

MORGAN STANLEY MULTICULTURAL INNOVATION LAB

# Design Thinking

# Design Thinking

a problem solving approach  
that aims to improve the lived  
experiences of people

# Design Thinking

isn't just for designers

Even though it includes  
the word design, **design  
thinking is a mindset that  
anyone can apply.**

It simply means that you're starting to **think like a designer** — about how you can improve the current experience of the people you care about: **your users.**

If you're interested in solving problems for people, then **you can practice design thinking.**





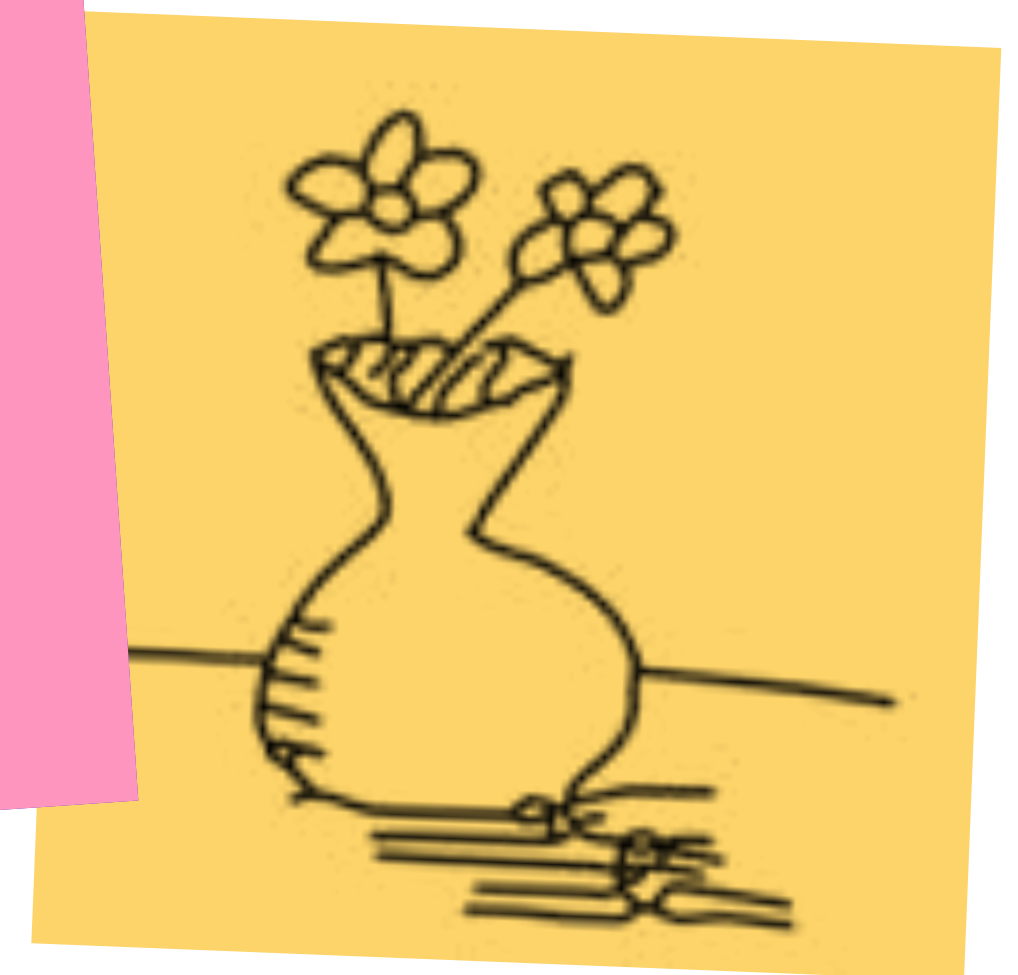
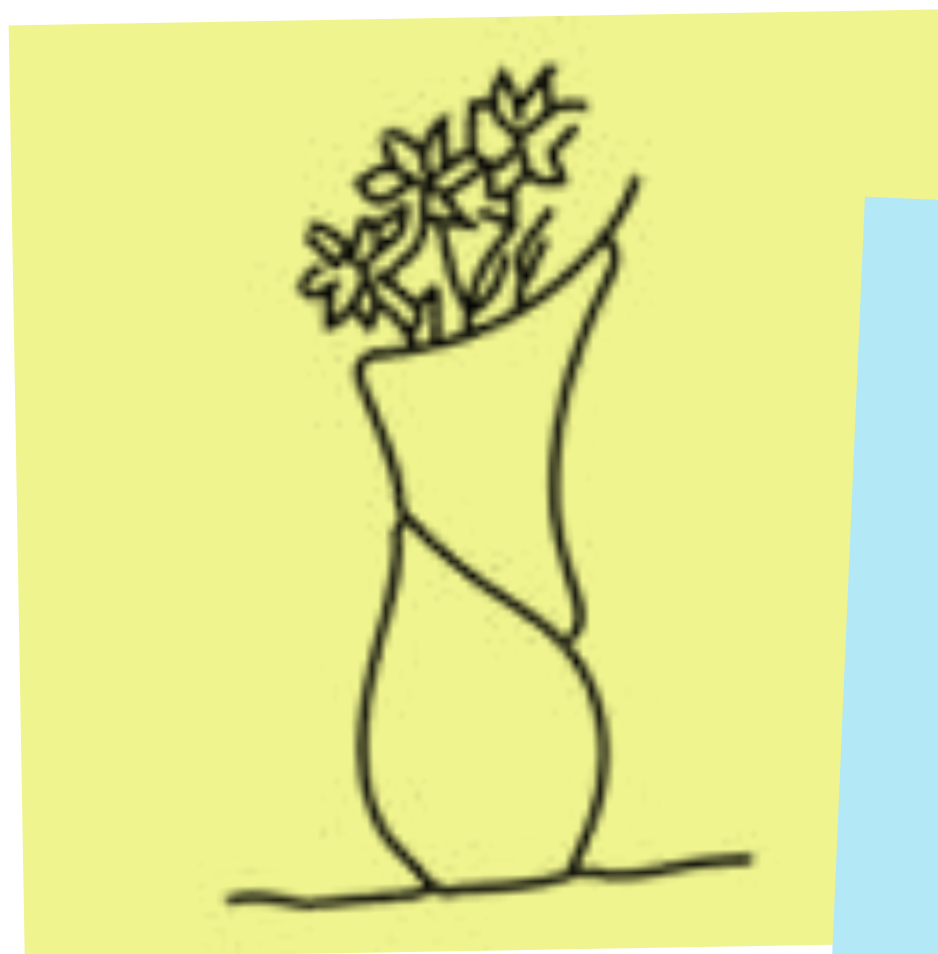




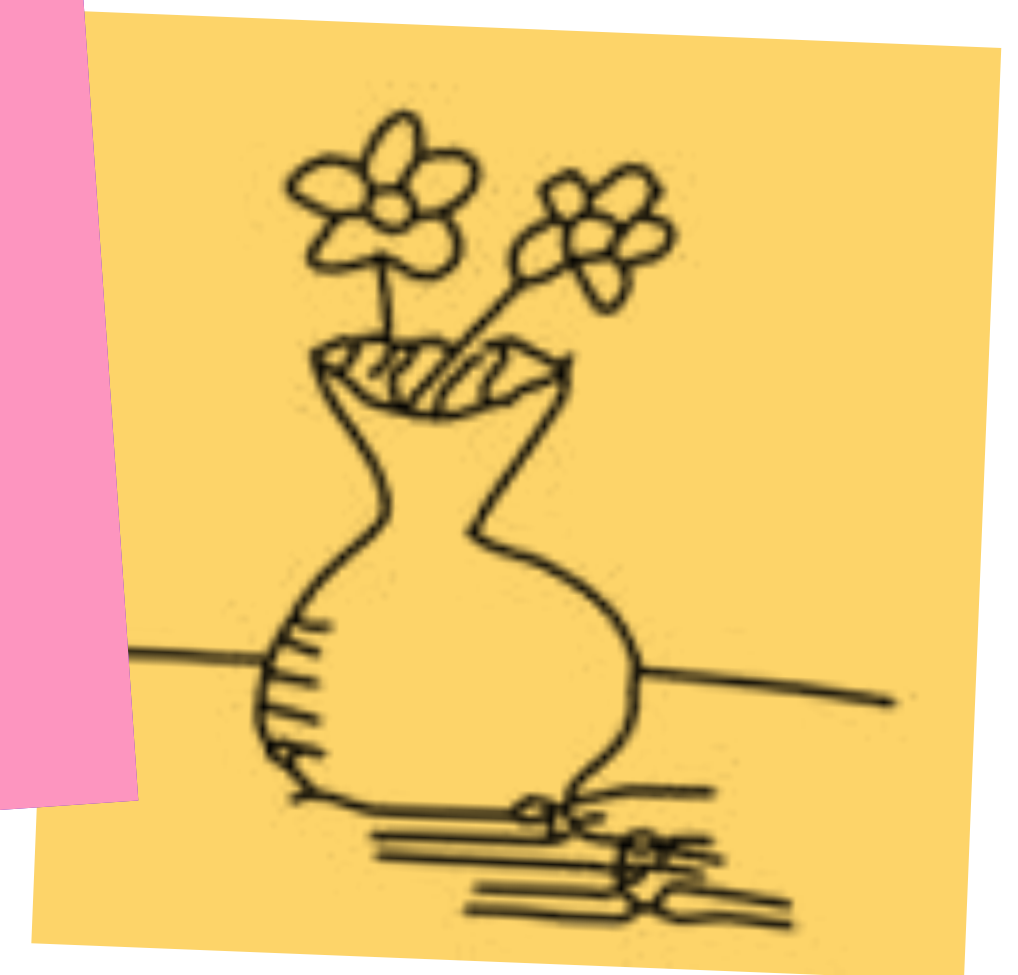


Take 30 seconds to  
**Design a vase**

Are these vases **similar** to yours?



The prompt **design a vase** was too narrow for innovation and creativity to flourish, which is a common problem in the enterprise world.



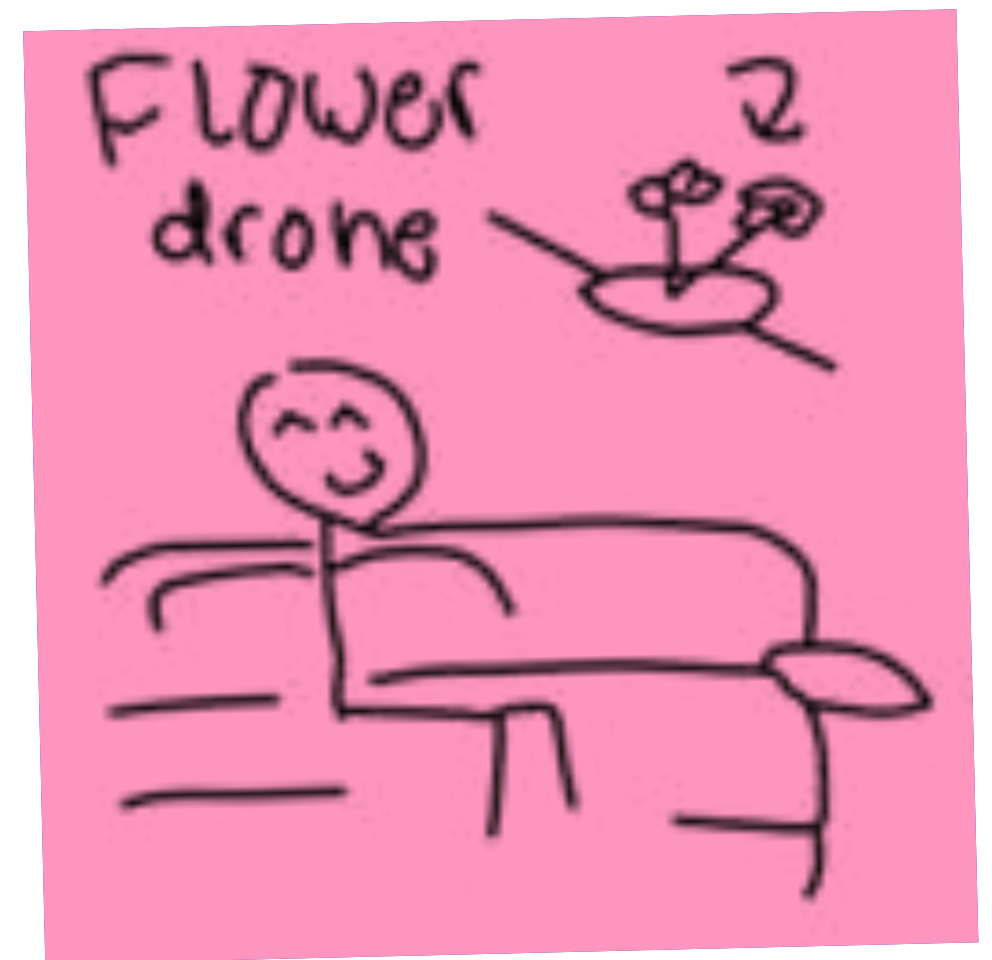
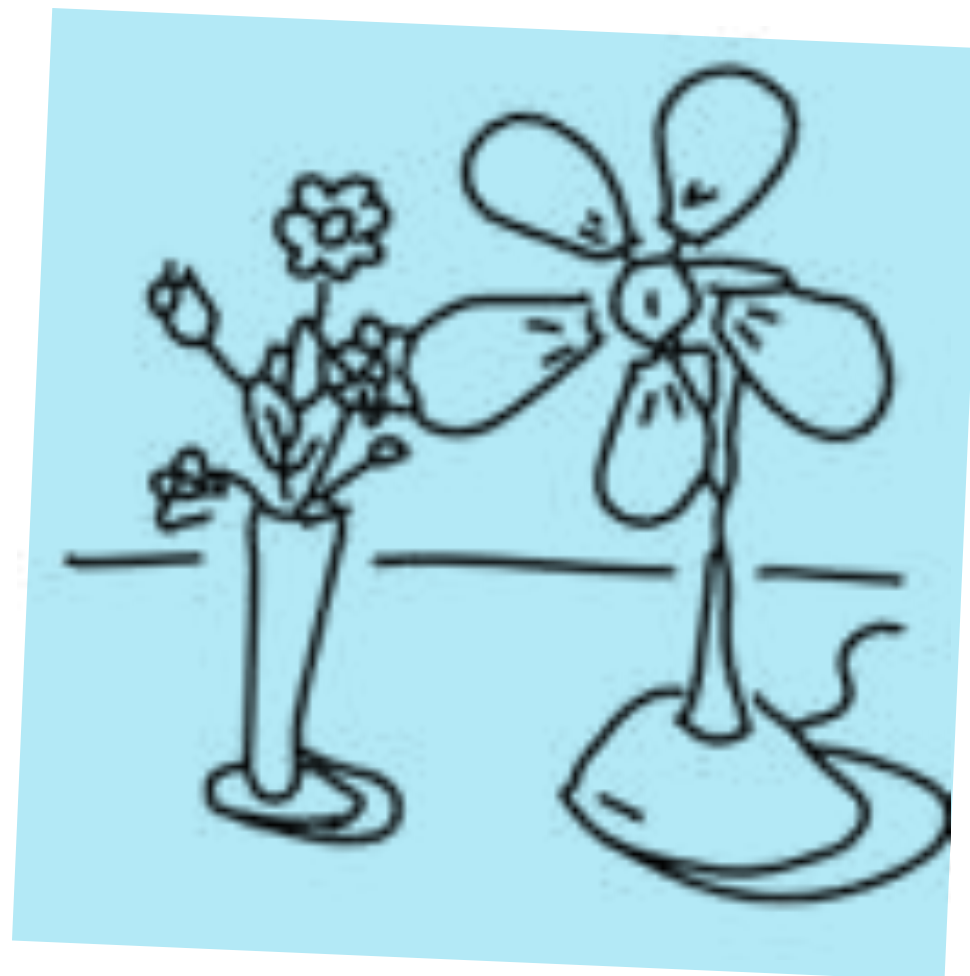
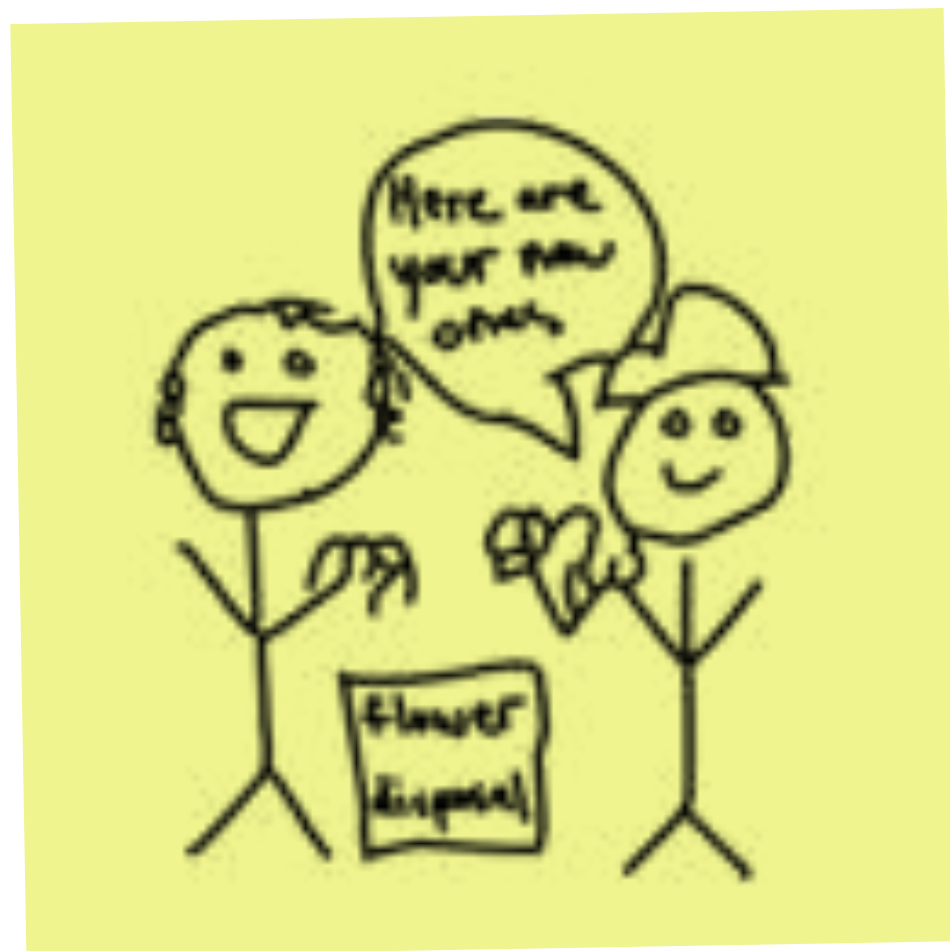


**Why** would someone buy a vase?

**What purpose** does it serve?

**A vase is only one way** to enjoy flowers...

Take 2 minutes to  
**Design a better way for people  
to enjoy flowers in their home**





**a better way to enjoy flowers in your home**

**a better way to choose an insurance plan**

**a better way to develop a new application**



**a better way to analyze data**

**a better way to **troubleshoot an error****

**a better way to structure our work**

**“ Design thinking is a way of finding human needs and creating new solutions using the tools and mindsets of design practitioners. When we use the term ‘design’ alone, most people ask what we think about their curtains or where we bought our glasses. But a ‘design thinking approach’ means more than just paying attention to aesthetics or developing physical products. Design thinking is a methodology. Using it, we can address a wide variety of personal, social, and business challenges in creative new ways.**

**— David Kelley, IDEO founder + Tom Kelley, Partner**







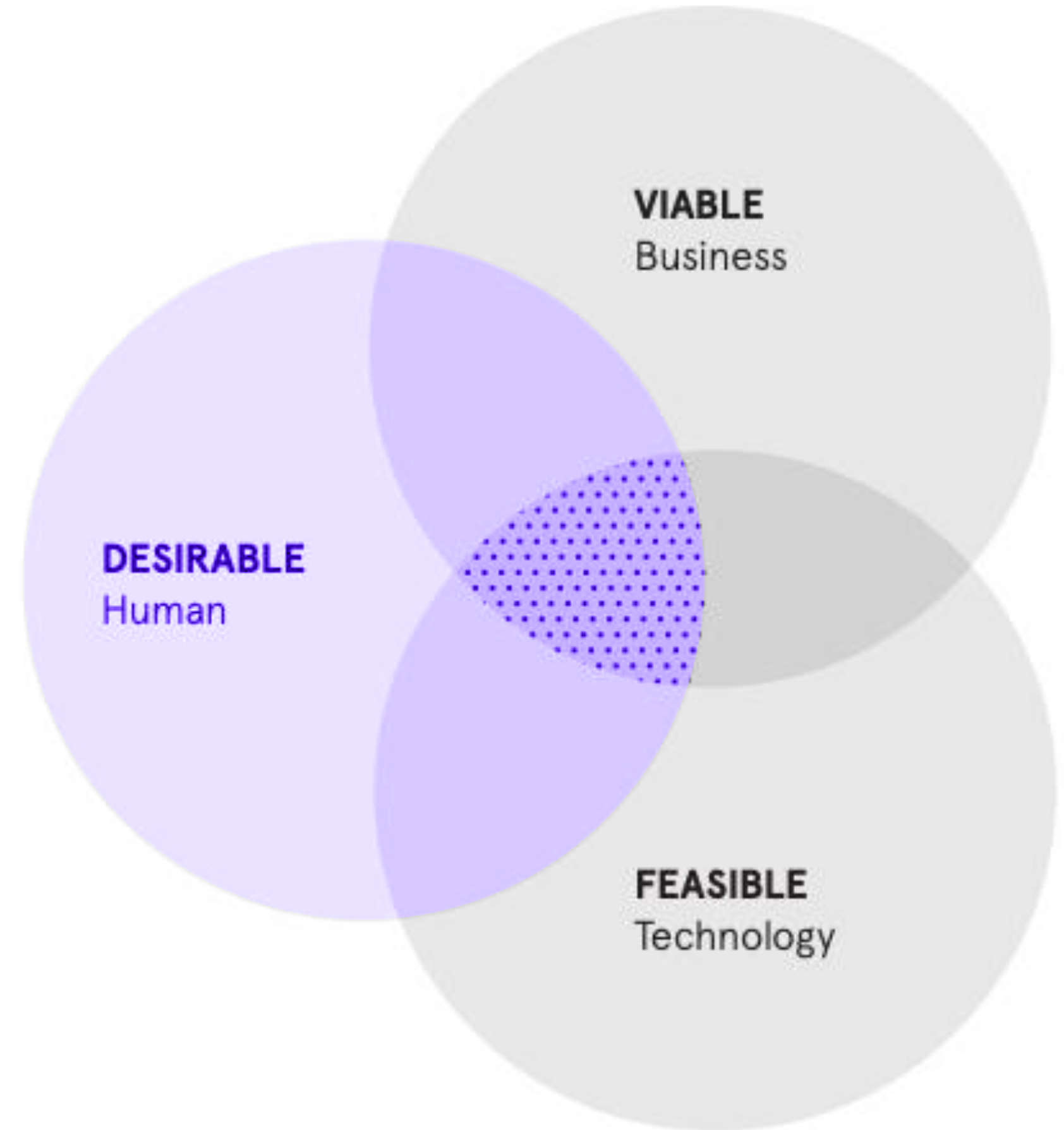
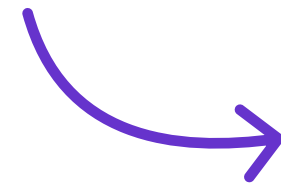
We adopt a **beginner's mind** with the intent to **remain open and curious**, to **assume nothing**, and to **see ambiguity as an opportunity**

**Don't judge.  
Question everything.  
Be truly curious.  
Find patterns.  
Listen. Really!**

## IDEO Framework

# Create Real Impact

Start here





**Empathize**

**Define**

**Ideate**

**Prototype**

**Test**





## **Empathize**

Empathy is the foundation of human-centered design. The problems you're trying to solve are not necessarily your own, they're those of particular users. Build empathy for your users by learning their needs and what they value.

### **Observe**

View users and their behavior in the context of their lives.

### **Engage**

Interview and interact with users through scheduled time and informal encounters.

### **Immerse**

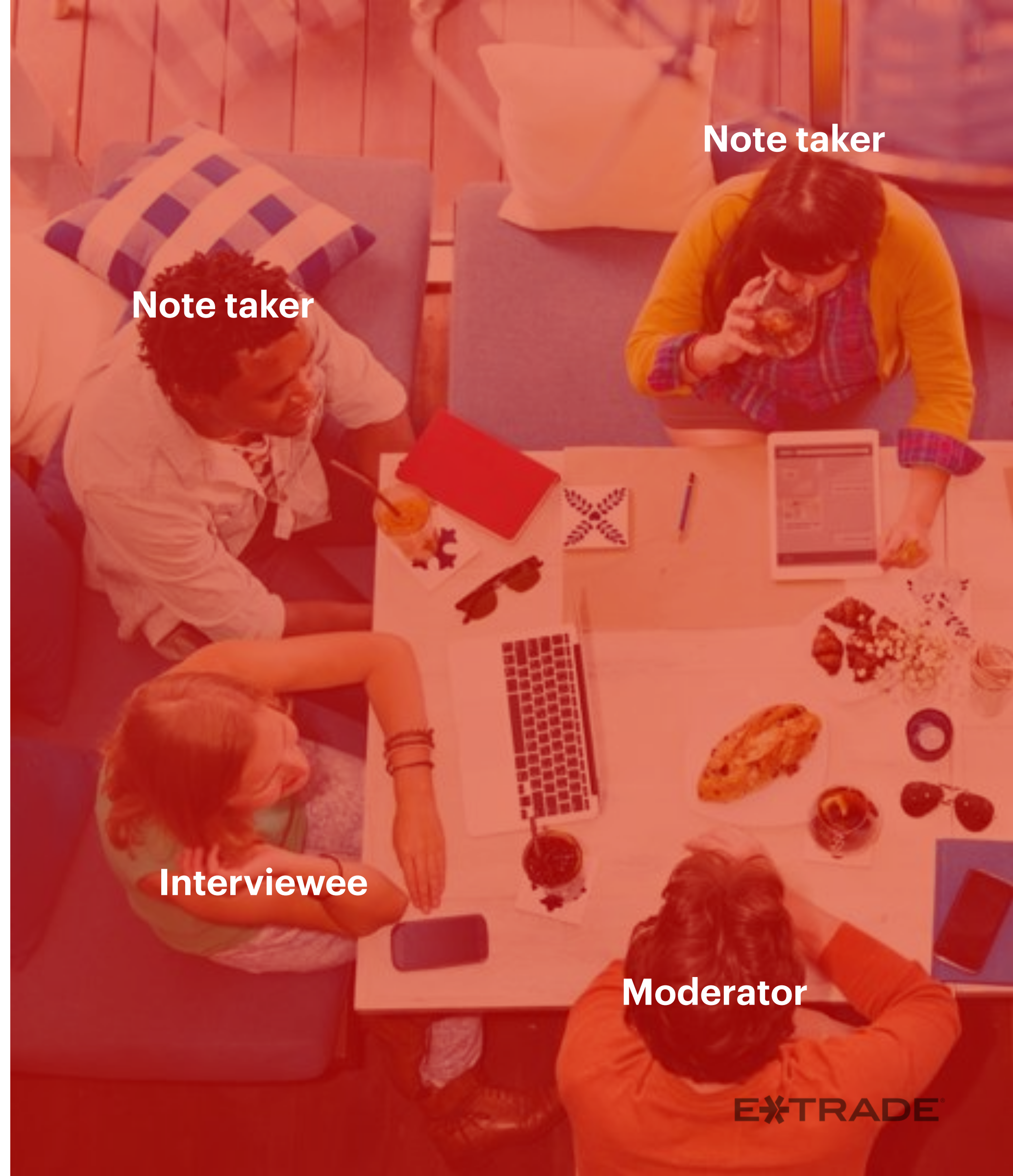
Wear your users' shoes and experience what they experience.



## How do we empathize?

### Interviews

Understand the needs, wants, and desires of the people you're designing for. Talk to them. Observe their behavior. Continually ask "Why?" to get to the root of the problem. With every why, we dig deeper to truly understand the problem at hand.



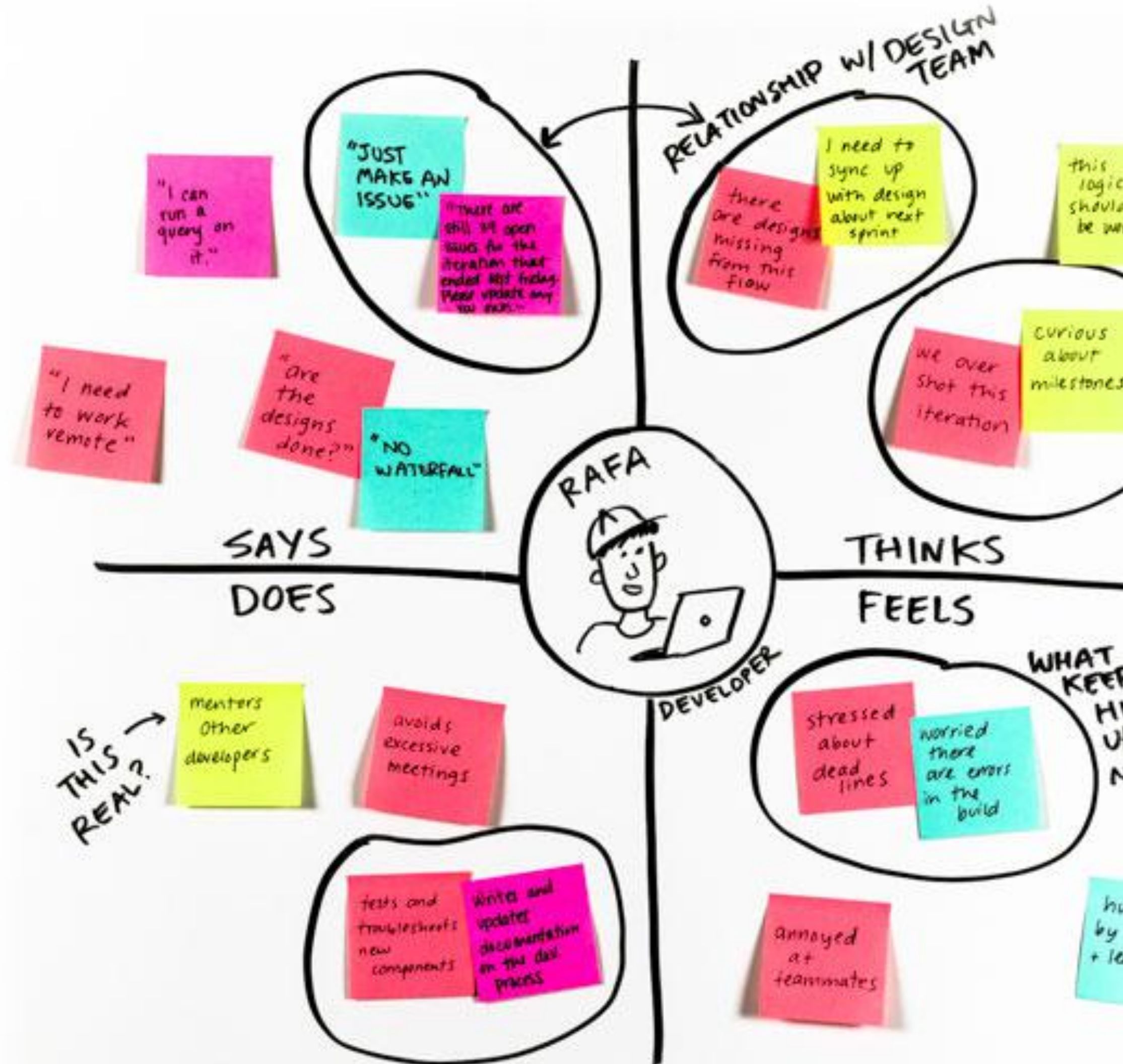




# How do we empathize?

## Empathy mapping

Empathy maps help us visualize user attitudes and behaviors. They help teams align on a deep understanding of end users. Place your user at the center. What do they say, think, do, and feel? Start to notice patterns and make connections.







## How do we empathize?

### Analogous empathy

Look outside your organization and industry for inspiration. Take a deep dive into other industries with similar challenges to consider a fresh perspective on how to think about your users' problems.

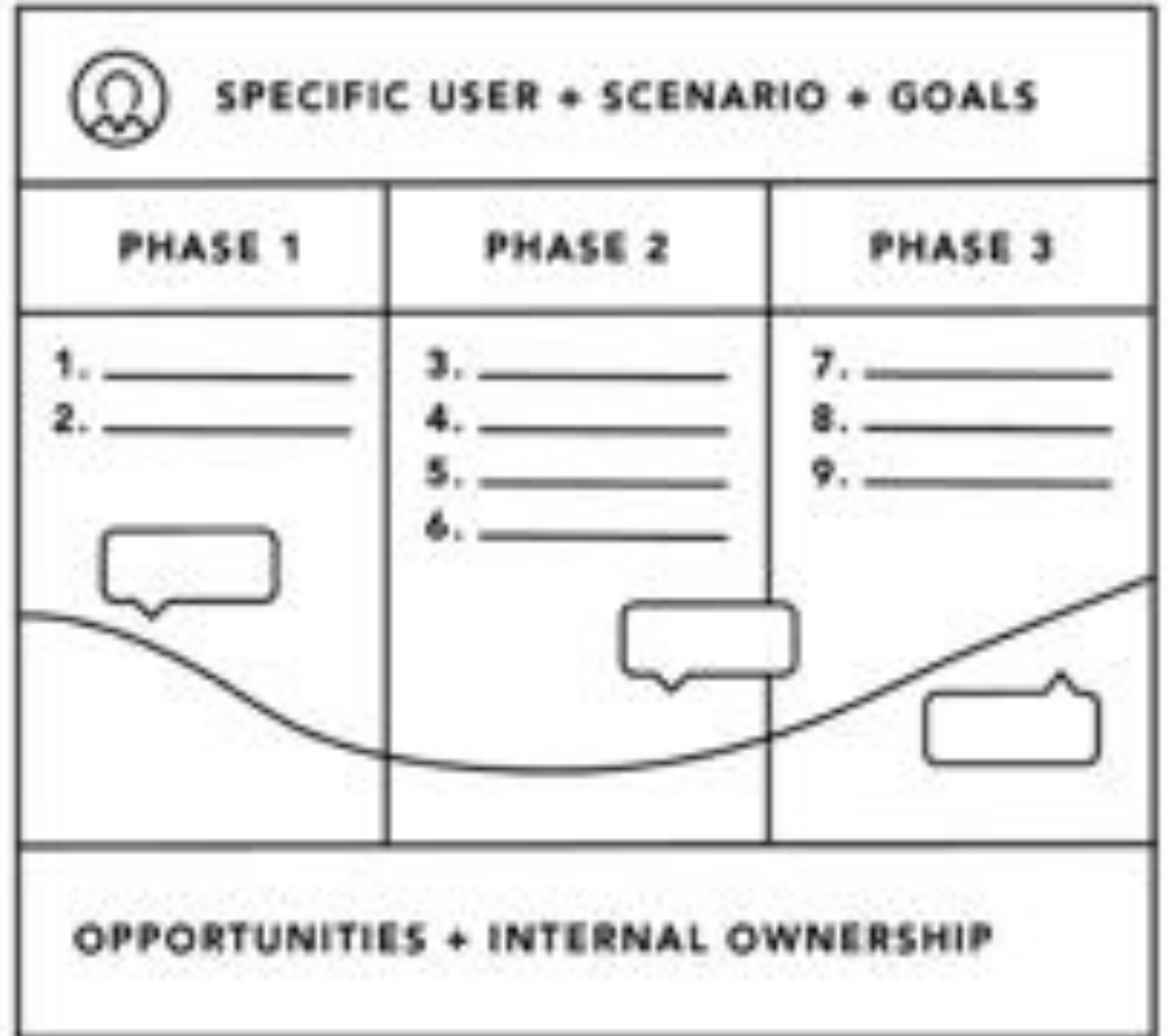




## How do we empathize?

### Journey mapping

A journey map is a visualization of the process that a person goes through in order to accomplish a goal. Journey maps are great to think about steps and milestones systematically, and they are a useful tool to help align your team.

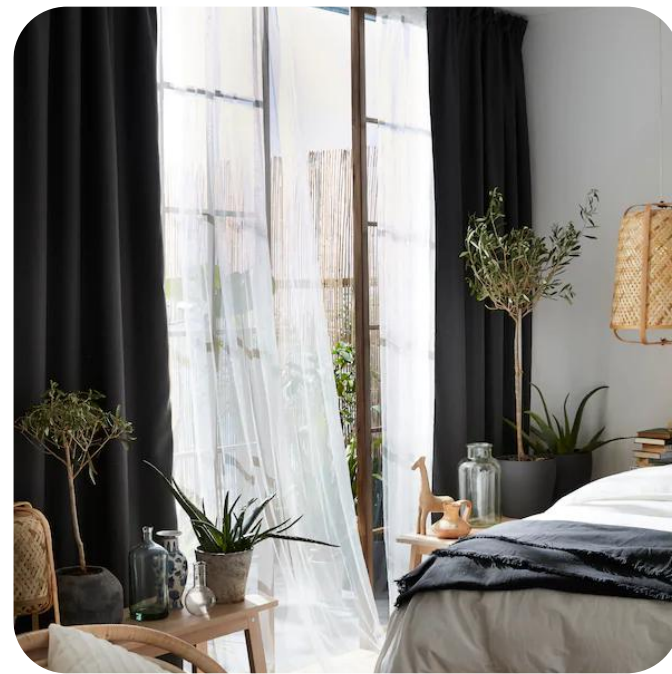


nngroup.com





# Observing a morning routine



**Empathize**

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## Define

Based on your understanding of users, come up with an actionable problem statement. Unpack your empathy findings into needs and insights and figure out the scope of your project to solve a meaningful challenge. Be sure to keep your users at the center.

### Actionable North Star

On complex projects, things don't always go as planned. With all of the uncertainties, how can a team stay true to the project's intent? This is why it is important to have a North Star to help guide you and your team.



## How do we define?

### Write actionable statements that act as your North Star

These statements of intent are written as user outcomes. They tell you where to go — not how to do it. These are not implementation details. Make sure your statements are open enough to generate lots of possibilities. Who are your users? What do they need to do? Why does it matter?







## How do we define?

**WHO**



needs a way to

**WHAT**



so that

**WOW**



**Who are our users?**

**What is the need they are trying to meet?**

**How will we differentiate from competitors and delight users?**



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## Ideate

The ideation phase is where we go wide and generate lots of radical design alternatives. Explore a wide solution space — the goal is a large quantity of ideas as well as a broad diversity.

**Harness the power of diverse perspectives on your team**

**Step beyond obvious solutions and drive innovation**

**Uncover unexpected areas of exploration**

**Don't start to evaluate ideas in terms of feasibility or viability**



## How do we ideate?

### Brainstorming

Amp up the generative part of your brain and turn down the evaluative part. Come up with as many ideas as you can! Gather in front of a board — in person or virtually — and spend 15 to 30 minutes in brainstorm mode. Have each person share their ideas out loud and put them on the board. Capture every idea, no matter how small it may be. Draw pictures to help explain your idea.







## How do we ideate?

### Brainstorm selection

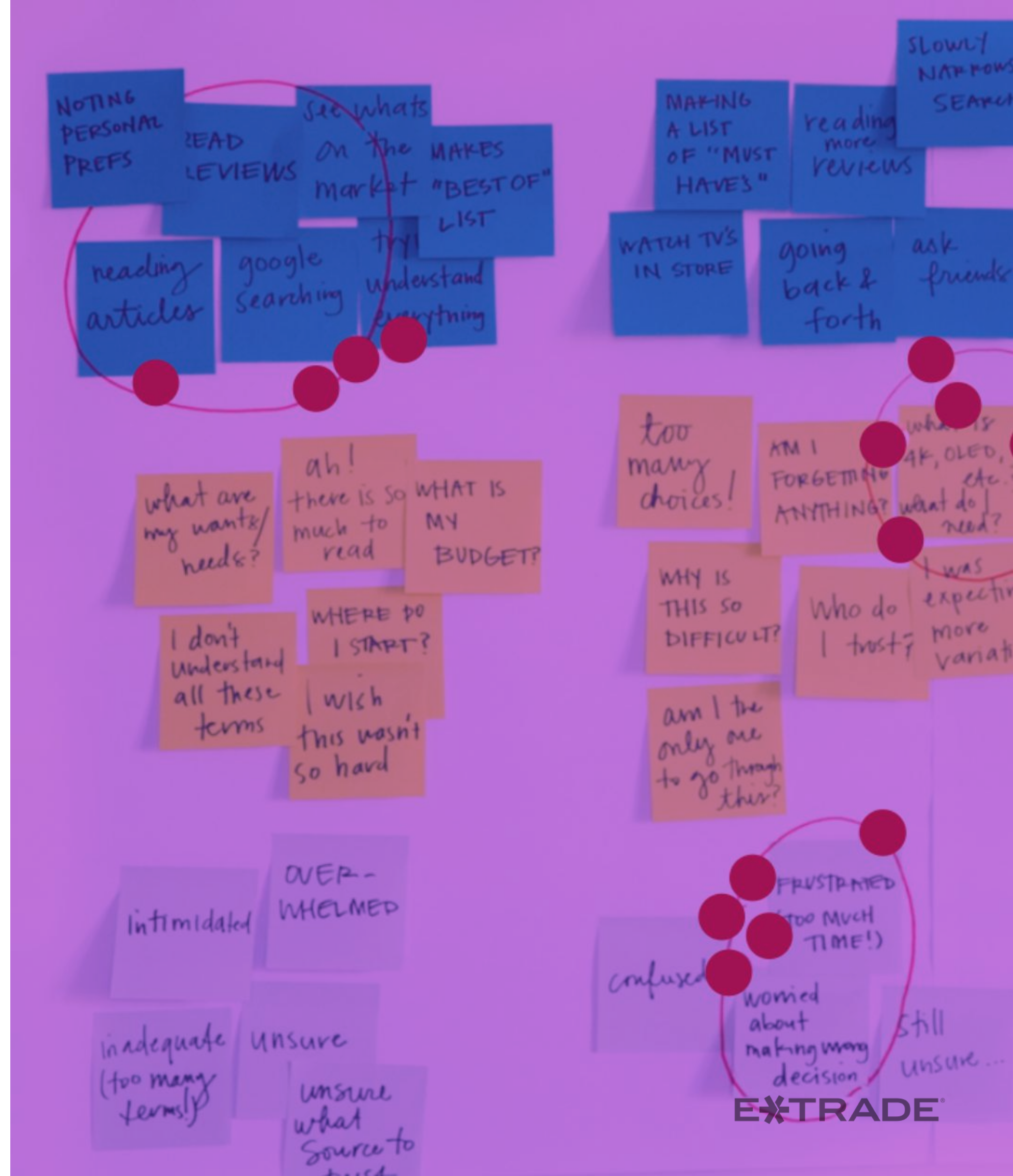
Now you have a bunch of ideas...the hard part is knowing which ideas to act on and bring into the prototyping phase. Don't pick just one. Choose a range. Don't settle on safe choices. Hang onto those ideas that excite your team.

### Post-it voting / Dot voting

Each team member gets three votes and the post-its with the most marks get selected.

### Four categories

Elect one or two ideas within each category: the rational choice, the most likely to delight, the darling, and the long shot.







## How do we ideate?

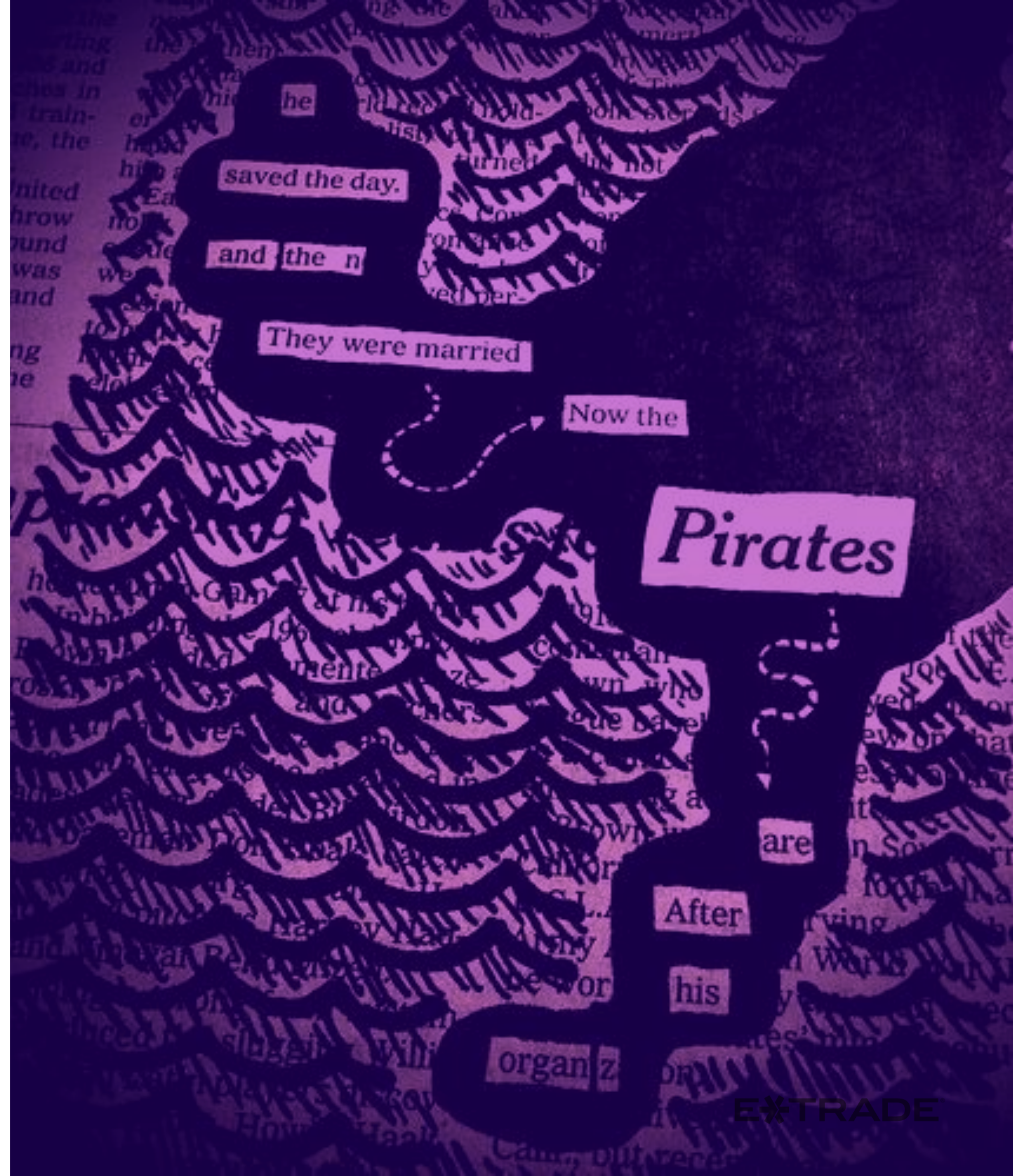
### Impose constraints

This seems like it would be the exact opposite of what we are trying to do in the ideation phase, however imposing constraints often helps our brains generate more ideas. Let's try it:

*Think of as many silver things as you can in 10 seconds.*

*Think of silver things in your kitchen.*

Which one sparked more ideas?





**BROWNS 28, TITANS 28**

Tennessee	0	0	7	7-14
Cleveland	14	7	0	7-28

RUSHING—Tennessee, McCluster 10-88, Barkley 12-42, Mariota 3-19, West 3-10, Fowler 1-3, Douglas 1-(minus 6), Cleveland, Crowell 15-72, Johnson Jr. 12-43, Manziel 3-1

PASSING—Tennessee, Mariota 21-30-257, Cleveland, Manziel 8-15-0-172

RECEIVING—Tennessee, Fasano 5-84, Coffman 4-42, McCluster 4-26, Hunter 2-34, Wright 2-17, Fowler 1-19, Green-Beckham 1-13, Stevens 1-13, Douglas 1-9, Cleveland, Benjamin 3-115, Hawkins 3-43, Barnidge 1-17, Gabriel 1-(minus 3)

**REDSKINS 24, RAMS 10**

St. Louis	0	0	10	0-17
Washington	10	7	0	7-24

RUSHING—St. Louis, Austin 4-40, Mason 7-26, Foles 1-1, Cunningham 1-0, Washington, Jones 19-123, Morris 18-59

PASSING—St. Louis, Foles 17-32-0-150, Washington, Cousins 23-27-0-203

RECEIVING—St. Louis, Cook 5-47, Cunningham 4-27, Britt 2-44, Mason 2-4, Kendrick 1-15, Givens 1-7, Austin 1-6, Bailey 1-0, Washington, Reed 6-82, Garcon 6-23, Grant 3-45, Jones 3-23, Morris 2-13, Thompson 1-10, Crowder 1-7, Roberts 1-0

**VIKINGS 26, LIONS 16**

Detroit	0	10	0	6-16
Minnesota	10	6	0	3-26

RUSHING—Minnesota, Peterson 4-20, Abdullah 4-2, Burton 1-2, Williams 1-13, Wright 1-23, Johnson 2-8, McKinnon 1-0

PASSING—Minnesota, Stafford 32-57-380, Goff 14-15-0-157, Johnson 1-0, Riddick 1-0, Abdullah 1-0, Wallace 1-0, Wynn 1-0

**TEXANS 17**

0	0	7	7-17
0	10	7	7-24

RUSHING—Folk 14-38, Grimes 10-76, Stewart 17-62, Baker 1-3

PASSING—Mallett 27-58-1-244, Mallett 18-37-1-195

RECEIVING—Grimes 6-40, Shortt 5-53, Washington 3-63, Folk 2-9, Fedorowicz 1-19, Blue 1-4, Carolina, Olsen 4-41, Brown 3-57, Tolbert 1-15, Cotchery 1-11, Stewart

GOALS—Carolina, Gano 53

**BILLS 32**

14	10	13	3-40
7	6	0	19-32

RUSHING—England 7-40, Blount 2-4, Amendola 1-3, Brady 3-(minus 4), Buffalo, Taylor 5-13, Williams 6-21

slides his feet along with the receiver, mirroring his motions, trying to stay square. The biggest

Williams surmises that his grades played a role. Coming out

Williams, who had been promoted from the Jets' practice squad five days before making his debut in a Week 9 loss at Kansas City. McCutcheon noticed that Williams, who started in the Jets' final eight games in 2014 after winning a competition held by Coach Rex Ryan to determine playing time, tended not to make a lot of mistakes that rookies



great success

against

time

MARKS 'A LOT'

the far side of the awning, Williams' quickness to swivel his head led to a touchdown that was crucial to the Jets' 31-10 victory.

Even after the starting cornerback Antonio Cromartie was out with a sprained left knee, Jets' coaches felt comfortable playing a cover-zero defense on the play — no safety help from the cornerbacks — because of their faith in Williams.

"Depending on what you're seeing, sometimes you have to teach certain things," Revis said. "He comes out with nothing and does his job." Williams earned the credit

(AP)

the only person with a 1-0 win at

was not a valuable player. Earlier this year

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## Prototype

Prototyping gets ideas out of your head and into the world. We're able to get a feel for the idea and get feedback in order to make the idea better. They are most successful when people on the team, users, stakeholders, and others can experience and interact with them. Prototypes spark conversation and help shape truly successful solutions.

### Empathy gaining

Prototyping deepens your understanding of users

### Exploration

Create multiple concepts to test in parallel

### Inspiration

Inspire others by showcasing your vision





## How do we prototype?

### Who prototypes?

Everyone — you, your team, your stakeholders— should participate in prototyping. Even your users can help co-create prototypes at this stage.

### Different levels of fidelity

Prototypes can be low, medium, or high fidelity. Low fidelity prototypes are rough, low cost, and quick to build. Medium fidelity ones are slightly more detailed but still are a rough representation of the final idea. High fidelity prototypes are the most detailed and time-consuming.





# OXO Good Grips









BICYCLE  
HANDLE

FIRST PROTOTYPES  
OF FIN SHAPES

FINAL  
FINS











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## Test

Testing is your chance to gather feedback, refine solutions, and continue to learn about your users. Testing is iterative, and low fidelity prototypes are great for gathering feedback early and often — before dedicating a ton of time and resources into building something.

### Test to refine your solution

Test ideas early and often to make sure solutions bring value to your users.

### Learn more about your user

Continue to build empathy through observation. Show multiple ideas to help build a full picture of your users and their expectations.

### Revisit your problem / opportunity statement

Don't be afraid to reframe your point of view to make sure you're solving the right problem.





## How do we test?

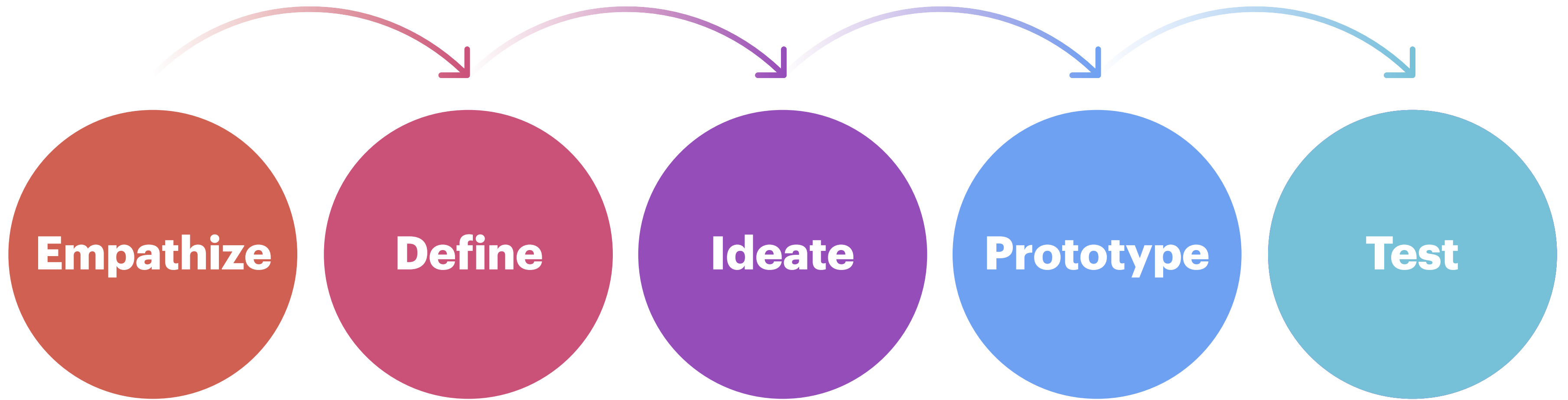
### Testing with users

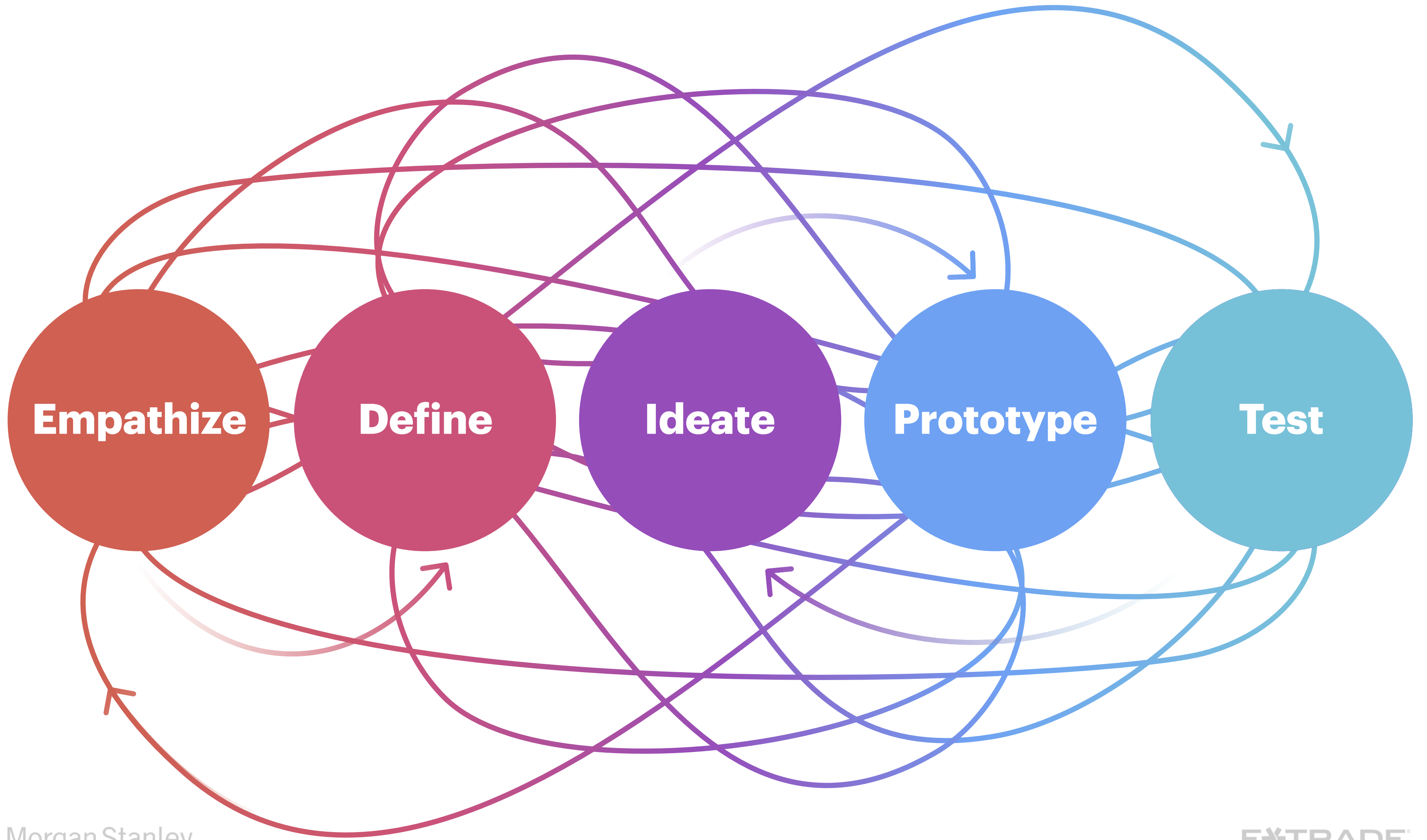
Testing is a great way to continue to build empathy with your users and refine your solutions. Let your user experience the prototype — only give them the basic context they need to let them explore.

Have users talk through their experience; actively observe what they say and do. Don't course correct, let users find their way on their own. Follow up with questions: "Can you show me why this wouldn't work for you? How does this make you feel? What would you expect to happen once you click there?" Continually ask "Why?" to understand the true needs of your users.









Design Thinking is a  
**framework**, not a process!



by **anyway pharmacy**





Line  
Starts  
Here  
↓









## A better, simpler pharmacy



We'll sort your meds  
by date and time



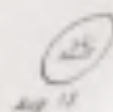
Deliver them to  
you every month



And include any other  
pharmacy items



8:00 AM  
Monday



- 1 ASPIRIN EC 81MG
- 1 GLIPIZIDE XL 5MG
- 1 LISINAPRIL 20MG
- 1 METFORMIN 1000MG

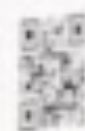
PillPack



JORDAN SMITH

Aug 1 → Aug 30

Roll 1 of 1



2 Prescriptions

- Metformin 1000mg Tablets, Qty 30** Take 1 tablet by mouth daily  
RX#04201134, BY JOHN MILLER
- Lisinopril 20mg Tablets, Qty 30** Take 1 tablet by mouth daily  
RX#06306443, BY JOHN MILLER
- Glipizide XL 5mg Tablets, Qty 30** Take 1 tablet by mouth in the morning with breakfast.  
RX#06306471, BY CARLA WHITE

3 Non-Prescriptions


- Fish Oil 1000mg Capsules, Qty 30**
- Melatonin 5mg Tablets, Qty 30**
- Aspirin EC 81mg Tablets, Qty 30**

Jordan Smith  
121 Beach Street,  
Suite 4  
Seymour, MA 02141

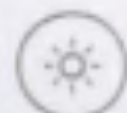
PillPack LLC  
100 Commercial Street  
Riverside, MA 02783-1118  
855-743-5729  
064 No. 1942-1833

Dispensed by PillPack on October 21, 2021. ©2021 PillPack, Inc. All rights reserved. Please refer to the patient information leaflet for complete details. See your pharmacist for more information.

1 LISINAPRIL 20MG  
1 METFORMIN 1000MG


PillPack 

1:00 PM  
Saturday



Nov 14

1 CINNAMON/CHROMIUM 500MG  
2 FISH OIL 500MG  
1 VITAMIN B COMPLEX

PillPack 

“ PillPack has revealed the massive potential of combining design thinking and the drug market... This simple innovation makes life easier for seniors who can be a bit forgetful and have difficulty with bottles... Younger patients with active lifestyles and chronic diseases can just pull as many packets as they need and go. All told, PillPack means you'll never have to help your grandma sort pills into a tacky day-of-the-week organizer again.

—  
Wired





“ I use PillPack because it saves me time, money, and headaches! Before PillPack, I was constantly counting pills, calling doctors last minute, and visiting three different pharmacies. Now that my meds arrive at my door, I have a life again!

—  
Cynthia  
Age 42

8:00 AM  
Monday



Aug 13

- 1 ASPIRIN EC 81MG
- 1 GLIPIZIDE XL 5MG
- 1 LISINOPRIL 20MG
- 1 METFORMIN 1000MG

PillPack





**Design a better  
medication bottle**



**Design a better  
pharmacy**





**Design a better  
pill box**



Design a better  
**way to obtain and  
take medication**

# Design Thinking Resources

## COURSES

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**IBM** Enterprise Design Thinking: Practitioner

[www.ibm.com/design/thinking/page/courses/Practitioner](http://www.ibm.com/design/thinking/page/courses/Practitioner)

**IDEO** Design Thinking Courses

[www.ideo.com/collections/design-thinking-courses](http://www.ideo.com/collections/design-thinking-courses)

## VIDEOS

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**InVision** The Loop

[www.invisionapp.com/enterprise/ibm-design-thinking](http://www.invisionapp.com/enterprise/ibm-design-thinking)

**Khoj Lab** Myths of Innovation

[www.khojlab.com/narratives](http://www.khojlab.com/narratives)

## MATERIAL

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**Stanford** d.school

[dschool.stanford.edu/resources/get-started-with-design](http://dschool.stanford.edu/resources/get-started-with-design)

**NNG** Nielsen Norman Group

[www.nngroup.com/](http://www.nngroup.com/)

**IDEO** Design Thinking

[designthinking.ideo.com/](http://designthinking.ideo.com/)

**Innovation is not ideation** Medium series

PART 1 of 6

[shilpikumar.medium.com/innovation-is-not-ideation-its-a-process-that-enables-ideas-to-flow-towards-impact-d3c661d04ba5](https://shilpikumar.medium.com/innovation-is-not-ideation-its-a-process-that-enables-ideas-to-flow-towards-impact-d3c661d04ba5)

All 6 parts available on Medium at the end of each post