But don't be too broad
- Make multiple drafts
- Be creative
- Write as many HMWs as you can

# CRAZY EIGHTS

The point of sketching is to move as quickly as possible to record lots of ideas



# CRAZY EIGHTS

- Start with a large sheet of paper
- Grab something to draw with
- Set your timer to eight minutes
- Let the ideas flow



# CRAZY EIGHTS BEST PRACTICES

- Do a creative warm-up exercise
- Make sure your problem is well defined
- Don't judge your ideas
- Don't judge other people's ideas
- Include a diverse group
- Ideate in a comfortable environment
- Don't be afraid of sketching