

# IBM Design Thinking Field Guide

IBM

# Human-centered outcomes at speed and scale

At IBM, we define design as the intent behind an outcome. We use design thinking to form intent by developing understanding and empathy for our users.

## FROM PROBLEMS TO SOLUTIONS

IBM Design Thinking is our approach to applying design thinking at the speed and scale the modern enterprise demands. It's a framework for teaming and action. It helps our teams not only form intent, but deliver outcomes—outcomes that advance the state of the art and improve the lives of the people they serve.

## What's inside?

Divided into two sections, this field guide provides a high-level overview of IBM Design Thinking:

### LEARNING IT

A summary of the fundamental concepts of IBM Design Thinking

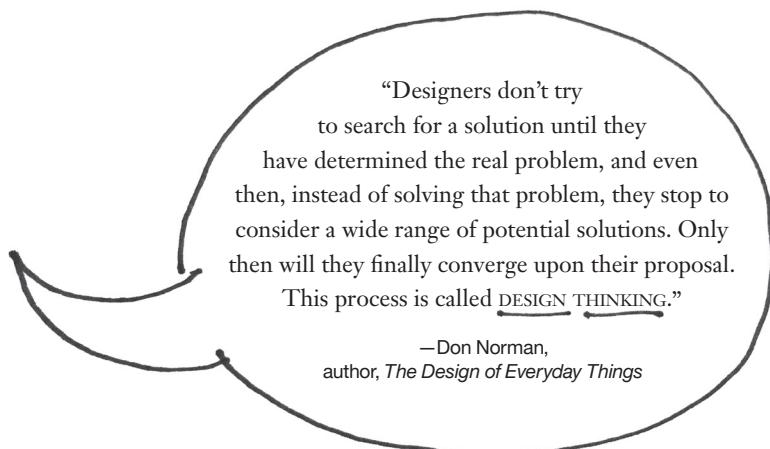
### LEADING IT

A quick reference for facilitating essential IBM Design Thinking activities on your team

## User-centered design

Design as a professional discipline has undergone a tremendous evolution in the last generation from a practice focused mainly on aesthetic style to one with a clear and explicit focus on the “user” (aka: person or group of people who use a product or service) and their hopes, desires, challenges, and needs.

By establishing empathy with the user, designers are able to work toward outcomes that meet those needs more successfully. This user-centered approach known as “design thinking” enables designers and others to address a wide range of complex business and social issues.



## IBM Design Thinking: The Principles

### SEE PROBLEMS AND SOLUTIONS FROM A NEW POINT OF VIEW

Before you start your journey, embrace the principles of IBM Design Thinking: a focus on user outcomes, diverse empowered teams, and a spirit of restless reinvention.



### A FOCUS ON USER OUTCOMES

Our users rely on our solutions to get their jobs done everyday. Success isn’t measured by the features and functions we ship—it’s measured by how well we fulfill our users’ needs.



### DIVERSE EMPOWERED TEAMS

Diverse teams generate more ideas than homogeneous ones, increasing your chance of a breakthrough. Empower them with the expertise and authority to turn those ideas into outcomes.



### RESTLESS REINVENTION

Everything is a prototype. Everything—even in-market solutions. When you think of everything as just another iteration, you’re empowered to bring new thinking to even the oldest problems.

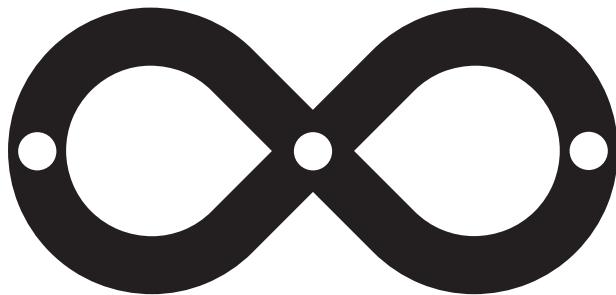


Read all about IBM Design Thinking: [ibm.com/design/thinking](http://ibm.com/design/thinking)

# IBM Design Thinking: The Loop

## UNDERSTAND USERS' NEEDS AND DELIVER OUTCOMES CONTINUOUSLY

At the heart of IBM Design Thinking is a behavioral model for understanding users' needs and envisioning a better future: a continuous loop of observing, reflecting, and making.



### OBSERVE

Immerse yourself in the real world to get to know your users, uncover needs, learn the landscape, and test ideas.

### REFLECT

Come together and form a point of view to find common ground, align the team, uncover insights, and plan ahead.

### MAKE

Give concrete form to abstract ideas to explore possibilities, communicate ideas, prototype concepts, and drive real outcomes.

# IBM Design Thinking: The Keys

## SCALE YOUR PRACTICE TO COMPLEX PROBLEMS AND COMPLEX TEAMS

If every problem could be solved by a handful of people, the Loop would be enough. But in the real world, complex problems call for complex teams.

### HILLS

Align complex teams around a common understanding of the most important user outcomes to achieve.



### PLAYBACKS

Bring your extended team and stakeholders into the loop in a safe, inclusive space to reflect on the work.



### SPONSOR USERS

Collaborate with real users to increase your speed and close the gap between your assumptions and your users' reality.



# Hills

Align complex teams around a common understanding of the most important user outcomes to achieve.

## A SAMPLE HILL

**WHO** A sales leader  
**WHAT** can assemble an agile response team from across her entire corporation  
**WOW** in 24 hours, without management involvement.



## Get aligned

State your intent: Hills turn users' needs into project goals, helping your team align around a common understanding of the intended outcomes to achieve.

### TAKE-BACK TIPS

**Who, What, Wow!** Hills are composed of a “Who” (a specific user or group of users), a “What” (a specific action or enablement), and a “Wow” (a measurable, market differentiator).

**Three and only three.** It's often challenging for teams to focus on three (and only three) Hills because this might mean that very valid ideas are not being included. It's important to realize that additional Hills can be addressed in future releases. Consider building them into a roadmap.

**It's a real world out there.** We know there's a backlog to groom and technical debt to pay down. Your investment in necessary items like these—the “technical foundation”—should be made explicit up front while defining your Hills.



# Playbacks

Reflect together in a safe space to give and receive criticism.

## COMMON TYPES OF MILESTONE PLAYBACKS

**MARKET PLAYBACK** establishes an outside-in market point of view and preliminary business case as the basis for moving forward.

**HILLS PLAYBACK** commits your team to the mission for the release(s) through a draft version of the Hills and the underlying personas.

**PLAYBACK ZERO** aligns your team around a finalized version of the Hills and the user experience to achieve them.

**DELIVERY PLAYBACKS** of coded stories keep your to-be scenarios in focus as implementation advances.

## Stay aligned

Not everyone has time to be in the loop on every project. Depending on your perspective, over time, it might seem like the project is drifting off-course, or that your stakeholders are out of touch with what your team has learned.

### TAKE-BACK TIPS

**No surprises!** Leading up to milestone Playbacks, hold meetings and working sessions with all necessary stakeholders to gain consensus and share work-in-progress along the way.

**Show before you tell.** Playback decks should have a strongly visual emphasis based on the work—not contrived synopses or feel-good scenarios.

**Make us care.** A real, human story should be at the core of every Playback. Show how your tool or concept solves a problem in your user's real world workflow.



DESIGN IS  
EVERWHERE!

# Sponsor Users

Give users a seat at the table.  
Invite them to observe, reflect,  
and make with you.

## Break the empathy barrier

Sponsor Users are users or potential users that bring their lived experience and domain expertise to your team. They aren't just passive subjects—they're active participants who work alongside your team to help you deliver an outcome that meets their needs. While Sponsor Users won't replace formal design research and usability studies, every interaction you have together will close the gap between your assumptions and their reality.

### TAKE-BACK TIPS

**Design for real target users rather than imagined needs.**  
Sponsor Users should be real people, not personas or “types.” They participate with your team during the entire development process under Agreements.

**Sponsor Users should attend Playbacks.** Ideally, a Sponsor User can actually present the product demo during your Playback Zero.

**Involve your whole team.** Finding Sponsor Users is not the responsibility of a single person or discipline—everyone on your team should be contributing ideas for Sponsor Users.

**Potential users are all around us.** You can find users in surprising places like conferences, meetups, and through social media. But when engaging Sponsor Users, be sure to follow secure and ethical practices and maintain compliance with all IBM policies.

# Six universal experiences

The six universal experiences are a means to focus your work for a release or planning period on a user's distinct interactions within the overall arc of their experience with an IBM product.

## TAKE-BACK TIPS

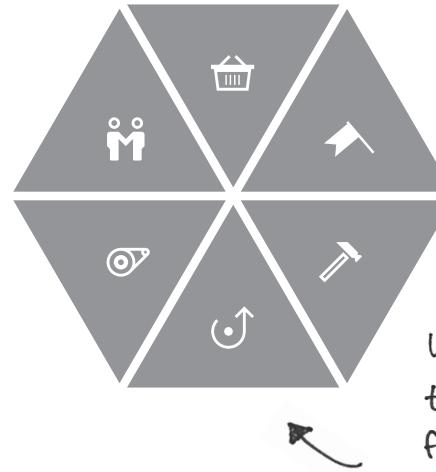
**Be choosy.** For any particular release, focus your work on one or two of the six experiences.

**It ain't a checklist.** Rather, use the six experiences as a lens to ensure that your team is holistically considering all of your user's product experiences.

**User, user, user.** The six experiences can help organize dispersed teams (including sales, support, and marketing) around user-focused outcomes.



There's lots more about the six universal experiences on the IBM Design Language website: [ibm.com/design/language](http://ibm.com/design/language)



*Use the six experiences to frame opportunities for improving the way people work.*



### DISCOVER, TRY, AND BUY

How do I get it?



### GET STARTED

How do I get value?



### EVERYDAY USE

How do I get my job done?



### MANAGE AND UPGRADE

How do I keep it running?



### LEVERAGE AND EXTEND

How do I build on it?



### SUPPORT

How do I get unstuck?

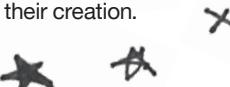
# Radical collaboration

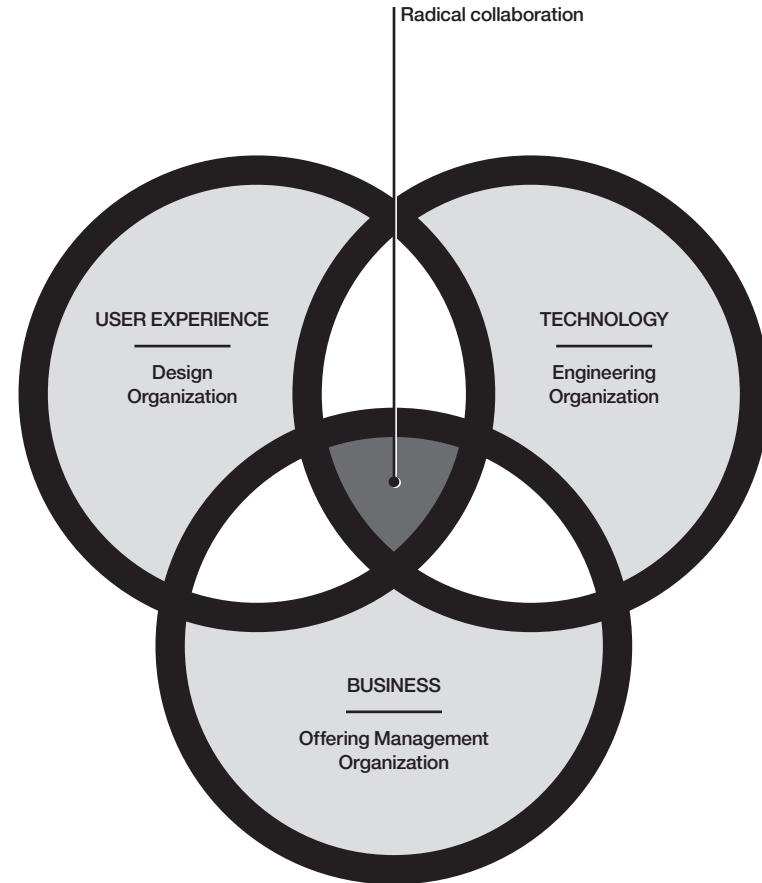
“Radical collaboration” means that all key stakeholders are part of co-creating great user experiences from the beginning. For your team to take full advantage of IBM Design Thinking, you need to commit to a cross-discipline way of working throughout the entirety of a release.

Keep in mind: when teams fail, it’s not usually because they didn’t have great ideas. It’s probably because they didn’t include the people who had them. Radical collaboration is about proactively including diverse perspectives and disciplines in our conversations—see the principle of “diverse empowered teams” on page 3. When you’re not sure who to invite to a conversation, err on the side of inclusivity.

## TAKE-BACK TIPS

**Good collaboration needs good communication.** As your team starts to work together, come to agreement on a set of expectations and a system for communicating with each other. Create a “tool chain” of collaboration tools that lets stakeholders share their work-in-progress while they work day-to-day in the tools that best fit their role.

**Don’t slip back into the waterfall.** If you start to find your team simply reviewing artifacts after-the-fact with stakeholders from other disciplines: STOP AND START OVER with broad, up-front, and active participation in their creation. 



**N-in-a-box.** Whenever possible, go beyond “3-in-box” (design, engineering, and offering management) to include other disciplines such as content design, sales, marketing, and support in design thinking activities, key decisions, workshops, and milestone Playbacks.

# IBM Offering Management

IBM Offering Management is IBM's point-of-view on markets, users, products, and services. Offering managers decide in which markets IBM will play and how we will differentiate in those markets via unique functionality, great user experiences, digital engagement, and ecosystem partnering.

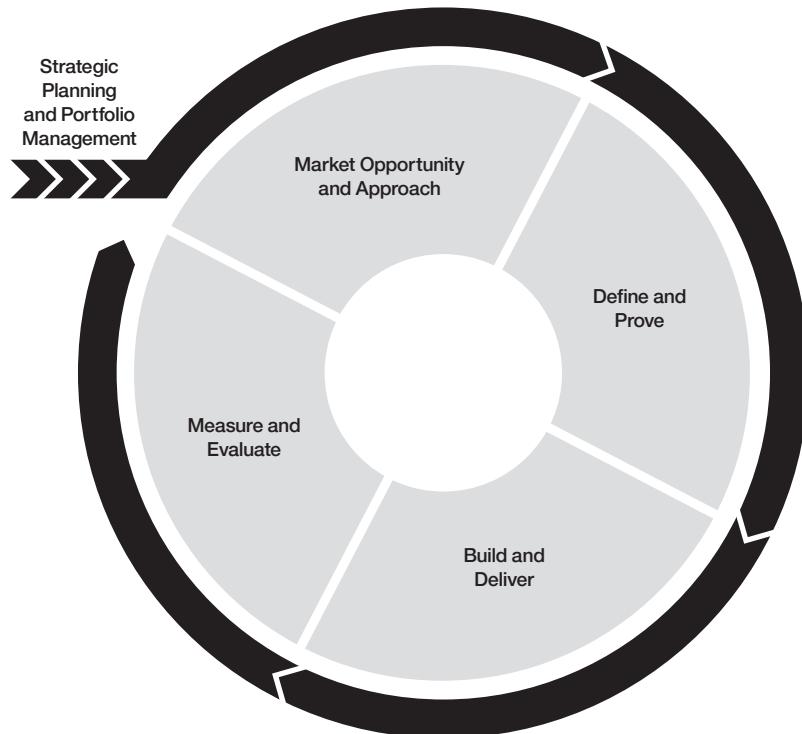
Offering managers are empowered to act as entrepreneurs to explore new markets of users with new user experiences. They are responsible for leading the co-creation of "whole" offerings that deliver value across all of the six universal experiences.

## TAKE-BACK TIPS

**Get outside.** Great offering managers "get out of the building" to discover real user experiences to improve upon. User, market, and competitive research provide the fact base for all offering decisions.

**Look across offerings.** Given IBM's comprehensive portfolios, offering managers should look at how individual offerings work together to address users in a market. Most of our offerings will be part of larger solutions.

**Lead your offering.** Offering managers are being empowered to lead their offerings, but no one is going to clear the path for you. It's up to each offering manager to act as an internal entrepreneur for their offering—their key "superpower" will be persuasion, not command.



**Ch-ch-changes.** At IBM, the practice of Product Management is evolving into Offering Management to ensure that IBM wins in markets with iconic user experiences and an integrated point-of-view that is differentiated from competitors.

# Agile and IBM Design Thinking

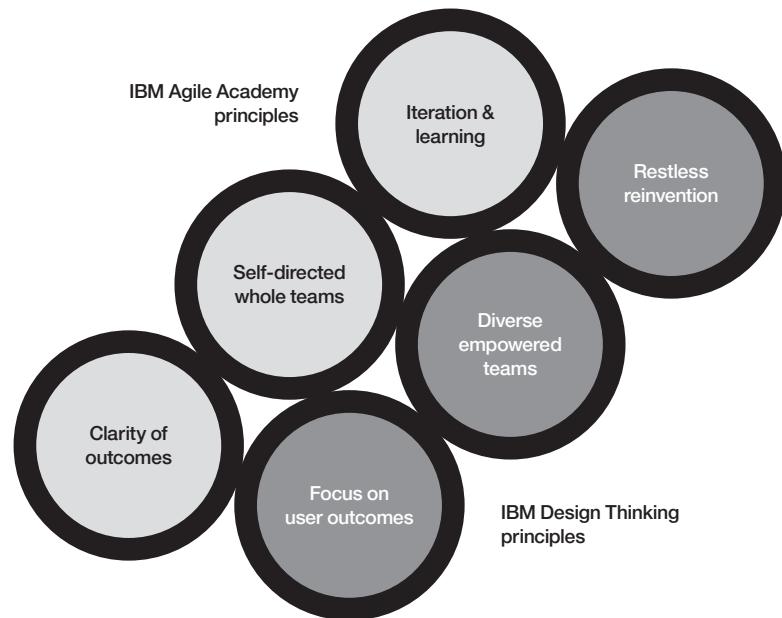
There's a great deal of shared "DNA" between Agile and IBM Design Thinking: individuals and interactions over processes and tools, working prototypes over comprehensive artifacts, customer collaboration over contract negotiation, and pivoting for change over sticking to the original plan. IBM Design Thinking incrementally delivers great user experiences, while Agile incrementally delivers great enabling software. What links them most closely is the continuous cycle of experience maps and Playbacks.

## TAKE-BACK TIPS

**Everyone grooms the backlog.** After Playback Zero, all disciplines collaborate on a release backlog. Throughout the release cycle, leaders from each discipline meet to groom the backlog, updating the priority as necessary and ensuring that the top of the backlog represents current priorities and stays true to the "minimum delightful experience."

**Double-vision.** When developers, designers, and offering managers all see the backlog through the dual lenses of functionality and experience, then Agile and IBM Design Thinking are truly one.

**Hypothesis-driven design and development.** Create measurable hypotheses describing what you think success looks like and then investigate and possibly pivot when reality doesn't meet your expectation—positively or negatively.



**Together forever.** The principles of Agile and IBM Design Thinking are very closely aligned. Together, they offer an opportunity to solve complex problems for our users with creativity and empirical adaptation.

# The best tools for the best practices

By using tools your teams love using, your team can more easily and successfully practice Agile and IBM Design Thinking in a collaborative and user-centered way—whether your team is co-located or distributed around the world.

## TAKE-BACK TIPS



**Choose wisely.** When choosing tools for your whole team to use, consider the entire makeup of your team and decide if everyone would benefit from using industry standard tools.

## COLLABORATION TOOLS



**GitHub Enterprise:** A web-based Git repository hosting service offering distributed revision control, source code management, and access control in support of a social and highly collaborative development workflow.



**Mural:** A web-based virtual whiteboard that lets you capture plans and ideas with your team.



**Slack Enterprise:** A messaging app for teams offering a wide range of integrations with other tools and services along with powerful search.



**Bluemix Dedicated:** A Platform as a Service that enables developers to quickly and easily create, deploy, and manage applications on the cloud.

# Mantras OF THE Master Facilitator

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## LESS TALKING, MORE WRITING

Everyone should capture lots of ideas onto sticky notes and post them on the wall *before* discussing them.

## LESS WRITING, MORE DRAWING

Different words mean different things to different people. Instead, try making a quick or crude sketch to communicate your idea.

## QUANTITY OVER QUALITY

Ideas with big potential can be killed easily by negative attitudes, so first get lots of ideas posted to the wall and *then* discuss and distill.

## MAKE EVERY VOICE HEARD

Everyone has a Sharpie®. Everyone has a pad of sticky notes.

Everyone contributes ideas. Everyone's ideas are valid.

*Radical collaboration!*

## INCLUSIVE, WHOLE-TEAM APPROACH

Don't make decisions without involving people that will act on them. Everyone pitches in to fill the gaps!

## YES, AND...

It's easy to play the devil's advocate. Instead, push yourself to build on your teammates' ideas by saying, "Yes, and..." while iterating.

## BE HONEST ABOUT WHAT YOU (DON'T) KNOW

Sometimes you won't have all of the answers—that's okay! Actively work to admit and resolve uncertainty, especially on topics that put your project most at risk.

# IBM Design Thinking activities

This section of the field guide contains activities for your team to use every day to help you practice radical collaboration and put the user at the center of your project. Each activity can be used in isolation or as part of a broader set of activities with your team and Sponsor Users. Think of each activity as a tool that helps you establish the IBM Design Thinking framework, understand your user's problems and motivations, explore new concepts, prototype designs, and evaluate with stakeholders.

Remember, this is not a cookbook or a set of recipes. Nor is it a process or methodology. It's a set of recommended practices that will help you think orthogonally and move beyond feature-centric delivery.

## TAKE-BACK TIPS

**Space and supplies.** Prepare your workspace with pads of sticky notes of various colors, some Sharpie® markers, and a drawing surface—a whiteboard or large pad will do. These tools encourage every team member to engage in the thinking behind the design. If your team is distributed, there are plenty of virtual substitutes—see page 20.

**Conversations and collective decisions.** The activities contained here are intended to encourage focused and productive conversations between multiple disciplines on your team. The value isn't in having a completed artifact—it's in doing the activities *together* so that you can agree on the right course of action *together*.

**If you're sitting down, you're having a meeting.** Get everyone up and active—it's difficult to include many voices when one person is standing at the front of the room. If you have lots of participants, break them up into working groups of 5–8 people and frequently playback to each other.

# Design thinking facilitation

Design thinking facilitators initiate and lead design thinking activities on their team to reach great outcomes for their users. With time and practice, anyone can become an effective and credible facilitator.

Whether facilitating an ad hoc activity to help your team work through an immediate decision or planning a lengthier and more formal workshop, use what works for you. IBM Design Thinking is designed as a framework for you and your team to use bits and pieces of as it makes sense.

As a design thinking facilitator, you help ensure that conversations and activities are centered on the user, how they work, and what market they occupy. And you can serve as the driving force for inclusion and collaboration so the voices of people from all areas of your business are heard and understood.

## TAKE-BACK TIPS

**Practice makes perfect.** Much like practicing IBM Design Thinking in general, we find that the best facilitators learn to be *better* facilitators by *doing* facilitation. Continued weekly practice over time, matched with coaching or apprenticeship, will prepare you to lead more advanced design thinking engagements like workshops.

**Use what works for you.** Concentrate your facilitation efforts on initiating design thinking activities that make sense for the work your team is doing right now and guiding those teammates who aren't familiar with design thinking by actively engaging them in the practices.



## FACILITATION IS AN EVERY DAY PRACTICE.

Do you find yourself doing these things on a regular basis? If so, you're a natural facilitator!

### GREAT FACILITATORS...

- Plan, communicate, and lead design thinking activities, whether formal or informal.
- Have a passion and enthusiasm for getting the whole team involved.
- Guide coworkers in understanding and productively engaging in design thinking activities.
- Drive the process and guide to the goal, but don't define the details of the end result.
- Ensure shared understanding and have everyone's voice heard.
- Know what their limits are and can say, "That's a great question! I don't know the answer but I know someone who does."

# Hopes and Fears

## WHEN YOU MIGHT USE THIS

If you're starting a project, kicking-off a workshop, or bringing in new team members, this activity helps you get to know each other, expose aspirations and concerns, and prepare everyone to start.

## TIME

15–30 minutes

## INSTRUCTIONS

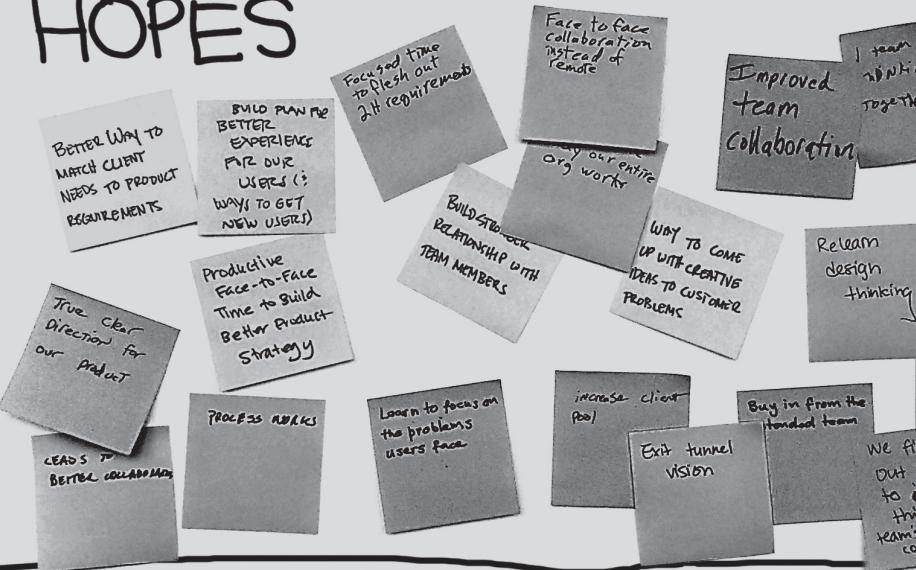
1. Label one area for Hopes and another for Fears.
2. Ask team members, "What about this project are you really excited about? What has potential? And what are you concerned about? What do you think won't work?"
3. Diverge, with each team member writing one "hope" or "fear" per sticky note and applying it to the appropriate area on the map.
4. Playback, discuss, and synthesize. What themes emerge?

## TAKE-BACK TIPS

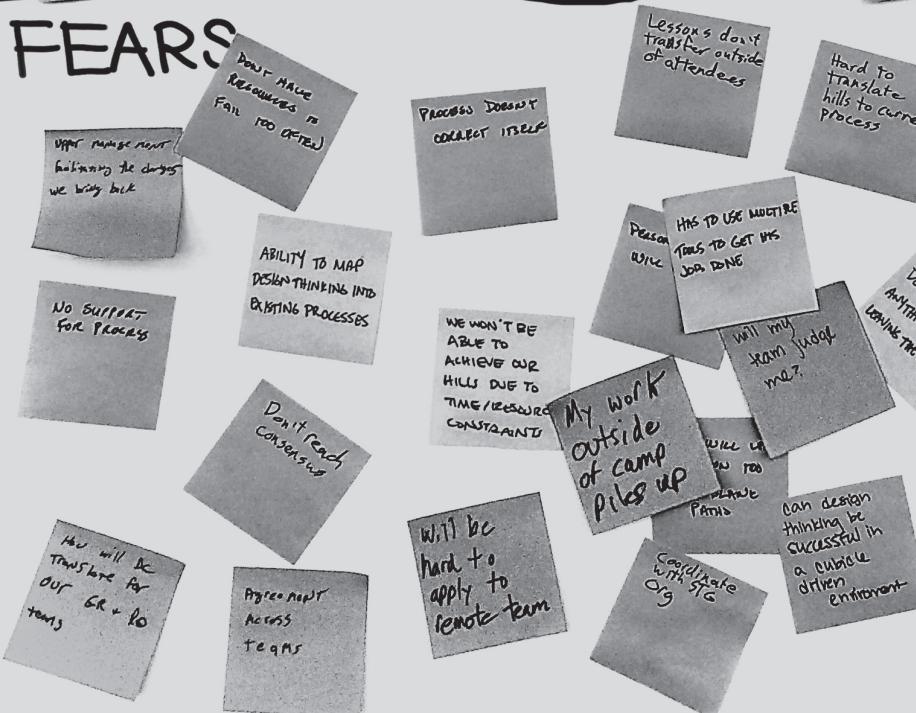
**Warm up and take the temperature.** This activity is an effective way to gauge participants' attitudes about a workshop. "Hopes" usually reveal their expectations about what can be accomplished and "fears" may reveal their doubts about making an investment to work together.

**Let it persist.** Keep the artifact posted where team members can see it and refer back frequently to track progress. Place stars on "hopes" notes that become realized and remove "fears" notes that melt away. "Fears" that persist should be directly addressed.

# HOPES



# FEARS



# Stakeholder Map

## WHEN YOU MIGHT USE THIS

If you're integrating new team members, starting a new project, exploring a new market, or expanding an offering, this activity helps you identify project stakeholders, their expectations, and relationships.

TIME

30–60  
minutes

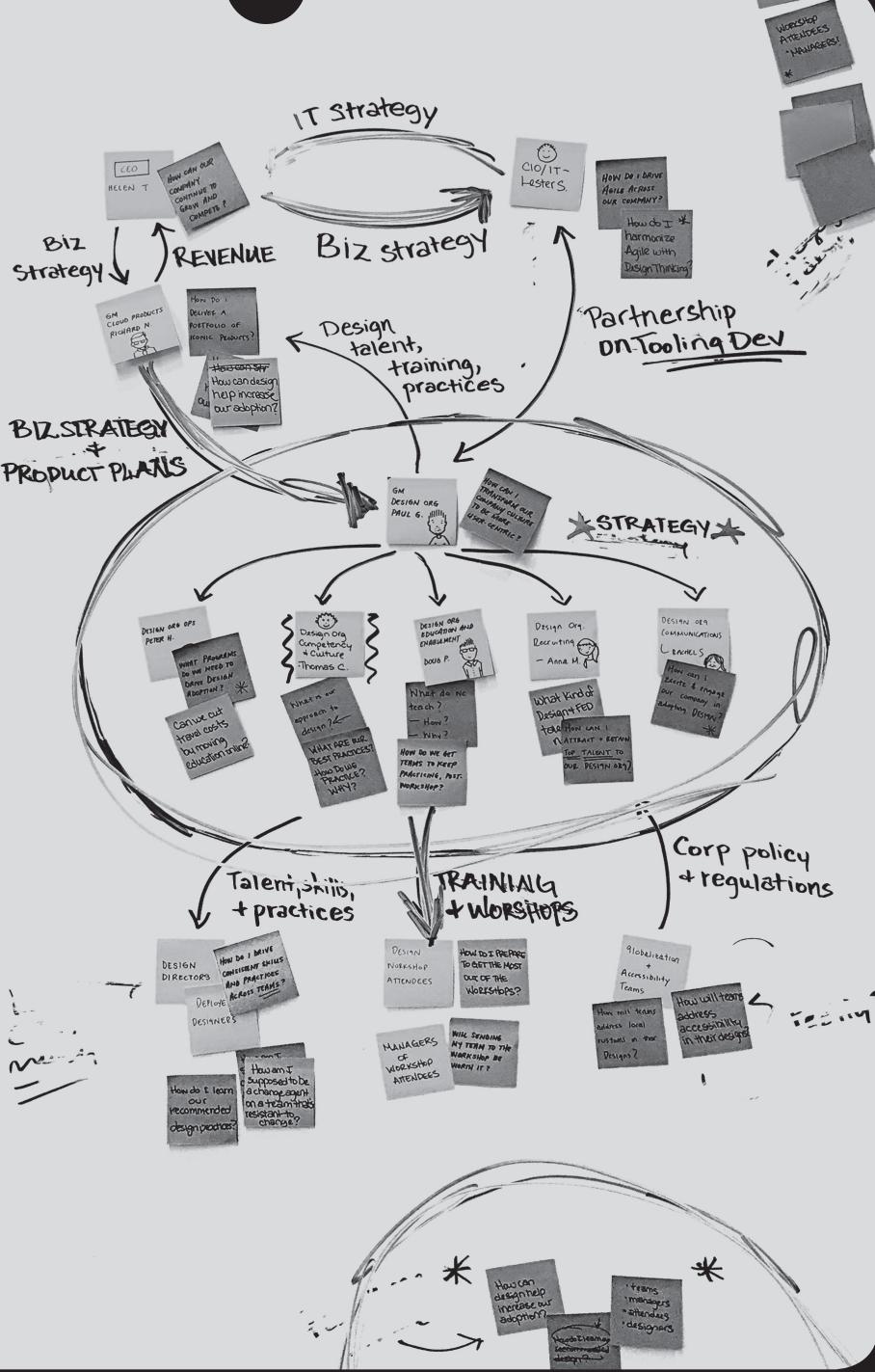
## **INSTRUCTIONS**

1. Diverge on identifying stakeholders, one per sticky note.  
“Stakeholders” can include teams, team roles, project leads, executives, partners, customers, and end users.
  2. For each stakeholder, add a second sticky note with a quote expressing their thoughts, opinions, or expectations.
  3. In parallel, cluster stakeholders and label the groups.
  4. Draw and label lines among groups representing relationships such as influence, process, or dependencies.

## TAKE-BACK TIPS

**Don't delay.** Take an inventory of a project's stakeholders as soon as possible in the development cycle. It's difficult to circle back with those who have been forgotten, so it's better to get a jump start than to play catch-up.

**Assumptions aren't always bad.** Assume that everyone is involved or impacted until proven otherwise. This might seem hard to do, but it's actually easier than trying to guess who's impacted and risking an accidental oversight.



# Empathy Map

## **WHEN YOU MIGHT USE THIS**

Empathy Maps help to rapidly put your team in the user's shoes and align on pains and gains—whether at the beginning of a project or mid-stream when you need to re-focus on your user.

## **INSTRUCTIONS**

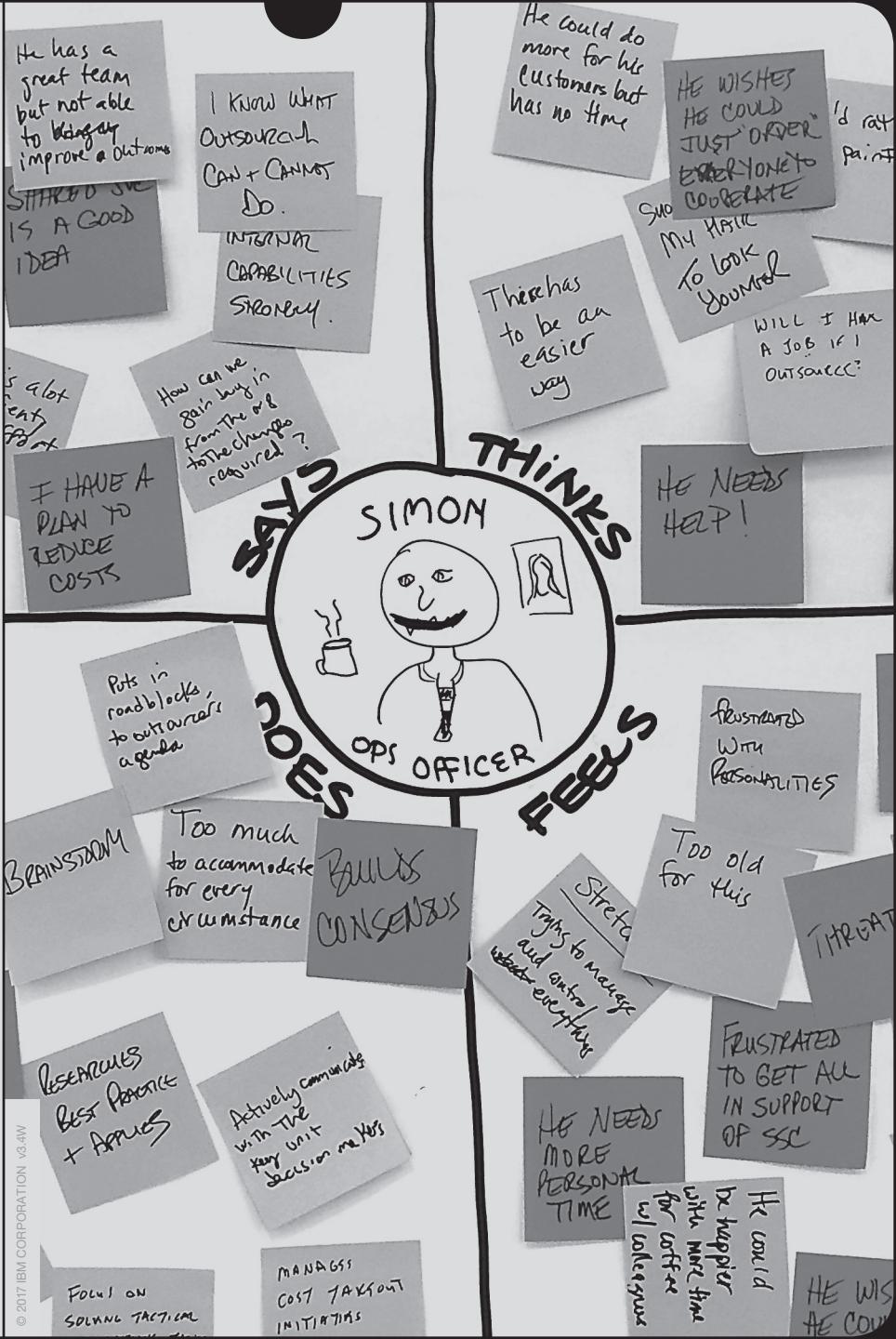
1. Draw the map and its four quadrants: Says, Does, Thinks, and Feels.
  2. Sketch your user in the center and give them a name and a bit of description about who they are or what they do.
  3. Diverge, with each team member writing one observation per sticky note and applying it to the appropriate quadrant of the map.
  4. Annotate unknowns (assumptions and questions) for later inquiry or validation.
  5. Discuss observations and fill in gaps collaboratively.

## TAKE-BACK TIPS

**Don't go it alone.** Empathy for users arises from sharing in the collaborative *making* of the Empathy Map. Everyone knows something about your user, so use the activity as a means to gather, socialize, and synthesize that information together.

**Involve your users.** Share your Empathy Maps with your Sponsor Users to validate or invalidate your observations and assumptions. Better yet, invite them to co-create the artifact with your team.

**Go beyond the job title.** Rather than focusing on your user's "job title," consider their actual tasks, motivations, goals, and obstacles.



# Scenario Map (As-is/To-be)

## WHEN YOU MIGHT USE THIS

As-is Scenario Maps help to document collective understanding of user workflows and are best used as precursors to exploring new ideas. To-be Scenario Maps tell the story of a better experience for your user.

## TIME

60-90 minutes

## INSTRUCTIONS

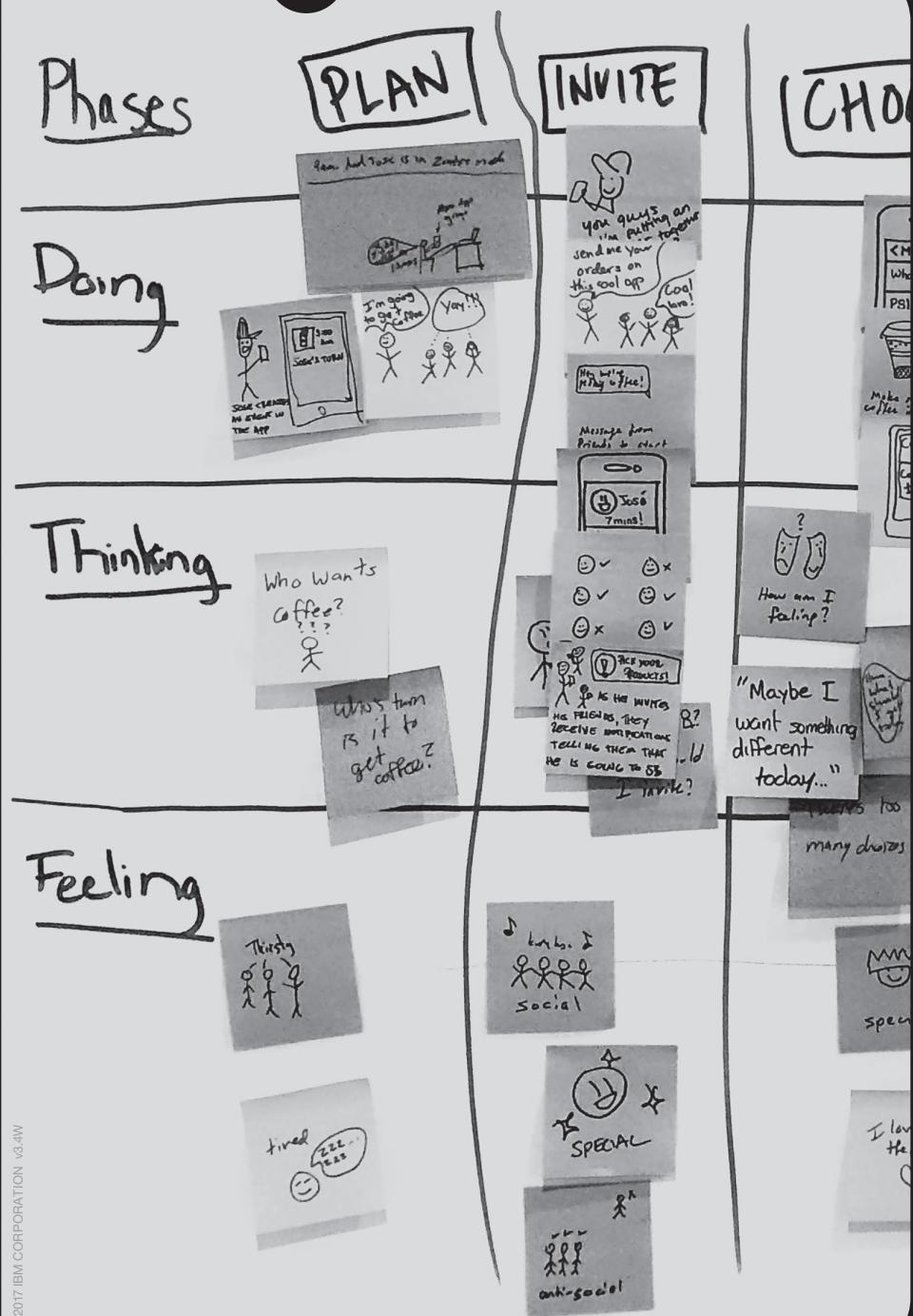
1. Draw four rows and label each: Phases, Doing, Thinking, and Feeling.
2. Fill in the phases, one per sticky note. Don't worry about what the "next phase" is; iterate through the scenario at increasing resolution until you are comfortable with the level of detail.
3. In parallel, team members should begin annotating each column with what the user is doing, thinking, and feeling.
4. Label unknowns (assumptions and questions) for later inquiry or validation.

## TAKE-BACK TIPS

**It's not about the interface.** Rather than focusing on the user's pathway through a product's user interface, pay close attention to the job tasks they actually perform in order to accomplish their goals.

**Warts and all.** When creating the As-is Scenario Map, it's important to articulate your user's *actual* current experience—don't neglect tasks or qualities that are not ideal or positive. Be honest and thorough.

**Check your math.** The solutions presented in a To-be Scenario Map should ideally be correlated to the "pain points" identified in the As-is.



# Big Idea Vignettes

## WHEN YOU MIGHT USE THIS

Once your team has a clear and validated understanding of your user's problems and challenges, this activity is a great way for many people to rapidly brainstorm a breadth of possible ideas.

## TIME

30–60 minutes

## INSTRUCTIONS

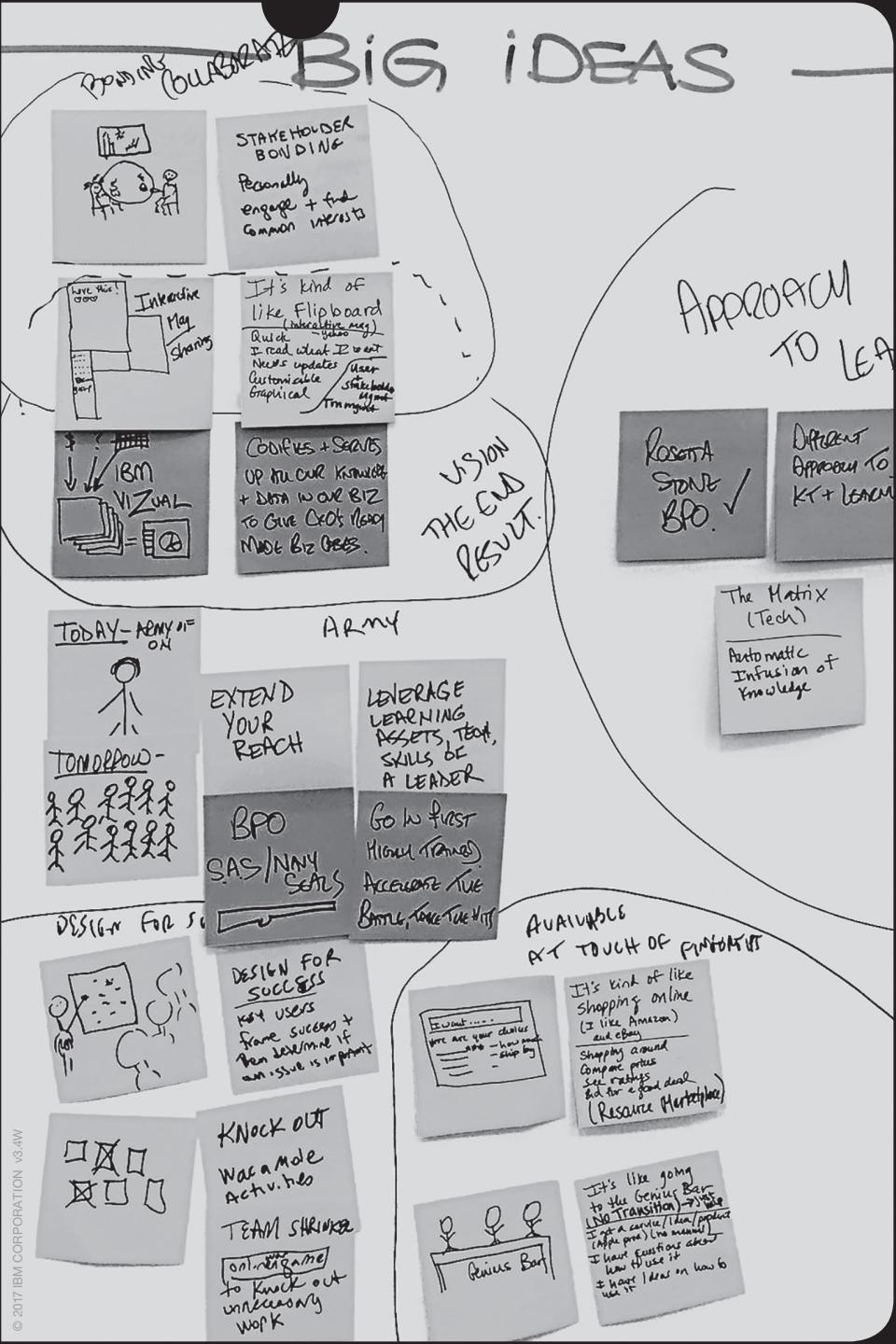
1. On one sticky note, write a brief overview of an idea or solution. Try labeling it with a one- or two-word headline.
2. On a second sticky note, sketch a visual depiction. Think of this as a single frame of a storyboard—for example, a rough prototype of a user interface or depiction of a user.
3. Diverge on many of these pairs of sticky notes (called “vignettes”) and quickly share them with your teammates.
4. Cluster similar ideas and converge on a set that you would like to take deeper using Scenario Maps or Storyboarding.

## TAKE-BACK TIPS

**Say yes to the mess.** Avoid evaluating or dismissing ideas while you're generating them—dedicate a period of time to get everyone's thoughts onto the wall and only then begin to discuss what's been shared.

**Everyone has ideas.** Don't make the mistake of leaving idea generation only to the designers, the engineers, the offering managers, or the executives. Everyone has a unique perspective on the user and the problem, so everyone should contribute ideas for solutions!

**Stay out of the weeds.** Evaluate which ideas are important and feasible (using a Prioritization Grid) before deep-diving into the details.



# Prioritization Grid

## WHEN YOU MIGHT USE THIS

When many items (such as ideas, Hills, scenarios, or user stories) are being considered, this activity helps your team evaluate and prioritize them by focusing discussions on importance and feasibility.

## TIME

30–90 minutes

## INSTRUCTIONS

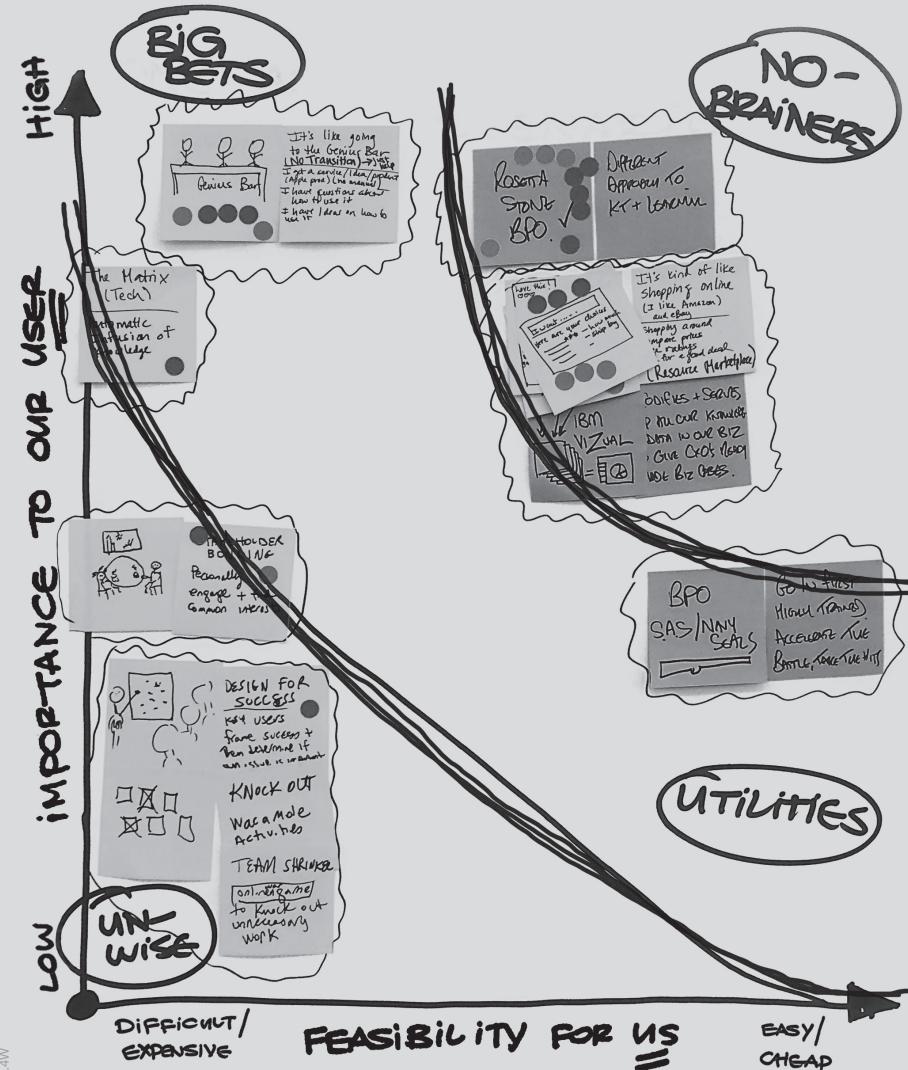
1. Draw two axes: Importance to the user (low to high) and Feasibility for us (difficult to easy).
2. Evaluate each item quickly and on your own—roughly plot them on the grid where they make most sense.
3. Once many items are on the grid, begin to discuss with your teammates and reposition them in relation to each other—do certain ideas seem more important or less feasible than others?
4. Avoid spending too much time discussing items that fall into the “unwise” zone unless you believe they have been mis-categorized.

## TAKE-BACK TIPS

**Importance is important.** Avoid considering *only* what is feasible, rather than what is feasible *and* what will have an important and market-differentiating impact for the user.

**Feasibility is more than the tech.** In addition to the technical perspective, feasibility also includes elements such as your go-to-market strategy and your head-count capacity to deliver.

**No-brainers are everywhere.** Your competitors will also be focused on the things that are highly important and feasible. (Why wouldn’t they? They’re impactful and easy.) Instead, focus your discussion on making “utilities” more impactful and on making “big bets” more feasible.



# Needs Statements

## WHEN YOU MIGHT USE THIS

This is a very effective activity to use with your team when you feel that you're drifting away from the actual needs, desires, and goals of your user. It helps reorient or reframe the work around your user.

## TIME

30-60 minutes

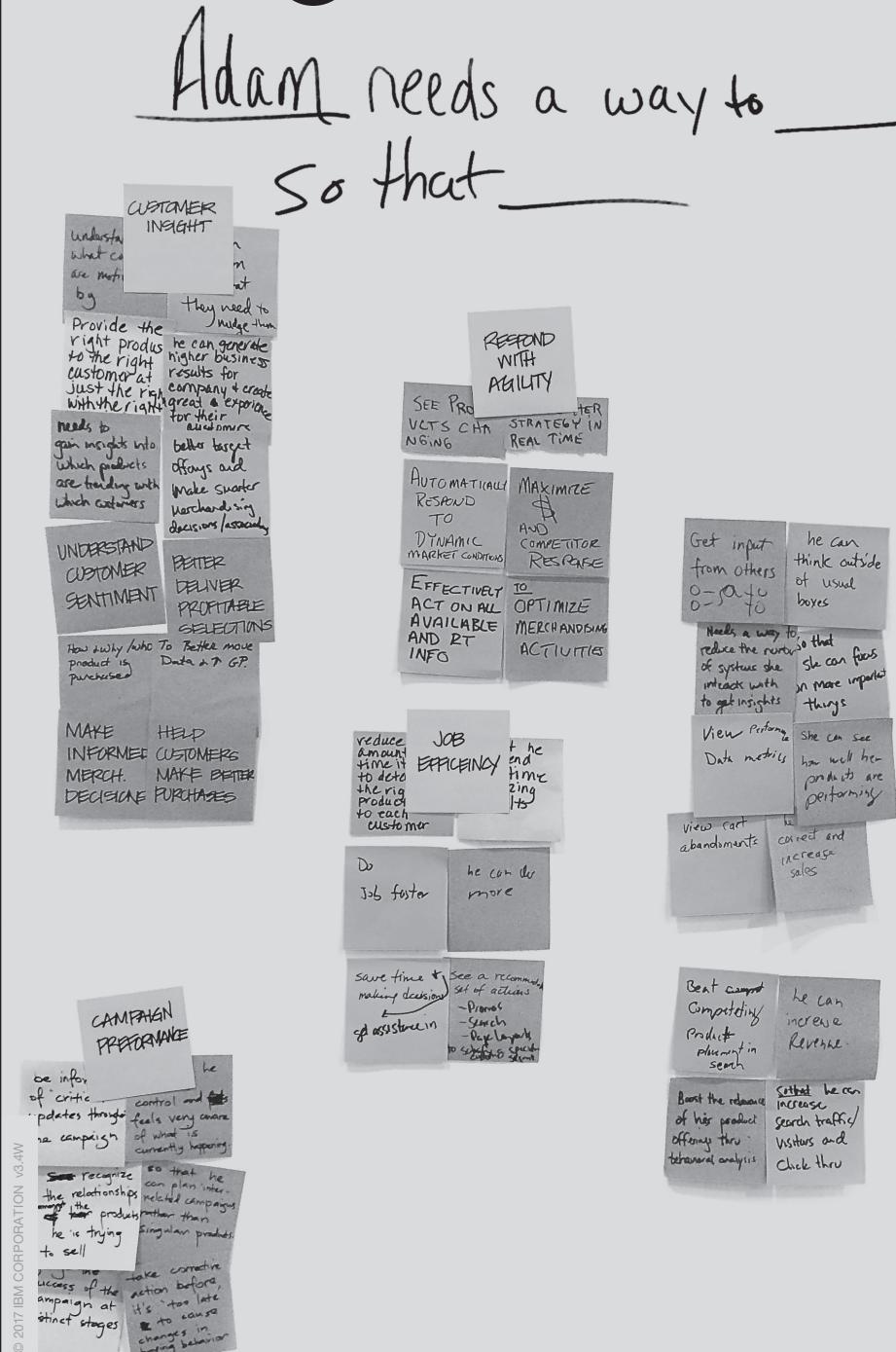
## INSTRUCTIONS

1. Write the statement: The user needs a way to do something that addresses their need so that they benefit directly.
2. Focus on your user's pain points—this helps get at what the underlying problems are. More than one Needs Statement can come from a single pain point.
3. Stay away from listing individual features. Instead, ask yourself, “What does my user really seek? What does she really want?”
4. Cluster similar ideas and discuss.

## TAKE-BACK TIPS

**Über Needs Statements.** After clustering several ideas together, try writing one big (“über”) Needs Statement that represents the entire group. Use the same “need/benefit” format.

**People aren't machines.** If an idea is expressed in terms of the machine (“dashboard,” “click,” “log in,” “export,” and so on), that's a clue it's actually a feature. Re-cast the idea in human terms of what the technology allows your user to accomplish.



# Storyboarding

## WHEN YOU MIGHT USE THIS

Storyboarding is a way to iterate and communicate ideas and scenarios *visually* by telling user-centric stories. If you're having a difficult time just *talking* about an idea, try some storyboarding.

## INSTRUCTIONS

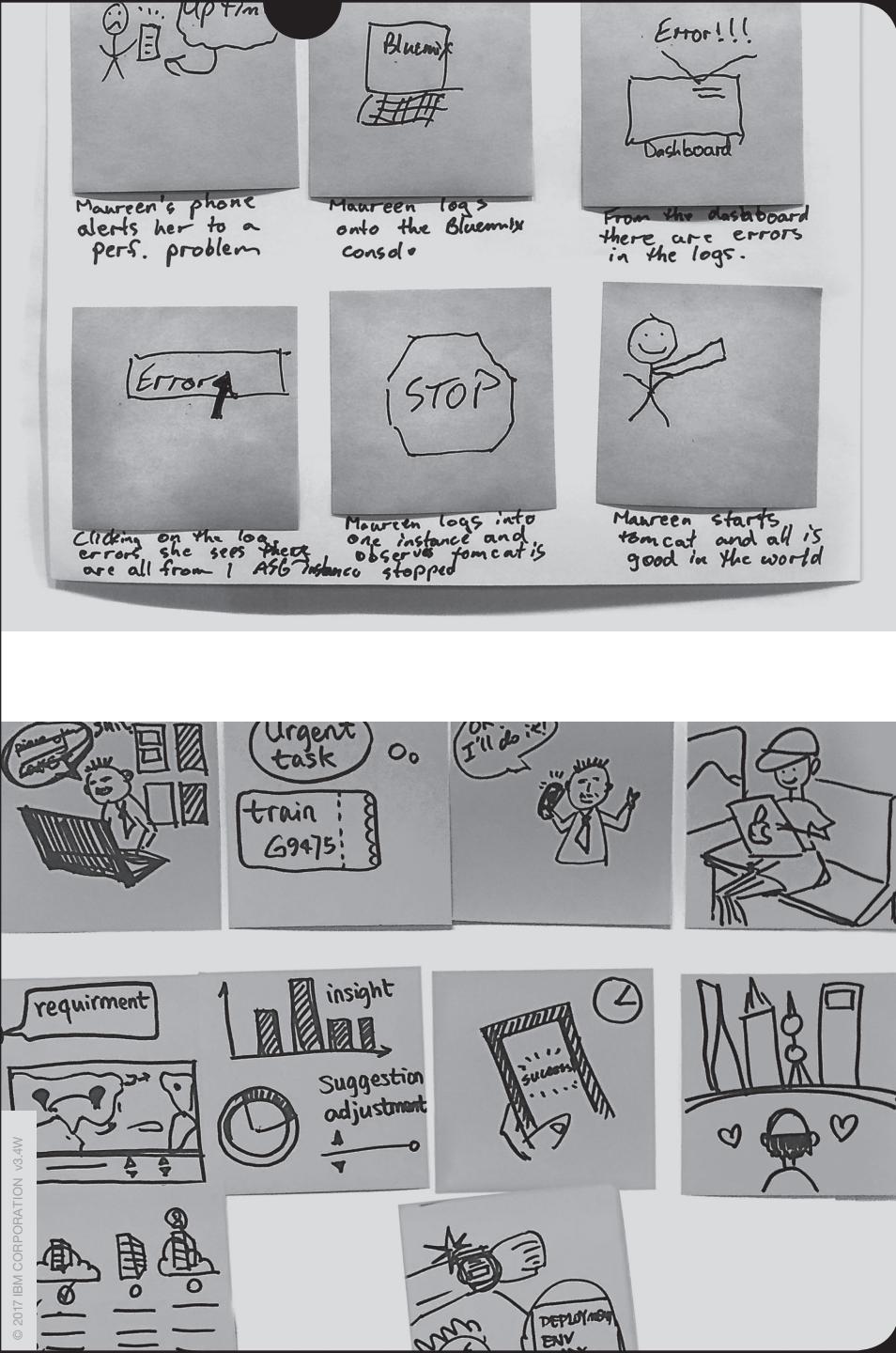
1. Imagine your scenario as a story with characters, a plot, conflict, and resolution.
2. Place six sticky notes ("frames") on a piece of paper. For each frame, draw a quick sketch and annotate with a brief caption.
3. Make the story seamless with a beginning, middle, and end.
4. Share your stories and get feedback.
5. To converge, choose the best parts of each teammate's story and weave them into one refined "master" story that's representative of the entire team's thinking.

## TAKE-BACK TIPS

**Comics aren't just for kids.** Try thinking of your storyboard like a comic strip. Combine quick sketches with speech and thought bubbles, action bursts, captions, and narration.

**This isn't wire-framing.** Avoid drawing too many screens. Instead, create a narrative that focuses on people and their actions, thoughts, goals, emotions, and relationships.

**Use Sharpies®.** Using a pen or a sharp pencil makes it too easy to include unnecessary high-fidelity details. Stay out of the weeds!



# Assumptions and Questions

## WHEN YOU MIGHT USE THIS

Any time you feel that your team's work needs a "reality check," use this activity to identify and prioritize what assumptions are being made, what you've been guessing about, and what your team still doesn't know.

## TIME

30–90 minutes

## INSTRUCTIONS

1. Draw a two-by-two grid with High-risk on the top, Low-risk on the bottom, Certain on the left, and Uncertain on the right.
2. Diverge, with each team member writing one assumption or question per sticky note.
3. Evaluate each item quickly and on your own—roughly plot them on the grid where they make most sense.
4. Once many items are on the grid, begin to discuss and reposition them in relation to each other—how certain are you in knowing the correct answer to the question, and how risky is it if you're wrong?
5. Focus the discussion on the items in the upper-right quadrant. These are the assumptions and questions that most urgently need further validation and inquiry.

## TAKE-BACK TIPS

**Do this early and often.** Risk will never disappear, but the sooner you recognize and evaluate your team's assumptions and questions, the more quickly you can act to reduce the risk they pose.

**Don't hold back.** Be honest about the questions you have and the assumptions you're making—even if you're afraid of appearing naïve. An unasked question will forever go unanswered.

Insurance can be inherited.

Inheriting insurance is legally accepted?

Really Automat  
How do we automatically inherit?

Can identify best contract timing.

Does Kazu truly need high payment for insurance?

CERTAIN

LOW RISK

HIGH RISK

UNCERTAIN

# Feedback Grid

## WHEN YOU MIGHT USE THIS

This activity helps to gather and organize any sort of feedback and to then unpack questions and ideas—either in real time or after-the-fact—as an efficient means of determining next steps.

## INSTRUCTIONS

1. Draw the grid and its four quadrants: Things that worked, Things to change, New ideas to try, and Questions we still have.
2. Fill in each quadrant with sticky notes. Be specific and give constructive criticism.
3. Cluster similar ideas and discuss. Search for patterns and themes.

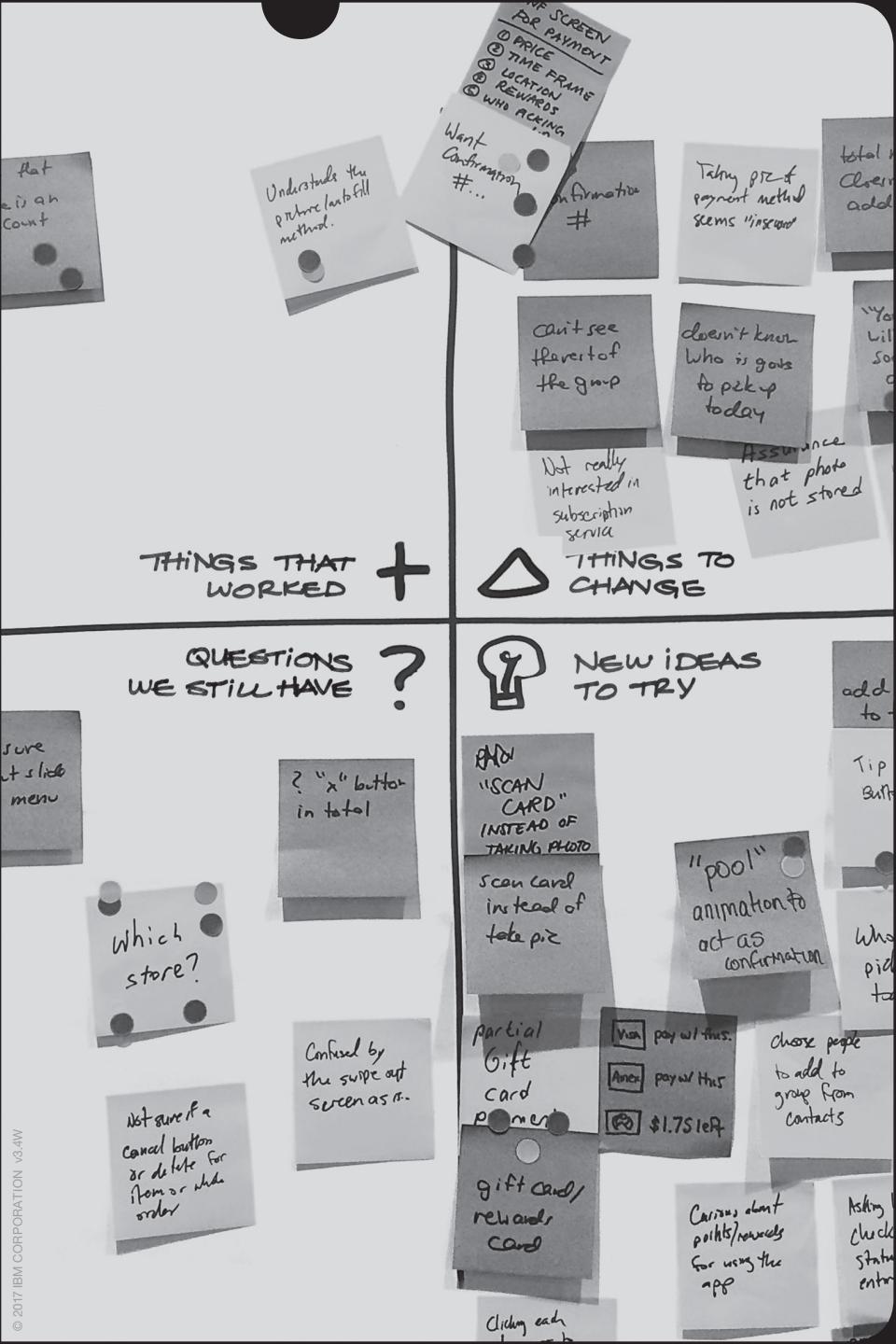
## TAKE-BACK TIPS

**The sooner, the better.** Use the Feedback Grid to capture ideas in real-time during a meeting or workshop. Or do the activity immediately following a Playback or a cognitive walk-through with a user.

**Take the next step.** Once you've developed and discussed a Feedback Grid, it's time to take action: Use the "Questions we still have" from the Feedback Grid to inform an Assumptions and Questions activity. Use the "New ideas to try" to begin Storyboarding. Or use the "Things to change" as the basis for a to-do list of action items for different team members.

## TIME

30–60 minutes



# Experience-Based Roadmap

## WHEN YOU MIGHT USE THIS

This activity helps you define a “minimum delightful experience” by scoping big, visionary ideas into more achievable near-term outcomes—while still focusing on the user experience.

## INSTRUCTIONS

1. Label three columns: Near-Term, Mid-Term, Long-Term. Write the statement: Our user can / Our user will be able to...
2. Begin writing ideas directly related to your vision and plotting them in the Long-Term column. Starting each idea with “Our user can...” or “Our user will be able to...” helps keep the ideas user-focused.
3. Scope down the long-term ideas by asking, “What is the most essential part of this experience?” Plot those ideas in the Mid-Term and Near-Term columns.
4. Once many ideas are on the grid, begin to discuss with your teammates and reposition them in relation to each other—do certain ideas need to be implemented in the near-term, or can they wait until a future release?

## TAKE-BACK TIPS

**Let them eat cake.** Many IBM teams use the metaphors of “Cupcake,” “Birthday Cake,” and “Wedding Cake” to describe the ideas on their roadmap, respectively, as being near-term, mid-term, and long-term.

**What will you learn?** The best roadmaps explicitly describe what you expect to learn at each stage. Once you deliver to market, what will you learn about your users, domain, product, capabilities, and competition? Use these learnings to further define your roadmap the next time around.

# OUR USER CAN / OUR USER WILL BE ABLE TO...

## NEAR-TERM

Ask questions of experts  
get enough information from person early on to build independently  
clear her app with Gary needs to match w/ clients so he can drive sales

find value in technology  
Understand the APIs  
add to dev cycle  
only test her app

She can build faster with less problems  
Build into her current platform  
identify patterns of services that solve industry problems  
visually compose multiple services

Know what else to add to her  
Gary needs to validate his map so that he can build a product that delights users  
Configure/test based on documented best practices  
build an app leveraging multiple APIs (recipes)

Gary needs to understand how to compose services so that he can make smart decisions  
properly size for runtime usage

love the API

report via co-comment  
Easily project costs

## MIDTERM

Quickly learn experiment and/or prototype  
Gary needs to match w/ clients so he can drive sales

know which API would work best for her application  
clear & consistently updated API handbook

visually compose multiple services

Gary needs to understand how to compose services so that he can make smart decisions  
properly size for runtime usage

See Usage  
Automatically track project costs

Have an off-site retrospective to review what went well and what didn't go well

Early get a view into Events, PR, news, up-to-date trends on the web that can affect the content

Report Revenue Early

## LONG-TERM

Bring app to market without talking to IBMers

Auto-provision necessary services (SSO)

Deploy pre-built app frameworks for patterns

Not think about scalability (infrastructure)

Report Revenue Early

view all other APIs that we...







MAKE  
BETTER  
THINGS



# IBM Design

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