

# **IBM Design Thinking**

**Baruch College  
March 2, 2018**

Cindy  
IBM UX/UI Designer



Artour  
IBM Executive Creative Director



Maria  
IBM Consultant-  
Communications Sector



# 1

Agenda	Time	Duration	
<b>Welcome</b>	10:00 AM	5	Stan
<b>Introduction to IBM Design Thinking</b> <ul style="list-style-type: none"> <li>• Framework Overview</li> </ul>	10:05 AM	30	Artour
<b>Problem Rundown / Intent Statement</b> <ul style="list-style-type: none"> <li>• Review existing statements</li> <li>• Refine in teams</li> </ul>	10:35 AM	30 (5/15/10)	Artour
<b>Stakeholder and Personas Map</b> <ul style="list-style-type: none"> <li>• Create map of stakeholders and personas</li> <li>• Playback and refine</li> </ul>	11:05 AM	30 (5/15/10)	Cindy
<b>As Is Scenario Maps</b>	11:35 AM	10	Artour
<b>Empathy Maps and Needs Statements</b> <ul style="list-style-type: none"> <li>• Create Empathy Map for one selected persona</li> <li>• Create Needs Statement</li> </ul>	11:45 AM	40 (5/10/5/10/10)	Cindy
<b>Lunch Break</b>	12:30	30	all

# 2

Agenda	Time	Duration	
<b>Lunch Break</b>	12:30	30	all
<b>Big Ideas</b> <ul style="list-style-type: none"> <li>• Create Big Idea Vignettes</li> <li>• Prioritize</li> <li>• Playback and refine</li> </ul>	1 PM	35 (5/20/10)	Artour
<b>Hills</b> <ul style="list-style-type: none"> <li>• Write 1-2 Hills</li> <li>• Playback and refine</li> </ul>	1:35 PM	30 (5/15/10)	Cindy
<b>Storyboarding Big Ideas and User Scenarios</b> <ul style="list-style-type: none"> <li>• Storyboard scenario for selected Big Idea(s)</li> <li>• Playback and refine</li> </ul>	2:05 PM	35 (5/25/5)	Cindy
<b>Prototyping and User Feedback</b>	2:40 PM	10	Artour
<b>Wrap-Up</b>	2:50 PM	5	Stan

# What is IBM Design Thinking?



**We'd like to  
show, not tell**



**5**

**Design an alarm clock.**

**5**

**Design a better way for people  
to wake up in the morning.**



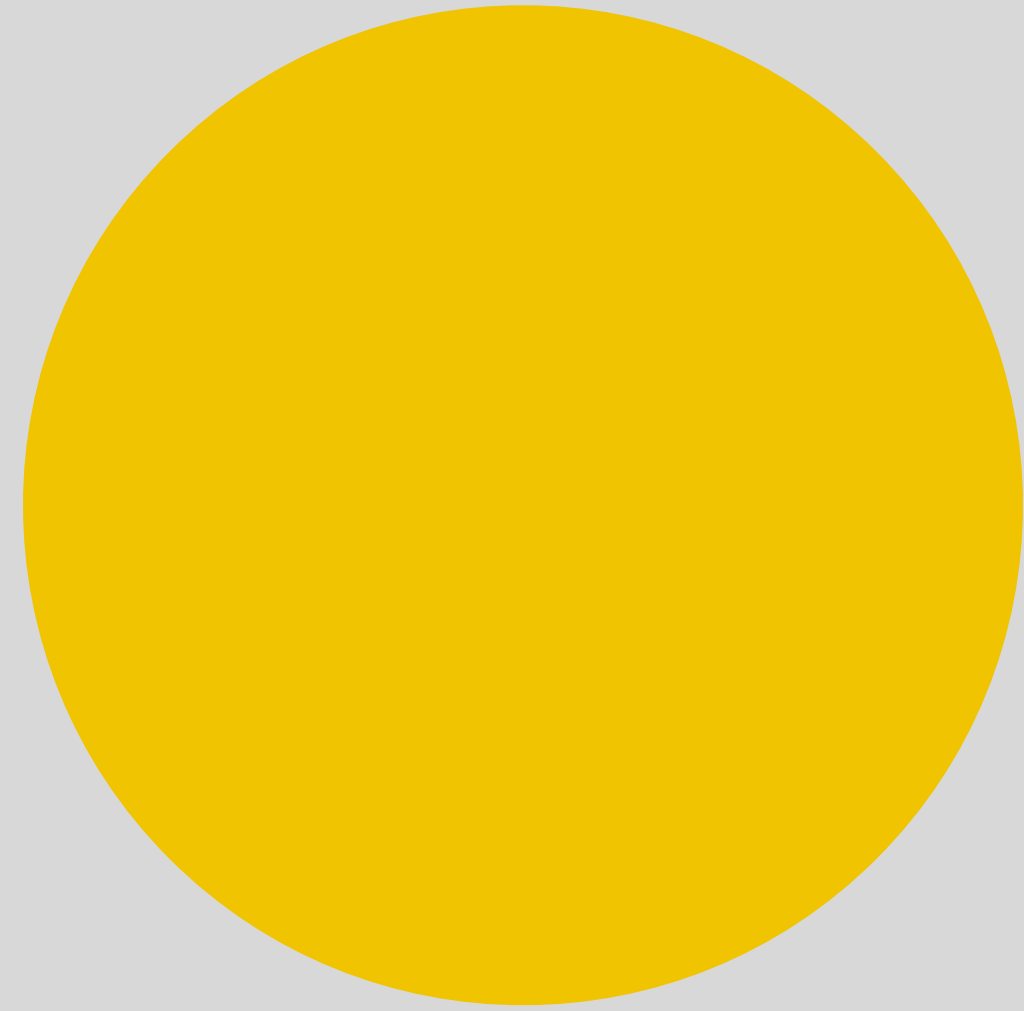
**Design an alarm  
clock**

**Design a better way for  
people to wake up in  
the morning**

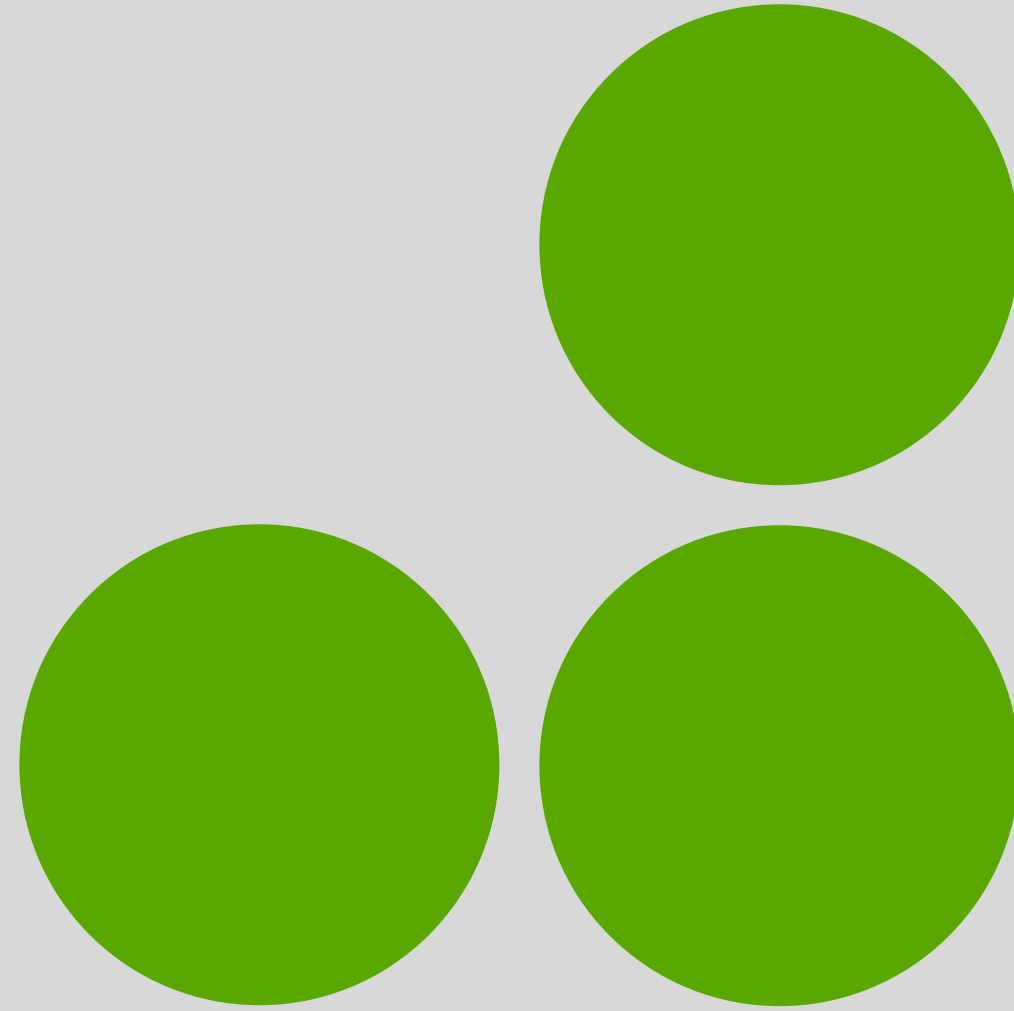


# What did we learn?

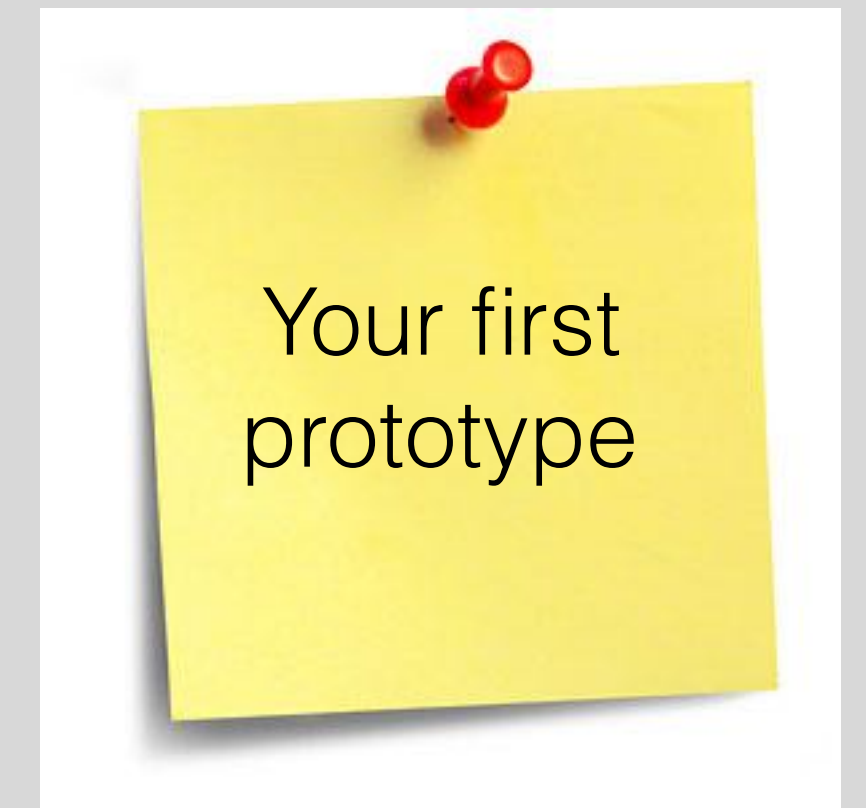
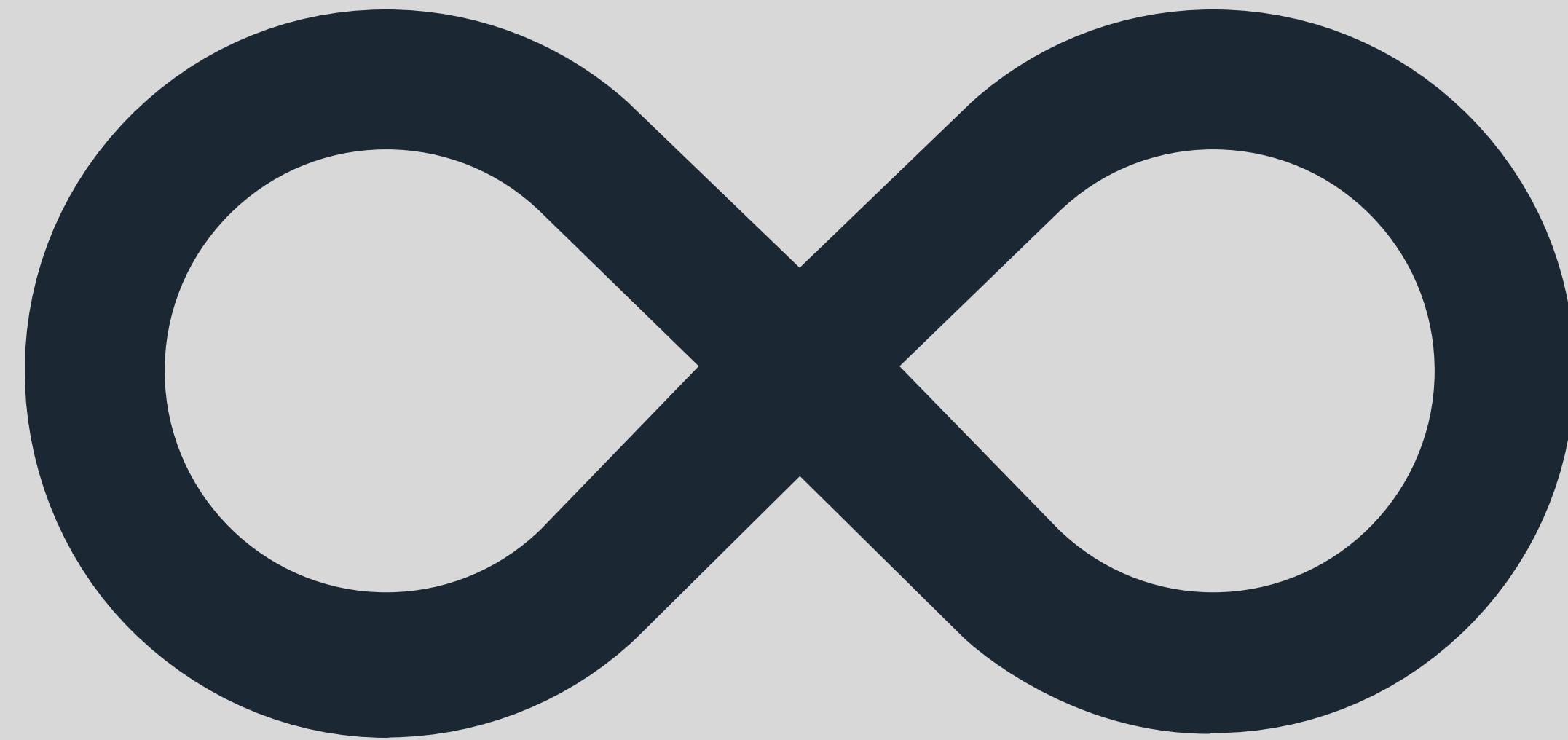




**Focusing on user**  
**leads to more innovative ideas**



**Working in diverse empowered  
teams generates more possibilities**



**Reinventing restlessly** allows  
**us to fail fast and fail cheap**

Okay, so... **what** is  
IBM Design Thinking  
and **why** should we  
practice it?



# IBM Design Thinking is a framework



**IBM Design Thinking is a  
framework helping us get things  
done**





**IBM Design Thinking is a  
framework helping us get things  
done in a way that enables speed**



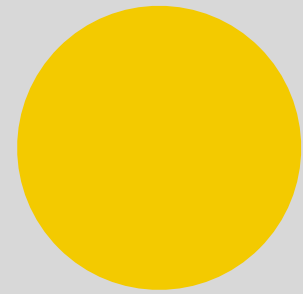
**IBM Design Thinking is a  
framework helping us get things  
done in a way that enables speed,  
constantly delivers new value**



**IBM Design Thinking is a  
framework helping us get things  
done in a way that enables speed,  
constantly delivers new value,  
and ensures minimal risk.**

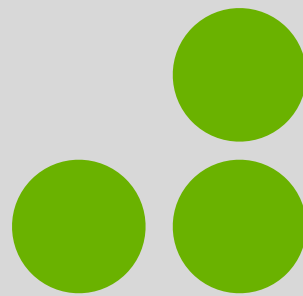


# Speed



**A focus on  
user outcomes**

**We go straight to the truth, which lies  
with our users**



**Diverse  
empowered  
teams**

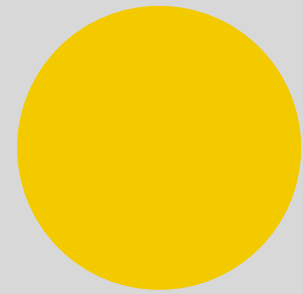
**We move rapidly with the empowered stakeholders,  
users and subject matter experts we surround  
ourselves with**



**Restless  
reinvention**

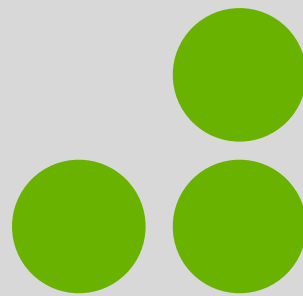
**We treat everything as a prototype, delivering the  
first within a short period of time, then iterating on  
it as quickly as possible**

# New Value



**A focus on  
user outcomes**

**We arrive at fresh solutions rooted in previously undiscovered user problems and opportunities**



**Diverse  
empowered  
teams**

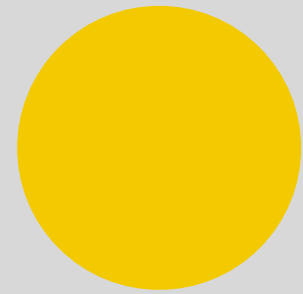
**We pull from the knowledge and experience of the experts around us to inspire imaginative ideas**



**Restless  
reinvention**

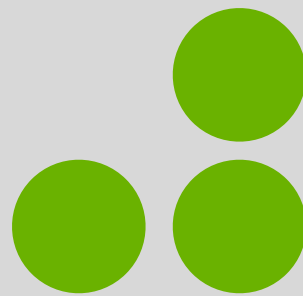
**We learn new insights from every prototype tested, shaping an even stronger next iteration**

# Minimal Risk



**A focus on  
user outcomes**

**We align with reality going in, check against it during, and validate with it coming out**



**Diverse  
empowered  
teams**

**We leverage the expertise of our team to  
avoid costly assumptions and pitfalls**



**Restless  
reinvention**

**We fail fast and fail cheap, always uncommitted to  
a dangerous amount of money, time and resources**

**IBM Design Thinking is a  
framework helping us get things  
done in a way that enables speed,  
constantly delivers new value,  
and ensures minimal risk.**



# GETTING STARTED

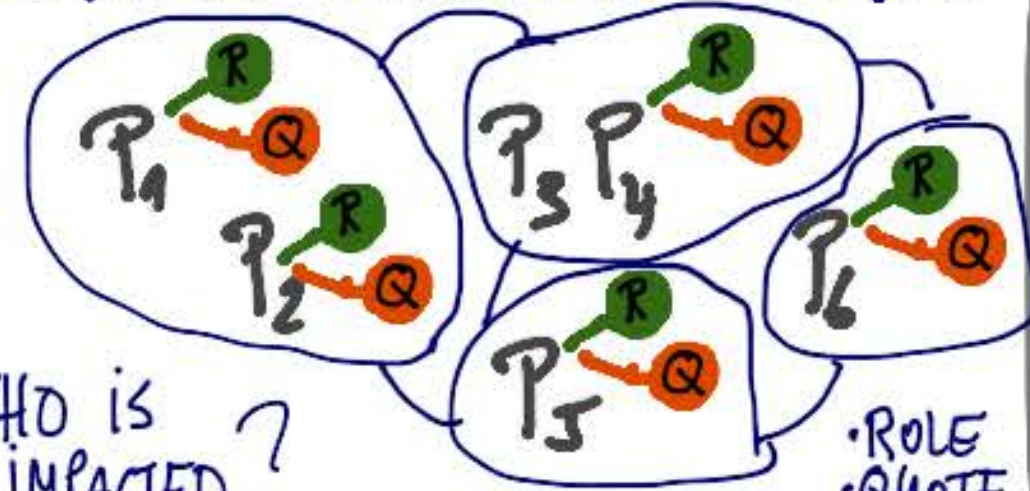


OBSERVE  
REFLECT  
MAKE

**HOPES**  
**FEARS**

KEEP AN EYE  
ON THESE  
THROUGHOUT

# STAKE HOLDER MAP



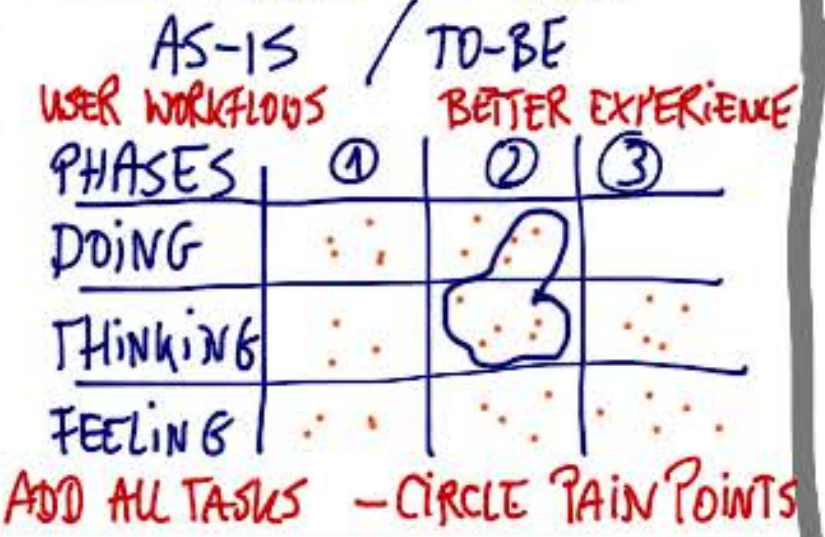
WHO IS  
IMPACTED?

•ROLE  
•QUOTE

# EMPATHY MAP



# SCENARIO MAP



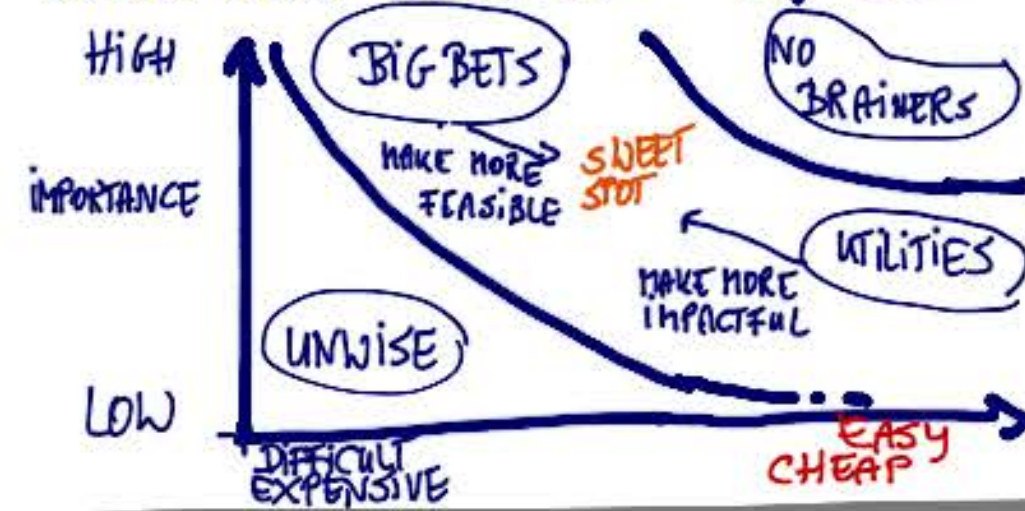
# BIG IDEA VIGNETTES

**TWO STICKY NOTES**



CLUSTER - CONVERGE → PRIORITIZE  
VOTE

# PRIORITIZATION GRID



# NEEDS STATEMENTS

**THE USER** NEEDS A WAY TO  
**DO SOMETHING** SO THAT  
**THEY BENEFIT DIRECTLY**

GO BACK TO PAINPOINTS

# STORY BOARDING



SHARE STORIES - CONVERGE - MASTER STORY

# ASSUMPTIONS / QUESTIONS

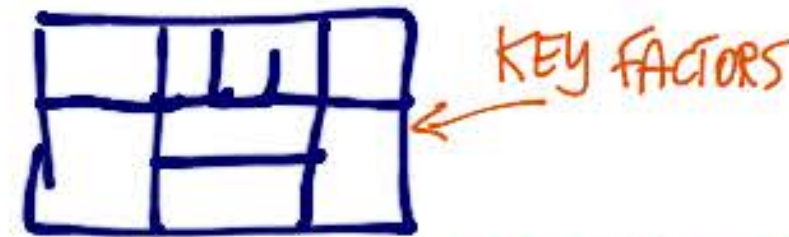


# HILLS

FROM  
STORYBOARD +  
NEED STATEMENTS

- 1 WHO-WHAT-WOW
- 2 WHO-WHAT-WOW
- 3 WHO-WHAT-WOW

# BUSINESS MODEL CANVAS



USER EXPERIENCE - VIABILITY FOR BUSINESS  
DEFINE SOLUTION - TARGET CUSTOMERS

# ELEVATOR PITCH

- PROBLEM TO SOLVE
- TARGET AUDIENCE
- VALUE TO THE USER
- COMPARE W/ COMPETITION
- INITIAL BUSINESS PLAN
- DELIVERABLE



# The Loop



**Observe**

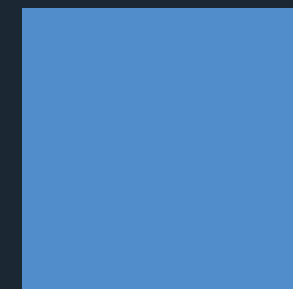
**Reflect**

**Make**

# The Keys Align Us



**Hills align us  
across teams.**



**Playbacks align us  
across time.**

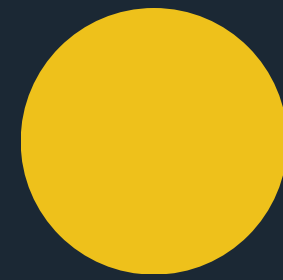


**Sponsor users align  
us with reality.**

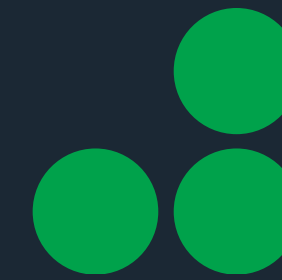


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# Principles



A focus on  
user outcomes



Diverse  
empowered teams



Restless  
reinvention

---

# The Loop



Observe

Reflect

Make

---

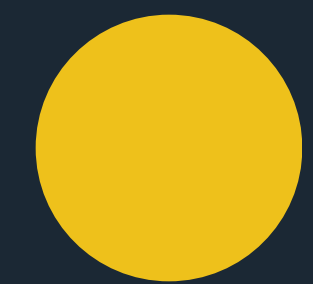
# The Keys align us.



Hills

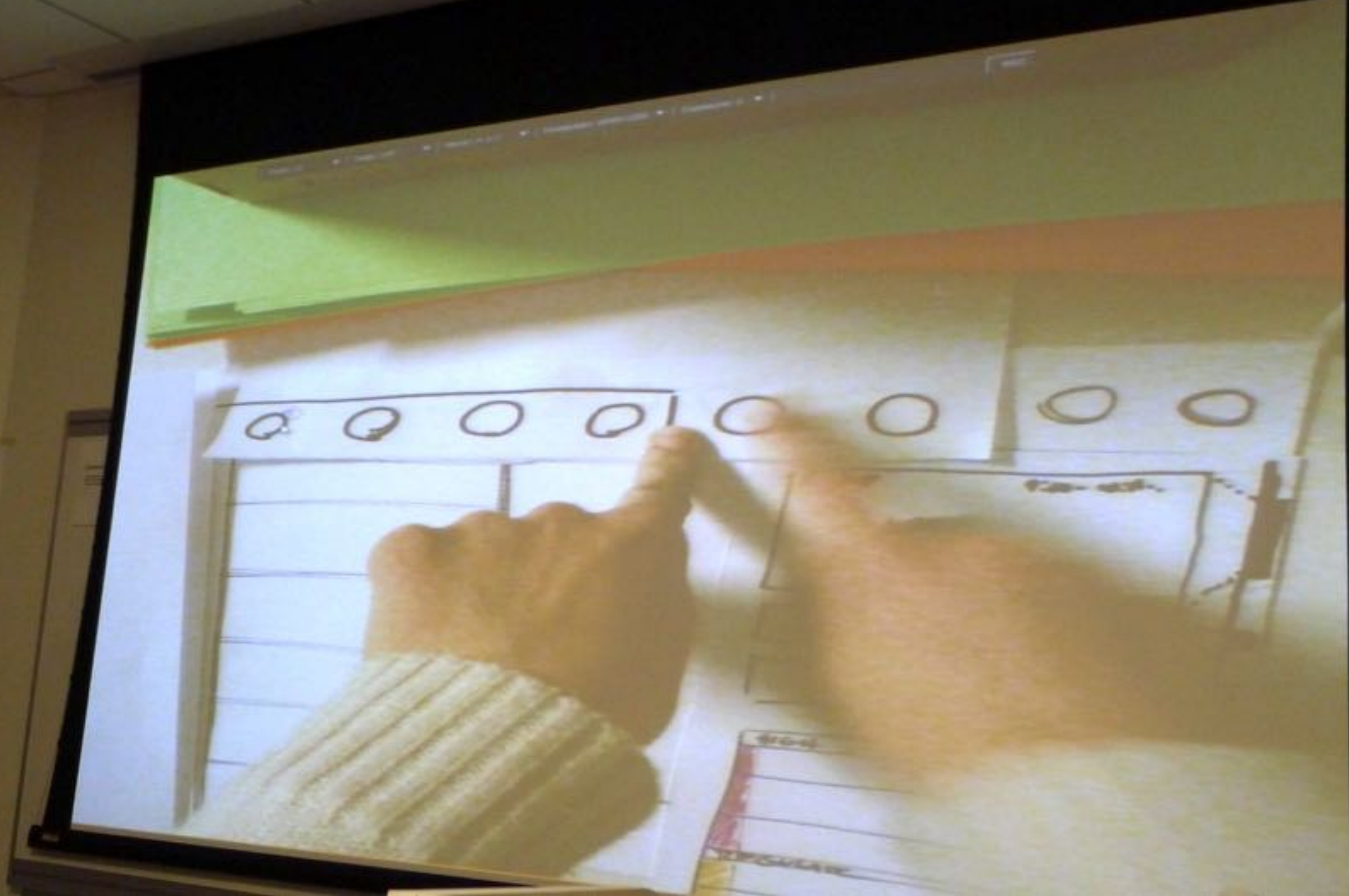


Playbacks



Sponsor Users





# Tools of the trade



Sharpies  
(1 per participant)



Chisel Tip  
Permanent  
Markers  
(2 per team)



Sticky Notes  
(1 pad participant)



Post-it Super  
Sticky Easel  
(wall) Pads  
(1 per team)



Dots  
(2 sheets per  
team)

# Problem Run-down



What is a  
problem  
rundown?

**A set of statements  
that help us  
establish a shared  
understanding of  
the problem.**



What makes a good problem rundown?

- 1. It deconstructs your user's situation and challenges into simple terms that everyone can understand**
- 2. It's as clear and direct as possible - no buzzwords or acronyms**
- 3. It provides the group with a shared focus - narrowing in on the specific problem to be solved**

**Draw template**

**Ideate silently**

**Finalize sentences**

**Our users are** .

**We will improve their**  **experience.**

**Currently these users struggle because** .

**It's kinda like**  **(a simple analogy or metaphor).**

**In a perfect world, they would** .

**This would be great because** .

# Playback

## For presenters:

- Tell us a user-focused story
- Keep it down to a few minutes
- Summarize and prioritize insights

## For the audience:

- Pay attention to stay aligned
- Ask about uncertainties
- Point out assumptions



## Refine example

**Our users are \_\_\_\_\_.**

**We will improve their \_\_\_\_\_ experience.**

**Currently these users struggle because \_\_\_\_\_.**

**It's kinda like \_\_\_\_\_ (a simple analogy or metaphor).**

**In a perfect world, they would \_\_\_\_\_.**

**This would be great because \_\_\_\_\_.**

# Stakeholder Map



What is a stakeholder map?

**Captures the full landscape of participants and interested parties in a project or process.**

What makes a good stakeholder map?

- 1. It includes everyone you can think of**
- 2. It's completed as early as possible and revisited periodically**

**Examples:**

**End users**

**Technologies**

**Business**

**Sponsors**

**Ideate silently**  
**Cluster**

**HR**

**Dan**  
Recruiter

Find the right people to fill open recs

**Sarah**  
HR  
Manager

Retain top talent

**Applicants**

**Joe**  
New hire

Understand where I am in the onboarding process



# Playback

## For presenters:

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# As-Is Scenario Maps



What is an  
as-is  
scenario  
map?

**A chart that portrays  
the user's current  
experience.**

What makes a good as-is scenario map?

- 1. It focuses on a single user**
- 2. It presents a detailed, honest picture of the current situation**
- 3. It exposes pain points and opportunities**

# What does it look like?



**Doing**



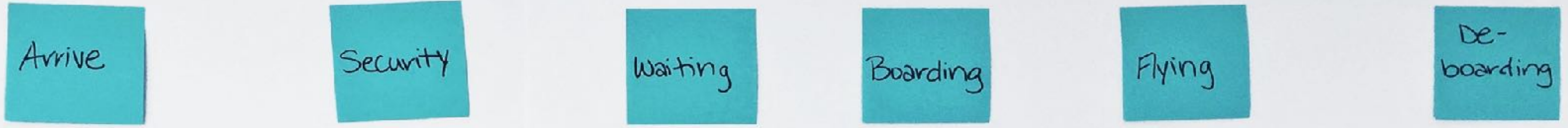
**Thinking**



**Feeling**



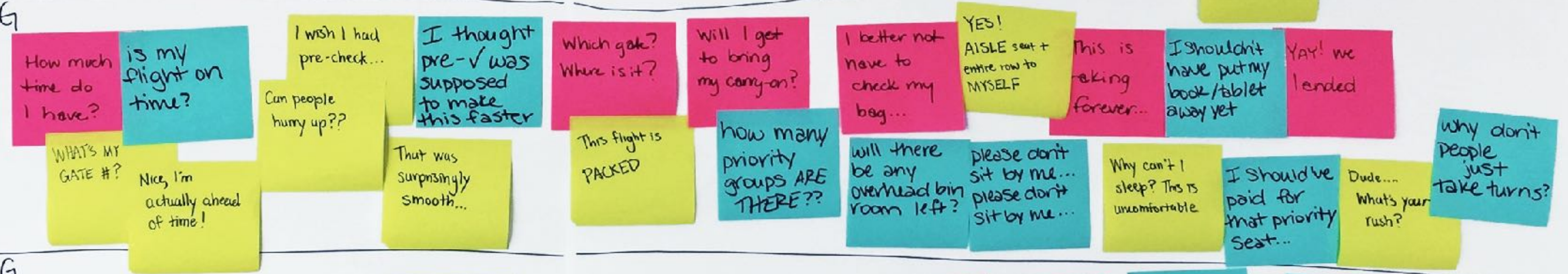
PHASE



DOING



THINKING



FEELING



# Empathy Maps



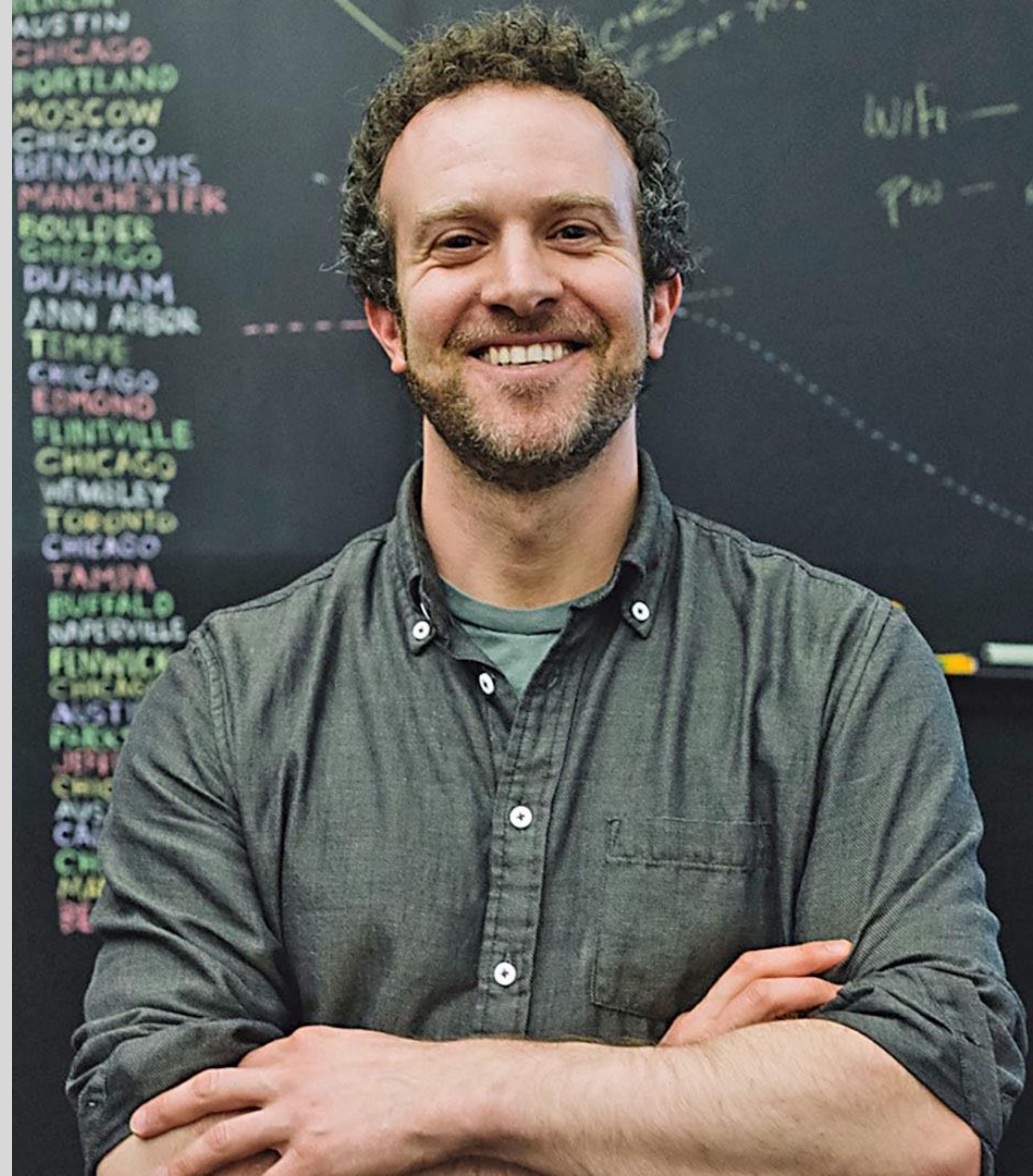
EMPATHY MAPS

“Good design is about recognizing that the **person on the other end** has a lot less patience than you do.”

— JASON FRIED, BASECAMP



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The upside?

**Everyone on the  
team knows  
something  
about the **user**.**

What is an  
empathy  
map?

**Enables us to gain a  
better understanding  
of the user and their  
specific needs.**

**Think of it as  
steppping into your  
user's shoes.**

What makes a good empathy map?

- 1. It explores what users feel**
- 2. It explores multiple user dimensions**
- 3. It describes more than the user's job title**
- 4. It captures both the positive and the negative**

away from the OOTB solutions

we're going into the software dev business."

Look at all the things we could do

follow, but state it in a way that people can find?

there is a desire to find something OOTB with as little customization as possible

Is the information secure?



Everyone writes their own instructions

Talks to Brett

Distrust in vendor products- IF its free can it be as good as something we can build ourselves?

Works internally within Chase. Deal w/ LOB ~~with~~ that has their own LOB

Uses Workplace XT

We've tried vendor products in the past, they never work out

# Build your empathy map

**REACTIONS**

“Where can I find...”  
“It’s great to finally...”

**EXPECTATIONS**  
“I’m tired of always...”  
“I wonder if...”

**Says**

**Thinks**

**Does**

**Feels**

**ACTIONS**

Uses phone to check...  
Calls management when...

**EMOTIONS**  
Burdened by...  
Overjoyed with...

# Need Statements



What is a  
need  
statement?

**A statement that frames  
your user's actual needs,  
desires and goals.**



# What does it look like?

**User**  
\_\_\_\_\_ **needs a way to** \_\_\_\_\_ **do something**  
**that addresses** \_\_\_\_\_ **so that** \_\_\_\_\_ **the user**  
**benefits** \_\_\_\_\_ **directly** \_\_\_\_\_.

What  
makes a  
good need  
statement?

- 1. Focuses on a user's real pain points**
- 2. Does NOT focus on features**
- 3. Can be either specific or general**

# A bad example

LIZ,  
THE BIZ  
ANALYST 

**needs a way to**

see a  
dashboard  
w/all of  
her latest  
data on it

**so that**

she has  
all her  
data in  
one place.

# A bad example

LIZ,  
THE BIZ  
ANALYST 

needs a way to

See a  
dashboard  
w/ all of  
her latest  
data on it

so that

she has  
all her  
data in  
one place.

# A better example

LIZ,  
THE BIZ  
ANALYST 

**needs a way to**

better manage  
her customers'  
changing business  
requirements

**so that**

she can spend  
her time doing  
more important  
things •

# Build your need statements

**User** \_\_\_\_\_ **needs a way to** \_\_\_\_\_ **do something that addresses their need** **so that** \_\_\_\_\_ **the user benefits directly** \_\_\_\_\_.

# Playback

## For presenters:

- Tell us a user-focused story
- Keep it down to a few minutes
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## For the audience:

- Pay attention to stay aligned
- Ask about uncertainties
- Point out assumptions



## NEED STATEMENTS

**Refine example(s)**

**[User Name] needs a way to \_\_\_\_\_ so that \_\_\_\_\_.**





**Lunch!**

**30 min**

# Big Ideas







**“Early on, all of our movies suck.”**

—Ed Catmull, founder of Pixar

IDEATION

What is  
ideation?

**Problem solving with  
no limitations.**



# What makes ideation bad?

Our place is different

There's not enough help

We tried that before

It's too radical a change

It costs too much

They're too busy to do that

We don't have the time

The staff will never buy it

It's against company policy

I'm not saying you're wrong, but...

What  
makes  
ideation  
good?

- 1. No idea is “bad” or “stupid”**
- 2. Go for quantity**
- 3. Encourage wild ideas**
- 4. Build on the ideas of others**
- 5. Stay focused on the topic**
- 6. Have one conversation at a time**
- 7. Draw pictures**
- 8. Don’t go into much detail**
- 9. Consider “It’s kinda like...”**

# Example

**Sketch**

+

**Headline**

+

**Caption**

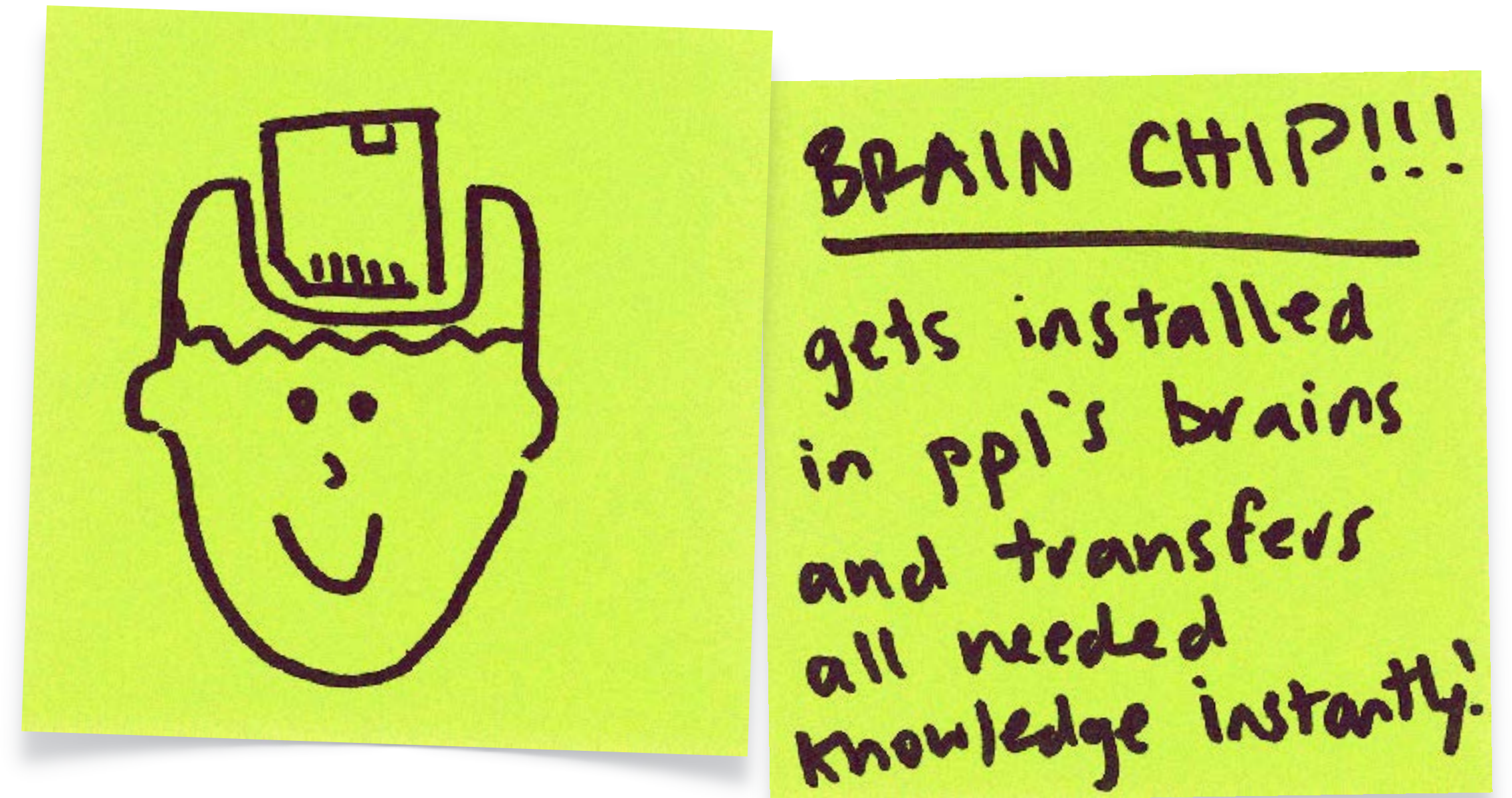


personal chef  
understands  
what you want  
and serves it  
up right on  
time.



An **absurd**  
example

**Sketch**  
+  
**Headline**  
+  
**Caption**



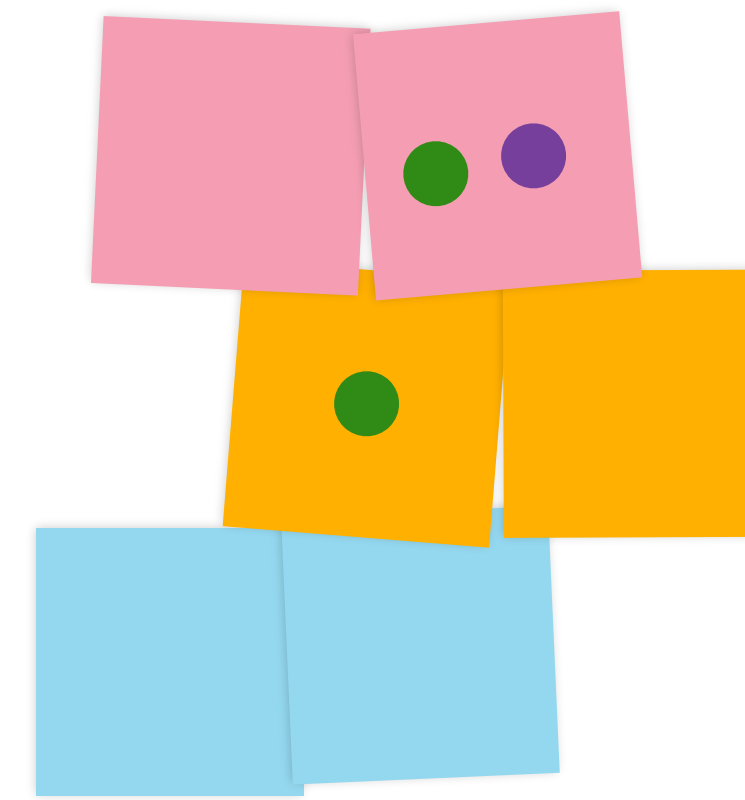
IDEATION

**Ideate silently**  
**Playback**  
**Cluster**

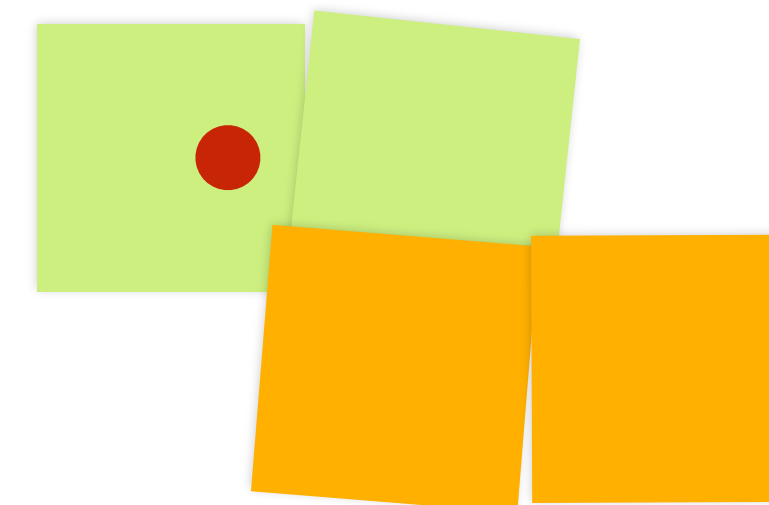
**Cluster Name**



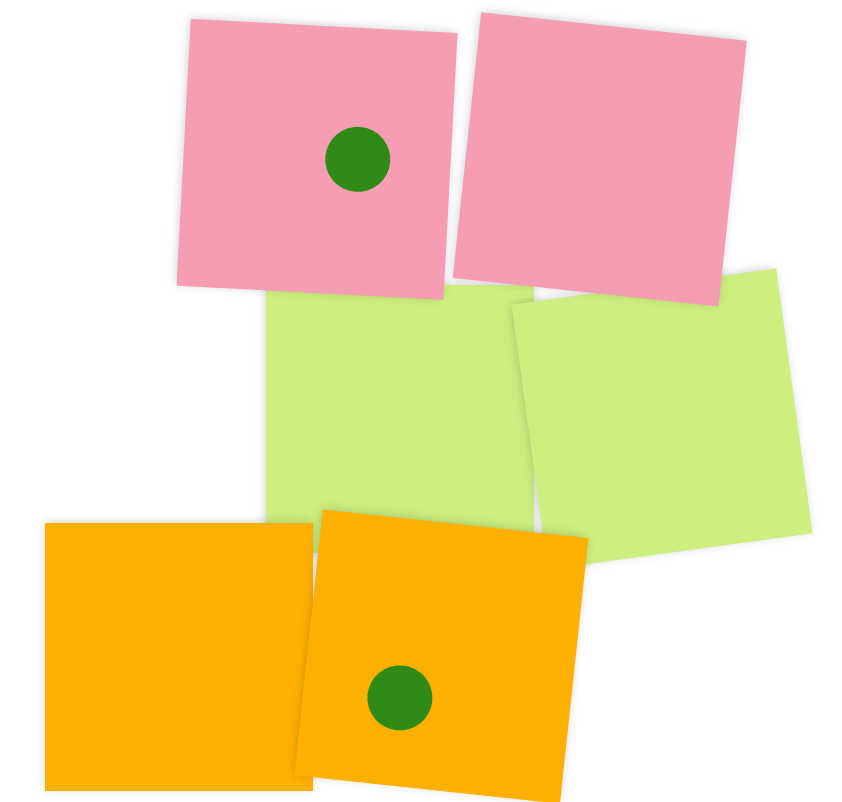
**Cluster Name**



**Cluster Name**



**Cluster Name**



# Playback

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- Tell us a user-focused story
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# Hills



HILLS

# Hills align our teams.

Great outcomes begin with a shared understanding of intent.





# JFK ASKS CONGRESS FOR FUNDS TO SEIZE SPACE LEADERSHIP

Arranged by  
**T. MCMONNELL**

**MOVIE TONE**  
NEWS

Described by  
**JOE KING**

HILLS

I believe that **this Nation** should commit itself to achieving the goal, **before this decade is out**, of **landing a man on the moon and returning him safely to Earth.**

— JOHN F. KENNEDY



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What is  
a Hill?

**User-centered statements  
of intent that the entire  
team can rally around – so  
that everyone is pulling in  
the same direction.**



**You are capturing **the essence of your idea** so there is no question among your entire team about what you're trying to achieve.**

**You are elevating your idea to a concept that can lead to the best possible solution.**

What  
makes a  
good Hill?

- 1. Be clear**
- 2. Impact your user's pain point**
- 3. Compelling**
- 4. Measurable**
- 5. Be achievable**
- 6. Not prescribe a solution**

# How to build a Hill

## **Who**

Specific user or class of users.

## **What**

Specific user enablement.

## **Wow**

Specific and differentiating value to the user.

HILLS

Yellow  
flags in  
Hill-writing



**Improve**  
**Enhance**  
**Better**  
**Accurate**  
**Easy-to-use**

**Quickly**  
**Intuitively**  
**Next-generation**  
**Best-in-class**



# A Good Hill



Jack, a person with Type 2 diabetes, gets personalized meal plans and shopping lists that adapt to his changing health tastes **in a matter of minutes.**

■ Who ■ What ■ Wow

Who What Wow

HILLS

## A Bad Hill

**Deliver a customizable dashboard to display data from various sources.**

**Who What Wow**



HILLS

Another  
**Bad Hill**

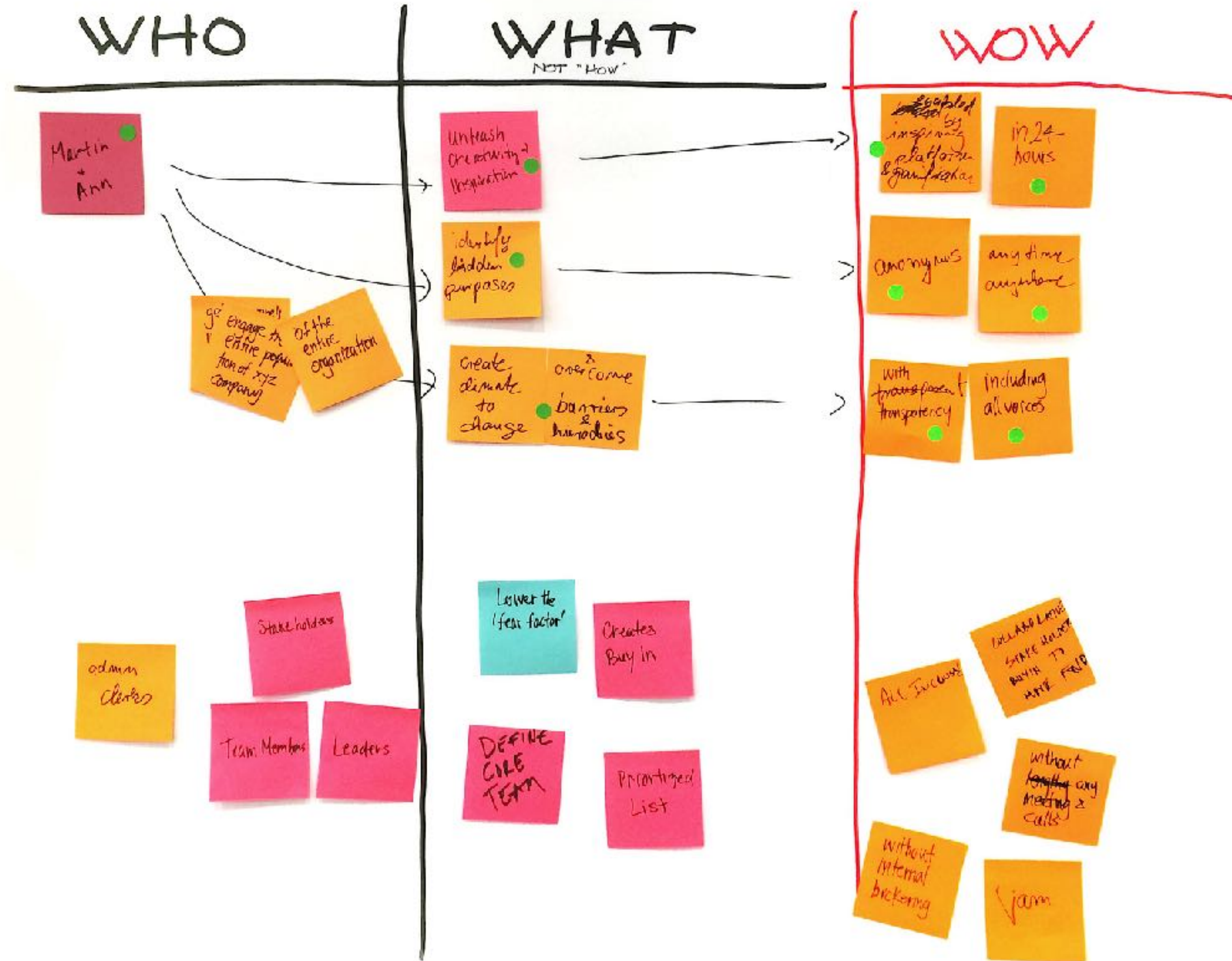
**Enhance customer  
experiences by providing  
digital applications in  
stores.**

**Who What Wow**





# Exercise: Write Hills



# Playback

## For presenters:

- Tell us a user-focused story
- Keep it down to a few minutes
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- Pay attention to stay aligned
- Ask about uncertainties
- Point out assumptions



HILLS

**Whos and Whats**

**Converge**

**Add Wows**

**Converge again**

**Write your hill**

## Pro-tip

- Clear
- Impact your user's pain point
- Compelling
- Measurable
- Achievable
- Not prescribe a solution

**Who**

**What**

**Wow**



# Storyboarding





What is  
storyboarding?

**A way for us to  
visually communicate  
our own understanding  
of the user's future  
for team alignment.**

What  
makes a good  
storyboard?

- 1. Tells a seamless future-state story with characters, a plot, conflict and resolution**
- 2. Focuses on the user, and not screens**
- 3. Is about how well you tell a story, not how well you draw it**
- 4. Enable team discussion and alignment**

# What does it look like?



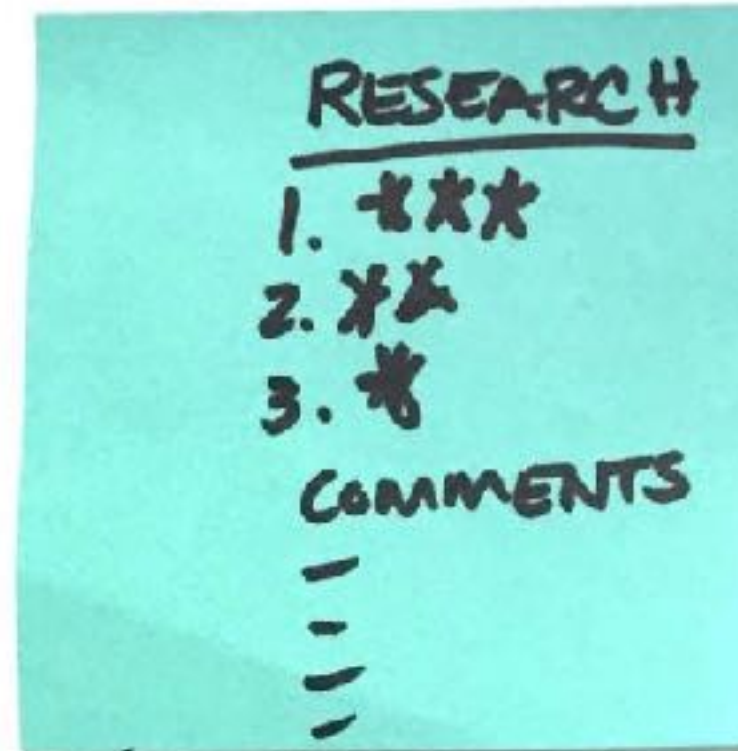
TOM EXPRESSES HIS NEED FOR MARKET INSIGHTS



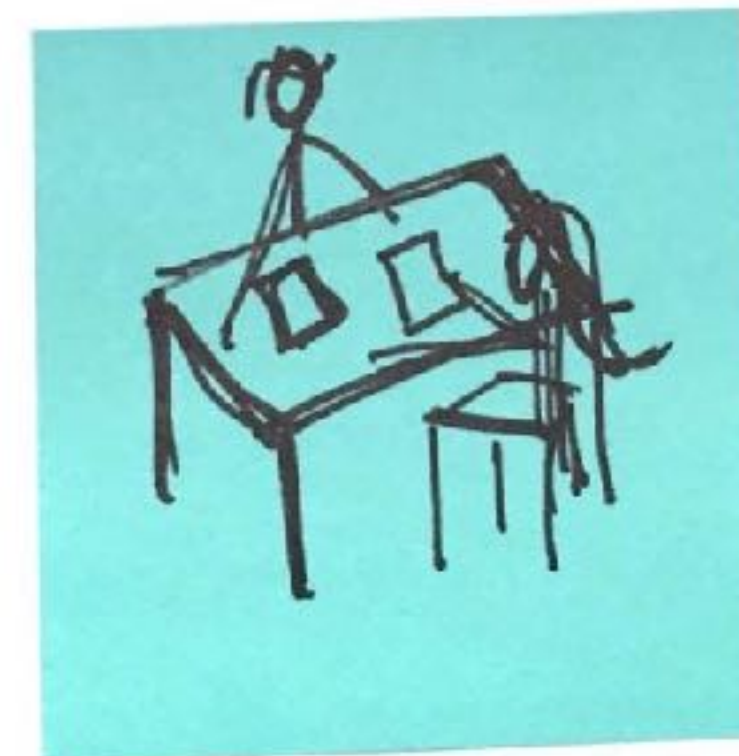
KATIE FUNDS AN IPAD FOR TOM WITH THE IBM MARKET APP.



TOM USES HIS NEW TOY TO TRACK IBM AND USER-GEN CONTENT



THE CONTENT HAS USER RATINGS AND CONTENT FROM ACROSS THE INDUSTRY



TOM SCHEDULES A FOLLOW-UP DISCUSSION WITH KATIE ON SOME OF THE CONTENT



GOOD DISCUSSION AND KATIE IS GAINING TOM'S TRUST



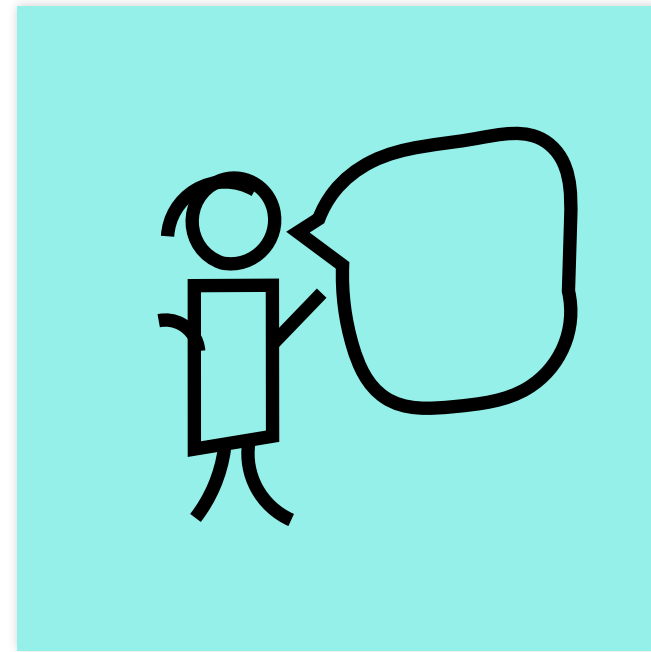
# Pro-tip:

- Using markers keeps it at the right level of fidelity

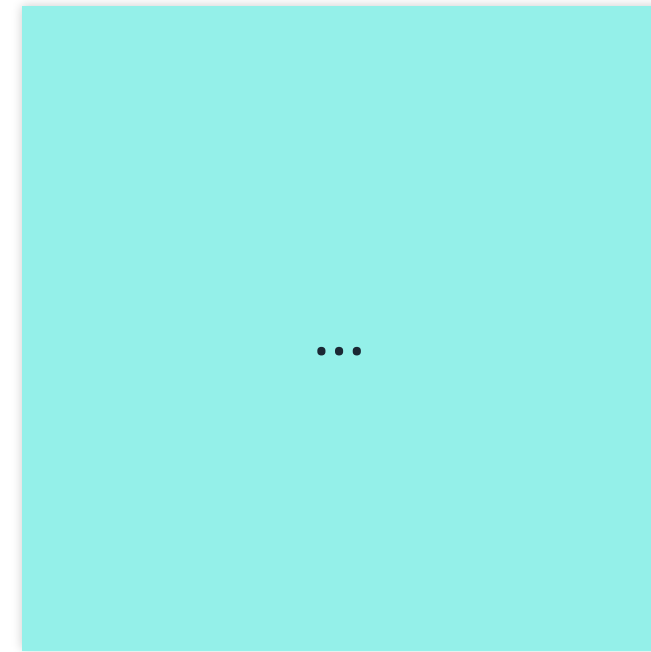


## STORYBOARDING

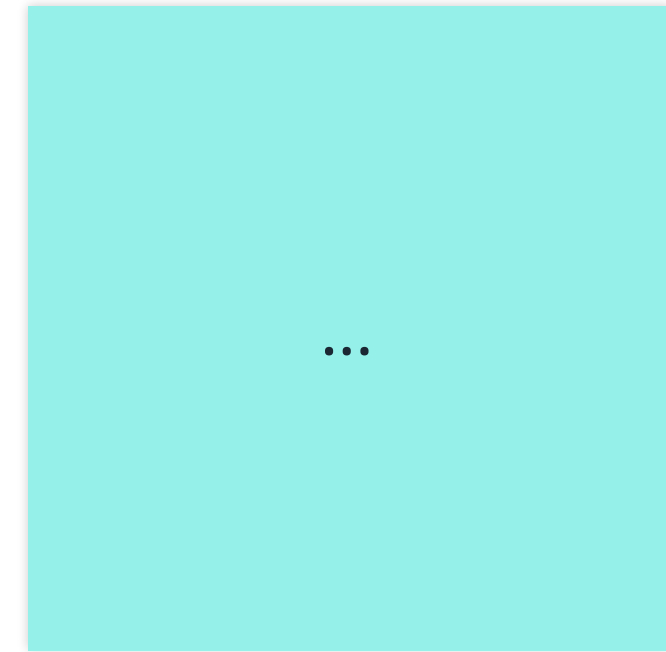
Team members individually:  
Draw and Caption storyboards for 1 - 2 big ideas



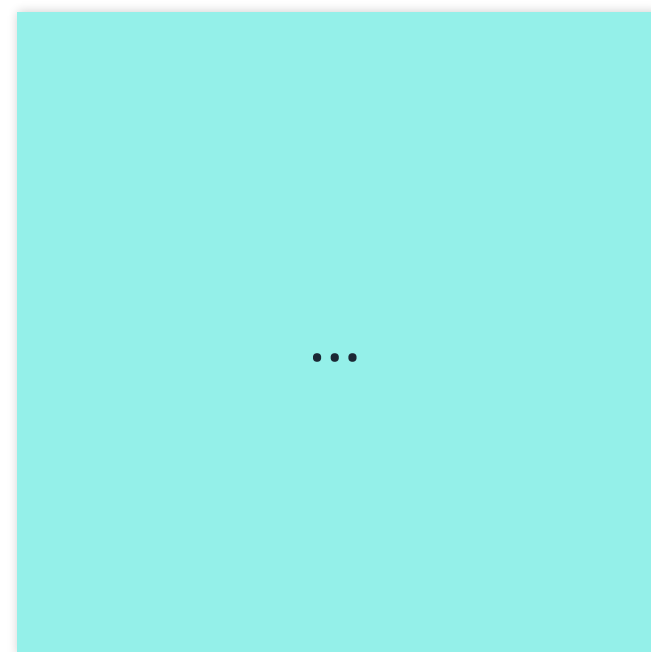
Step 1



Step 2



Step 3



Step 4



Step 5



Step 6



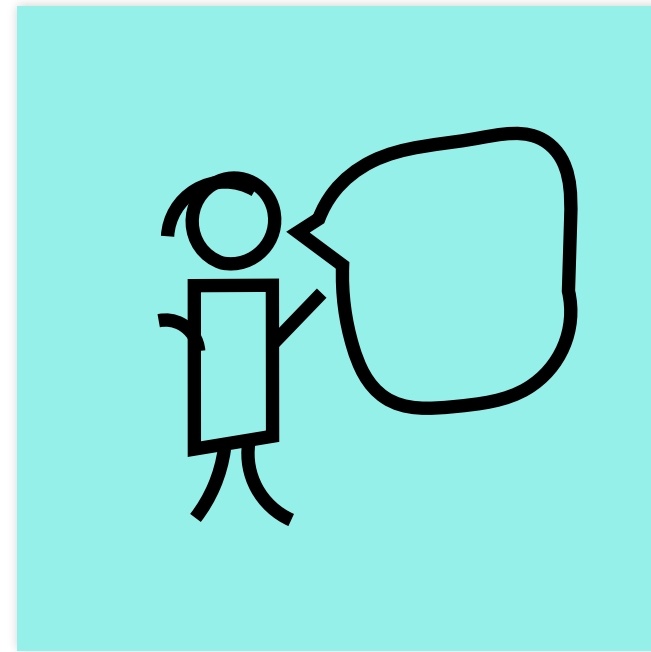
STORYBOARDING

# Reflect and consolidate

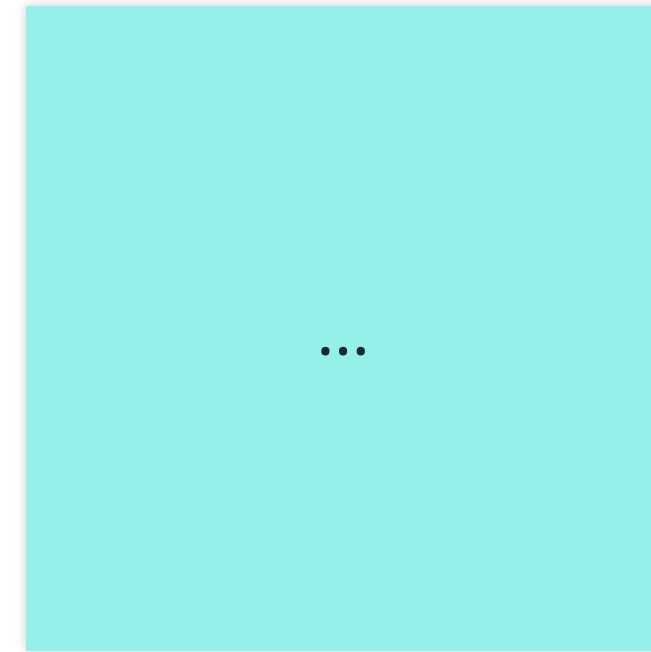


## STORYBOARDING

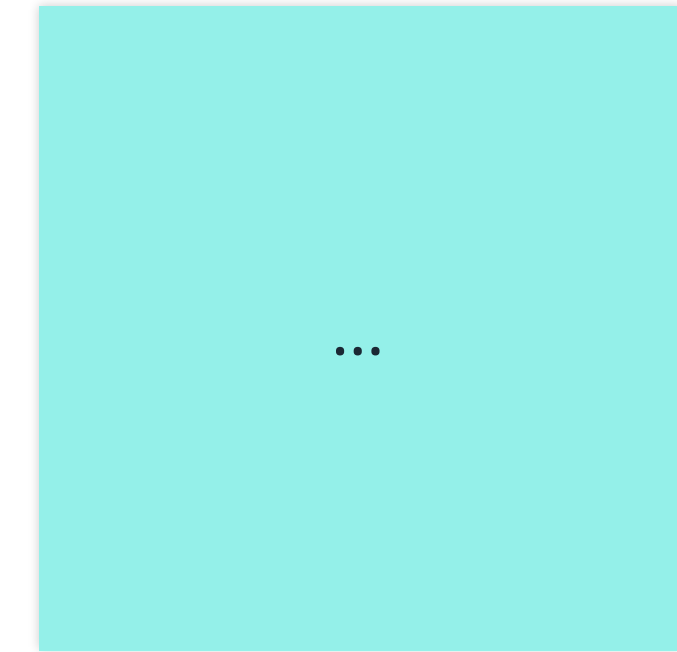
As a group,  
consolidate  
your  
storyboards  
into team  
version of 1  
- 2 big ideas



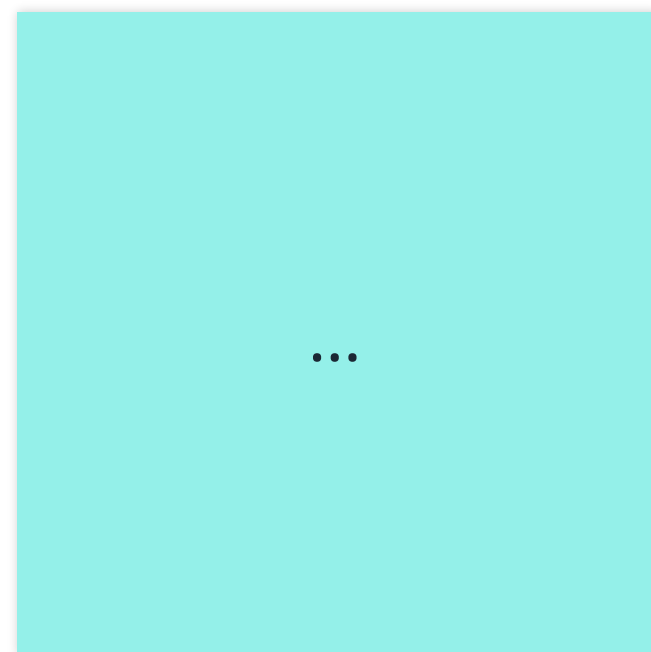
Step 1



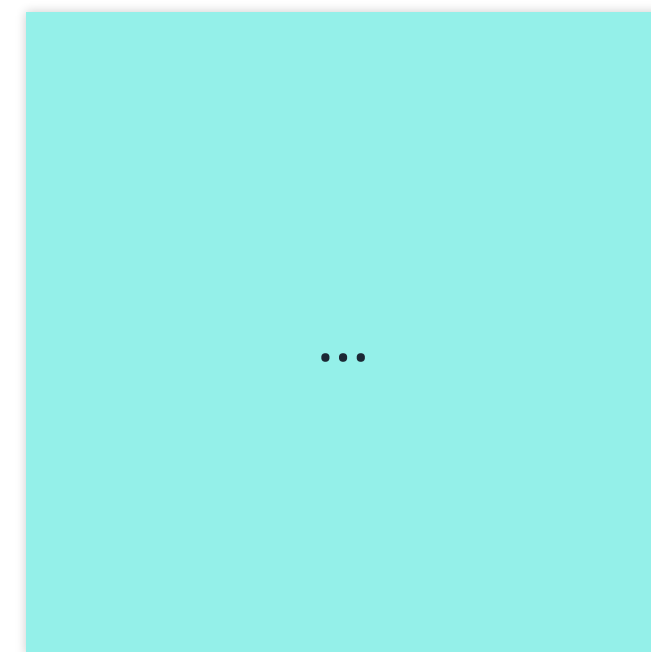
Step 2



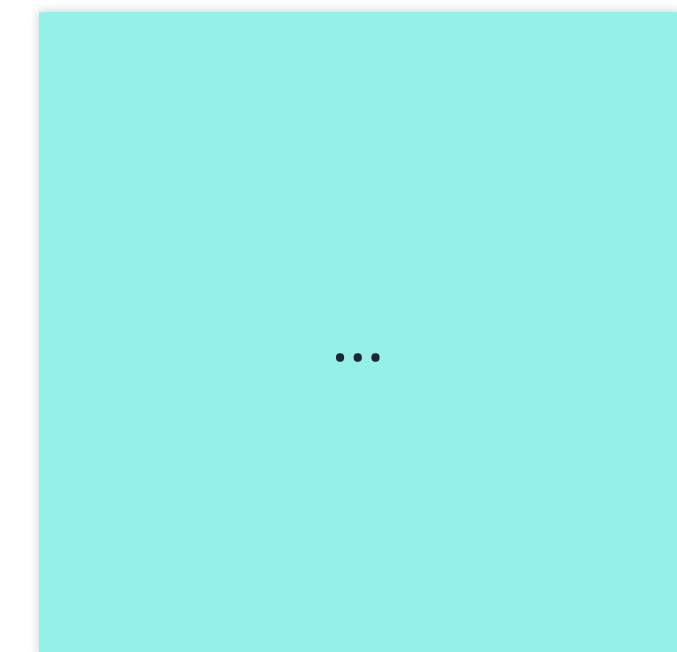
Step 3



Step 4



Step 5



Step 6

# Playback

## For presenters:

- Tell us a user-focused story
- Keep it down to a few minutes
- Summarize and prioritize insights

## For the audience:

- Pay attention to stay aligned
- Ask about uncertainties
- Point out assumptions



# Prototype User Feedback



# Prototype

## **Why prototype?**

Understand as a team what you're building

Need it to test with users, get early feedback

Explain to your stakeholders and partners what you want to building

## **What is prototype and it is hard to create?**

Prototype can be anything. Sketch on posted note → fully functional pilot

# Users Feedback

## **Why feedback?**

Fail early — users will tell you if they love or hate your solution

Learn insights that only users can give you

Gain confidence that your solution is useful and will succeed

Make your business case stronger by documented positive feedback from users

## **How can you gather users' feedback?**

User the prototype

Casual feedback —> Formal testing

Diverse groups of users



# Questions ?



# Wrap up

