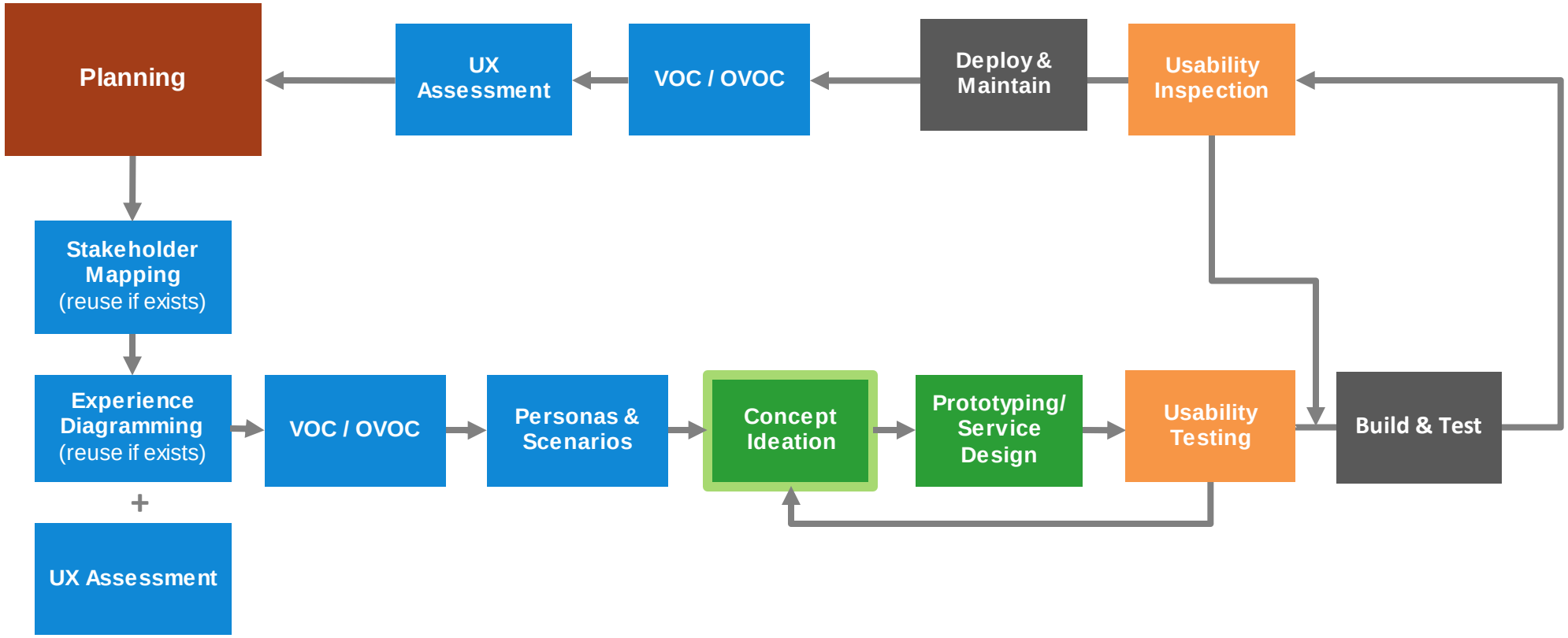
# The IT HUE Process



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# Concept Ideation

## What |

Concept ideation, as the term implies, is about forming ideas. Ideation is generally a cognitive task - it's something you do with your brain. Some people ideate best alone, others work better in teams.

Within the scope of design engineering, concept ideation is about looking at the requirements of a problem and coming up with a short description of the general class of product or services that can satisfy the requirements.

## Why |

The result of the concept ideation phase should be at least one, but preferably two or three ideas that are substantively different.

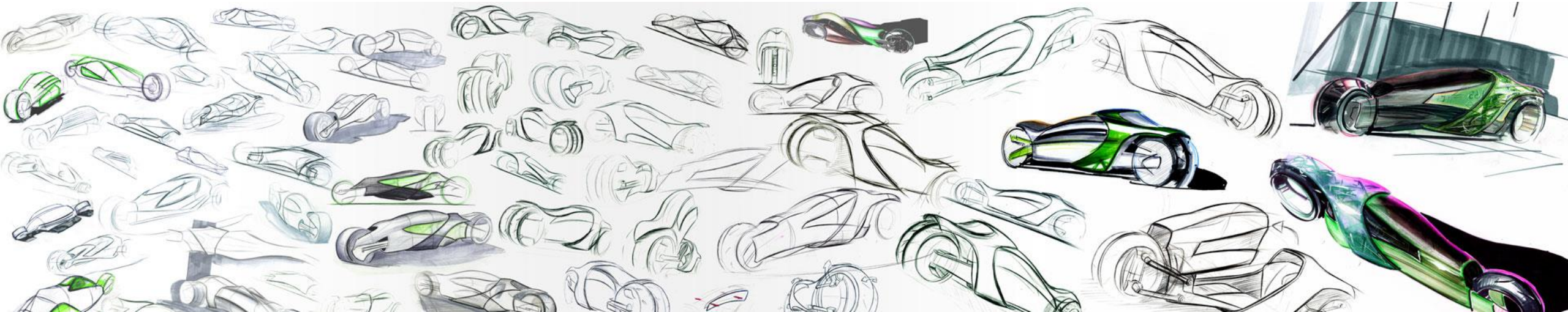
# **Concept Ideation |** What

## Example:

The design problem is: design a highly innovative urban vehicle that could be brought into production within the five years.

Some possible ideas include:

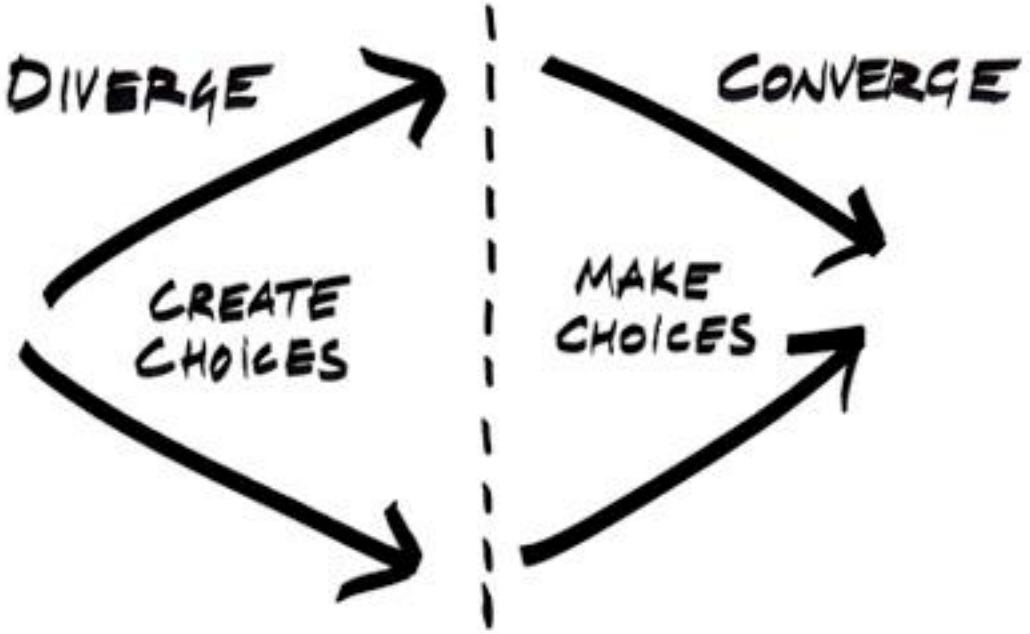
- a motorized scooter with a shell to cover it
- a motorized rickshaw
- a front-to-back symmetric two-seat, fuel-cell powered car
- a ATV for city-driving
- Notice that **none** of the ideas address **all** of the design issues.



# Concept Ideation | How

## Ideation

- Don’t shoot for the one solution right away, but first explore options!
- Utilize the knowledge gained in the UNDERSTAND phase!



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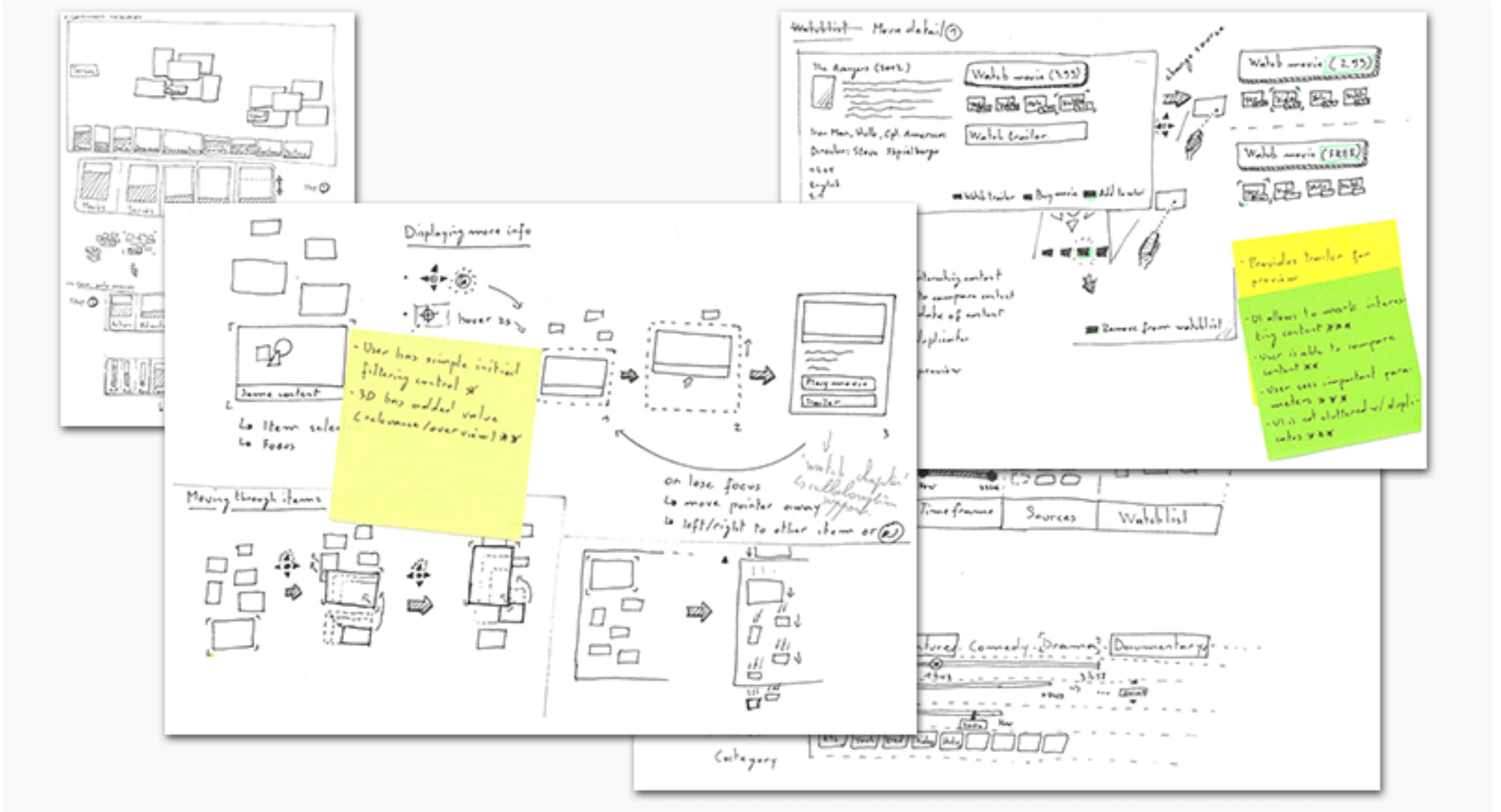
# Concept Ideation | How



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# Creative Matrix

- A format for sparking new ideas at the intersections of distinct categories.

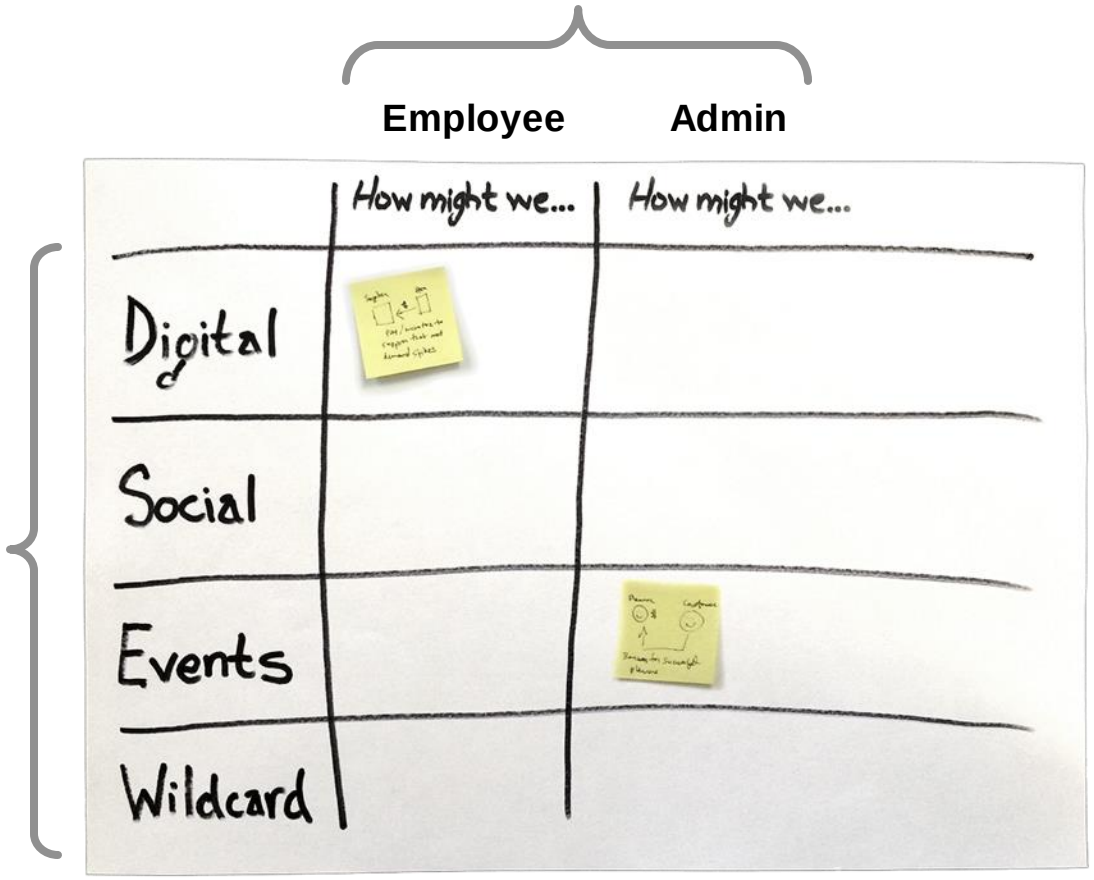
- Breakthrough ideas are most often “intersectional” and occur when we bring concepts from one field into a new, unfamiliar territory.

**COLUMNS**
(related to people here but can be Problem Statements too)

- **Primary personas (in this example)**
- Cluster themes (“How might we… questions)
- Service touchpoints

**ROWS** (ENABLERS)

- Emerging tech
- Cultural drivers
- Market trends



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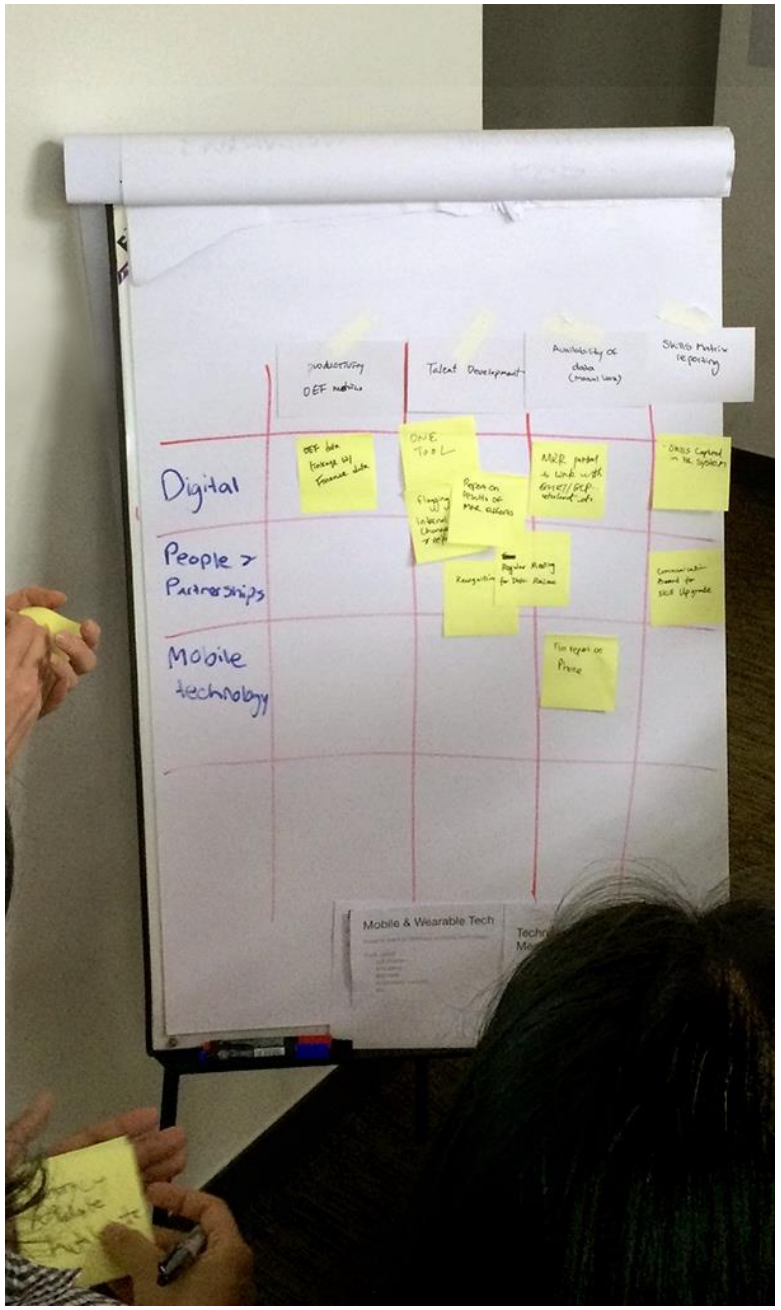
# ACTIVITY: Creative Matrix

## Exercise within your teams

1. Draw 4 rows and 2 columns
2. Place 1 persona for each column
3. Select 3 enabler cards and place at the start of each row
4. Generate as many ideas as possible for each intersection

## Rules

- One idea per sticky
- Quickly sketch an idea on each sticky
- No idea is bad
- Focus on the persona's experience
- Focus on What, not How
- At least 1 idea in every cell



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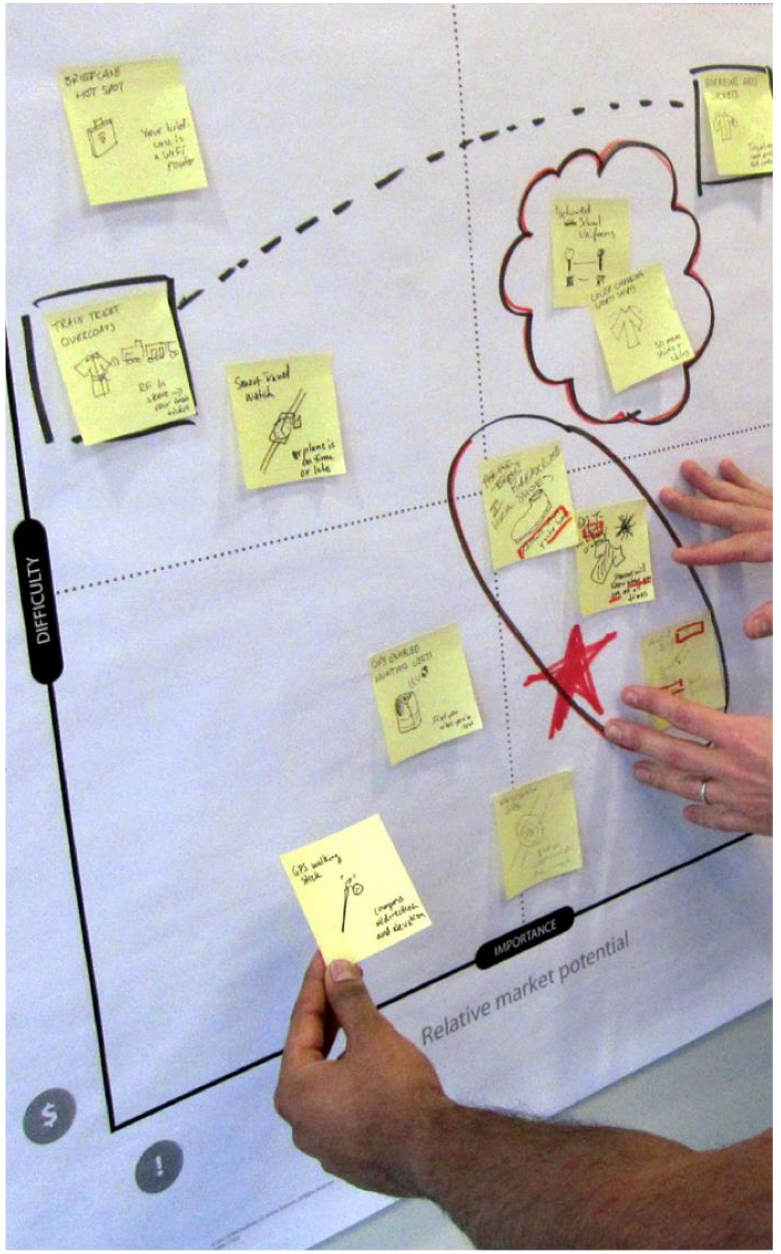
# Importance / Difficulty Matrix

## Demonstration – 1 Volunteer Team

1. Draw X Axis – Importance
2. Arrange ideas along X axis - relative importance to the business, such as *cost takeout* and *productivity*.
3. Draw a Y Axis – Difficulty
4. Arrange ideas along the Y axis in order of relative difficulty, considering cost, time or other execution factors.
5. Circle groups of ideas that might be executed together.
6. Focus future efforts on High Return On Investment.



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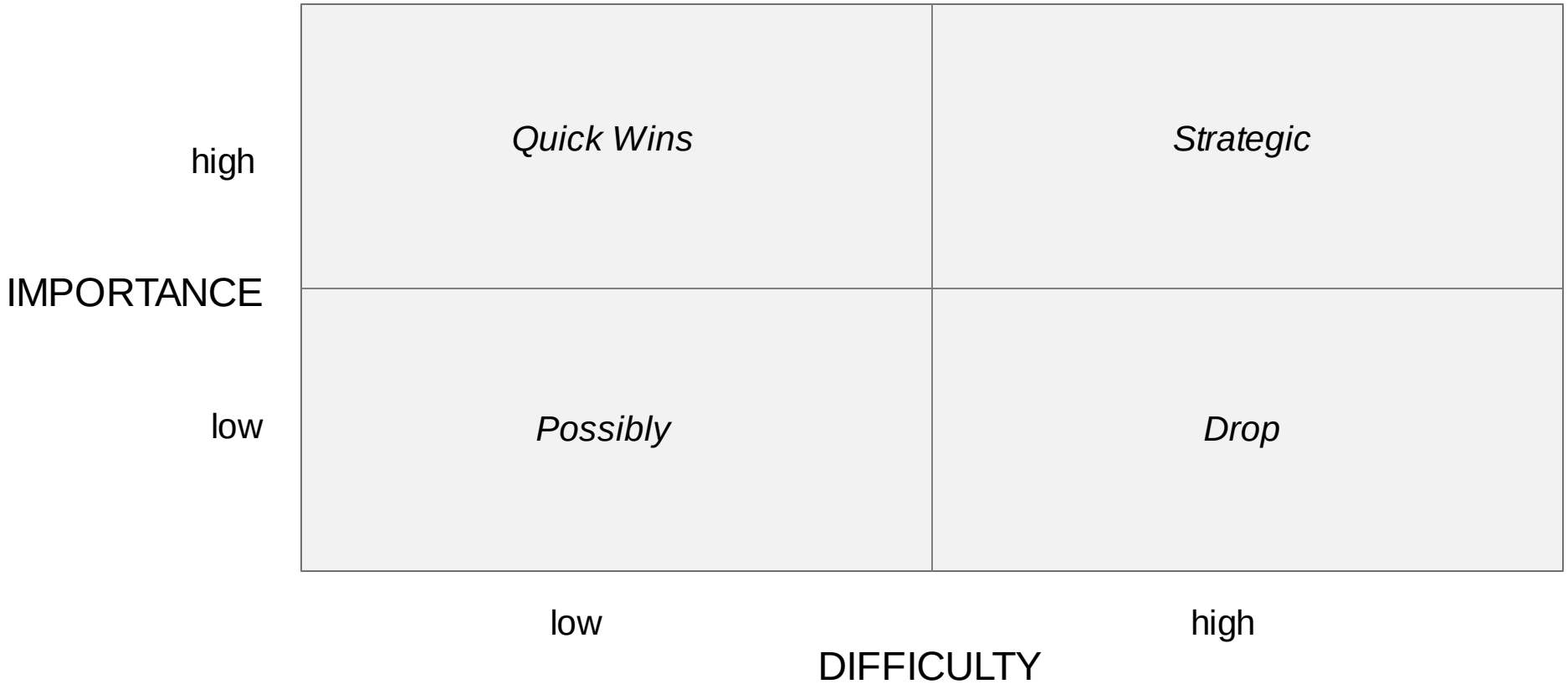
# Importance / Difficulty Matrix



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# Information Architecture

Information architecture is the creation of a structure for a website, application, or other project, that allows us to understand where we are as users, and where the information we want is in relation to our position.

- “The design before the design”
- The art and science of organizing and labelling websites, intranets, online communities and software to support usability.
- What content belongs together? What should be on one screen?

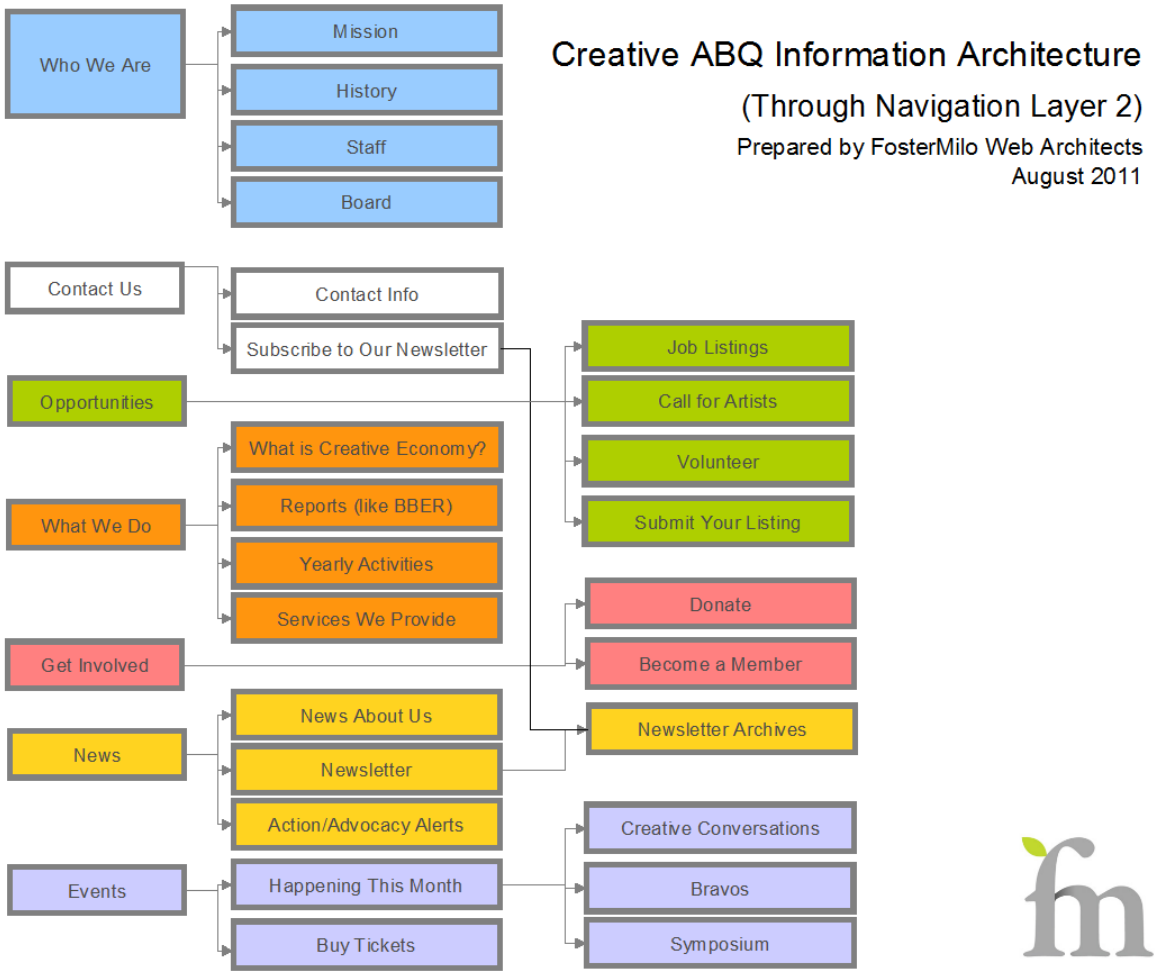
**Summary:** IA is the information backbone of the site; navigation refers to those elements in the UI that allow users to reach specific information on the site.

# What is Information Architecture

A website's (or intranet's) information architecture has two main components:

- identification and definition of **site content/functionality**
- the underlying organization, structure and nomenclature that define the **relationships** between a site's content/functionality

The information architecture (IA) is not part of the on-screen user interface (UI) — rather, **IA informs UI**. The IA is documented in spreadsheets and diagrams, not in wireframes, comprehensive layouts (known as comps), or prototypes.



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# IA - Card Sorting

- Card sorting is a great exercise for exploring how people group items into categories, and how they relate concepts to one another.

- In design, this approach is typically used for developing digital interfaces and tables of contents, but it has broader research applications too.



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# IA - Card Sorting

Card sorting can help identify trends, such as:

- Do the users want to see the information grouped by subject, process, business group, or information type?
- How similar are the needs of the different user groups?
- How different are their needs?
- How many potential main categories are there? (typically relates to navigation)
- What should those groups be called?




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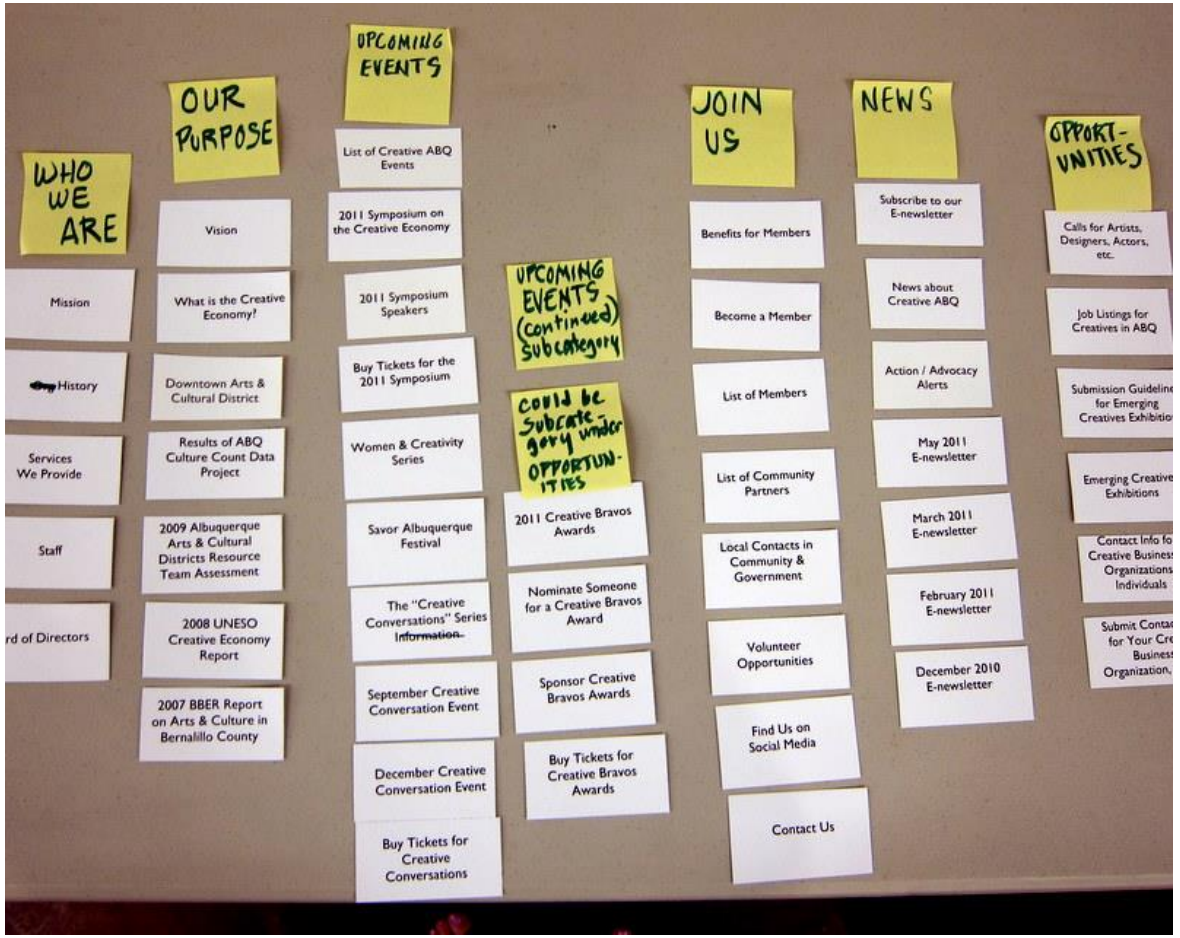
# IA - Card Sorting

## Why Card Sorting?

This can be a great tool whenever you need to investigate user comprehension, generate options for structuring information or create meaningful categories for a topic of interest (e.g. understand the different ways in which users group brands and categories).



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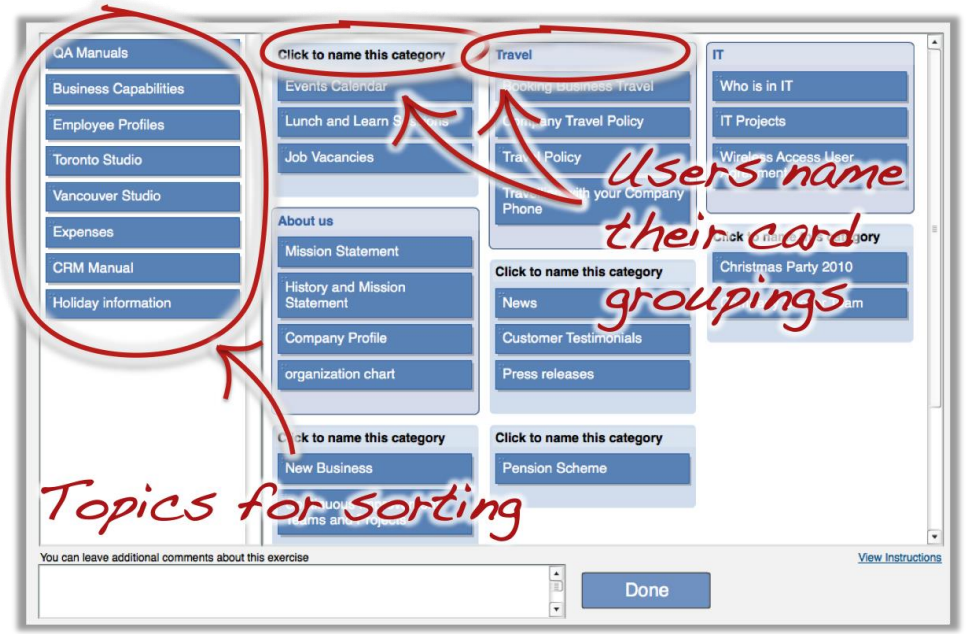
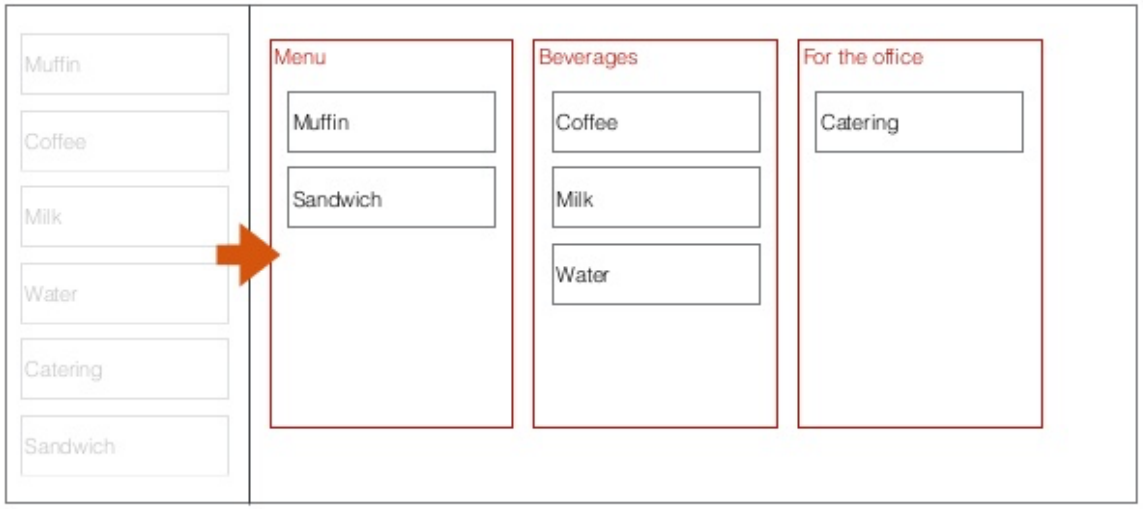
# Card Sorting Methods

There are two primary methods for performing card sorts.

**Open Card Sorting:** Participants are given cards showing site content with no pre-established groupings. They are asked to sort cards into groups that they feel are appropriate and then describe each group. Open card sorting is useful as input to information structures in new or existing sites and products.

**Closed Card Sorting:** Participants are given cards showing site content with an established initial set of primary groups. Participants are asked to place cards into these pre-established primary groups. Closed card sorting is useful when adding new content to an existing structure, or for gaining additional feedback after an open card sort.



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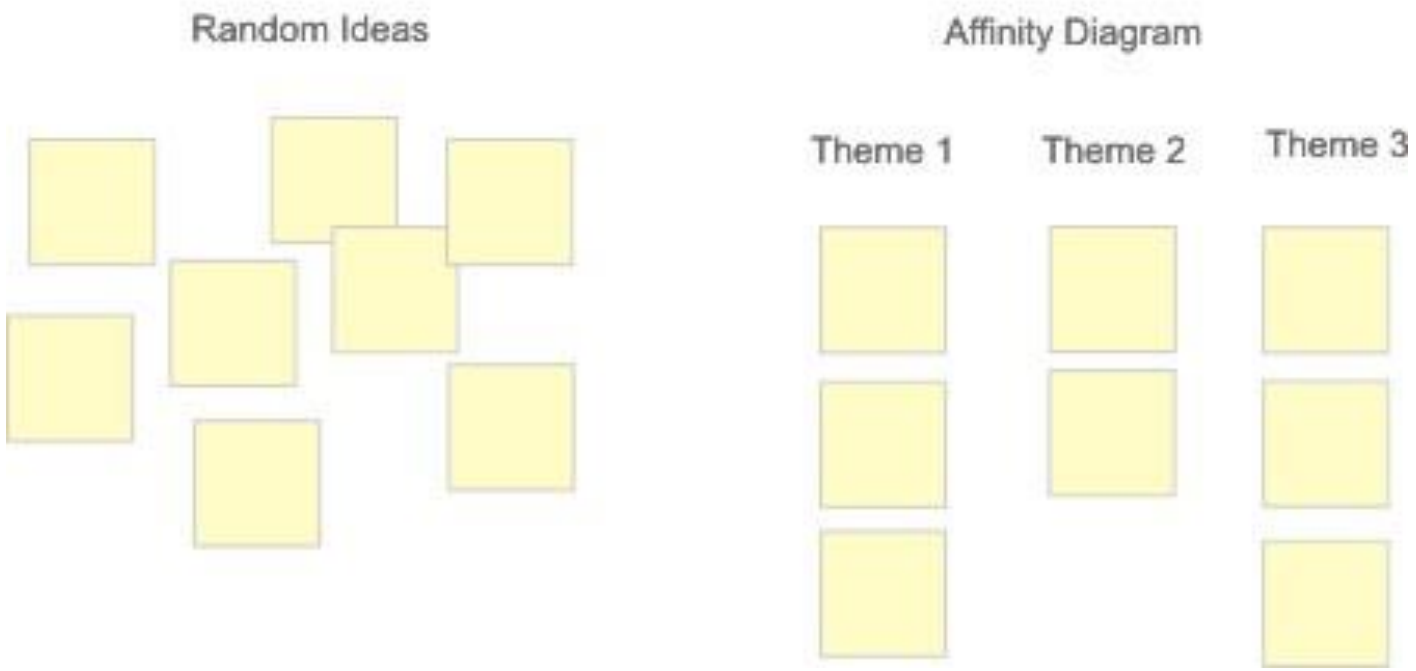
# IA – Affinity Diagramming

Affinity diagramming is a great way to synthesize and categorize large amounts of data by finding relationships between ideas.  We tend to use them often for making sense of user research data.



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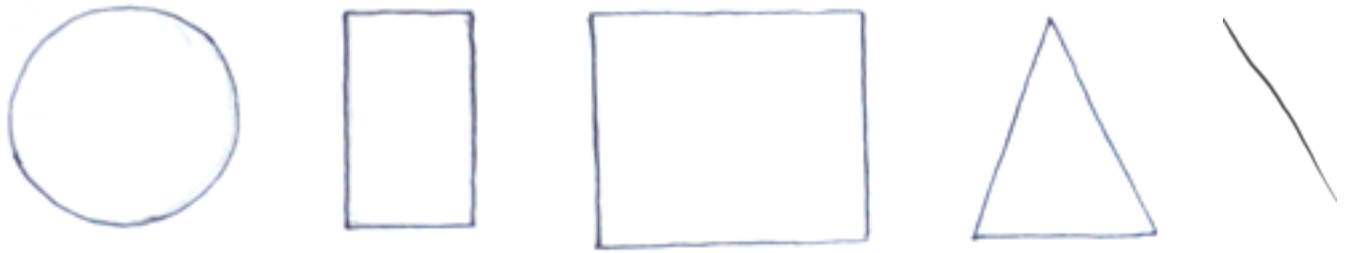
# Sketching

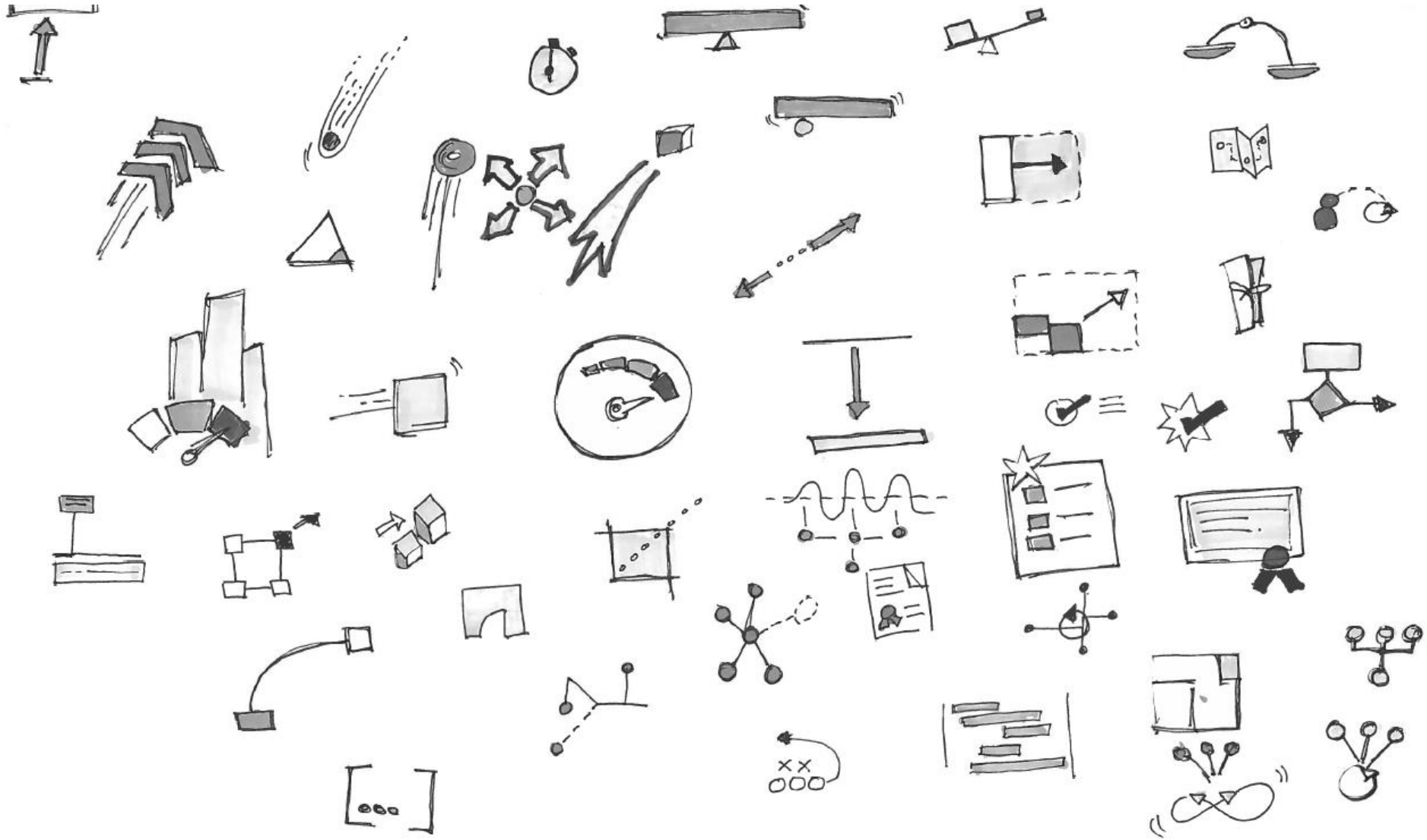
- Purpose of sketching is to visualize concepts, ideas, UIs so that they can be communicated, discussed and critiqued.
- “But I can’t draw!”

Can you do this?



You’re in!

# Sketching





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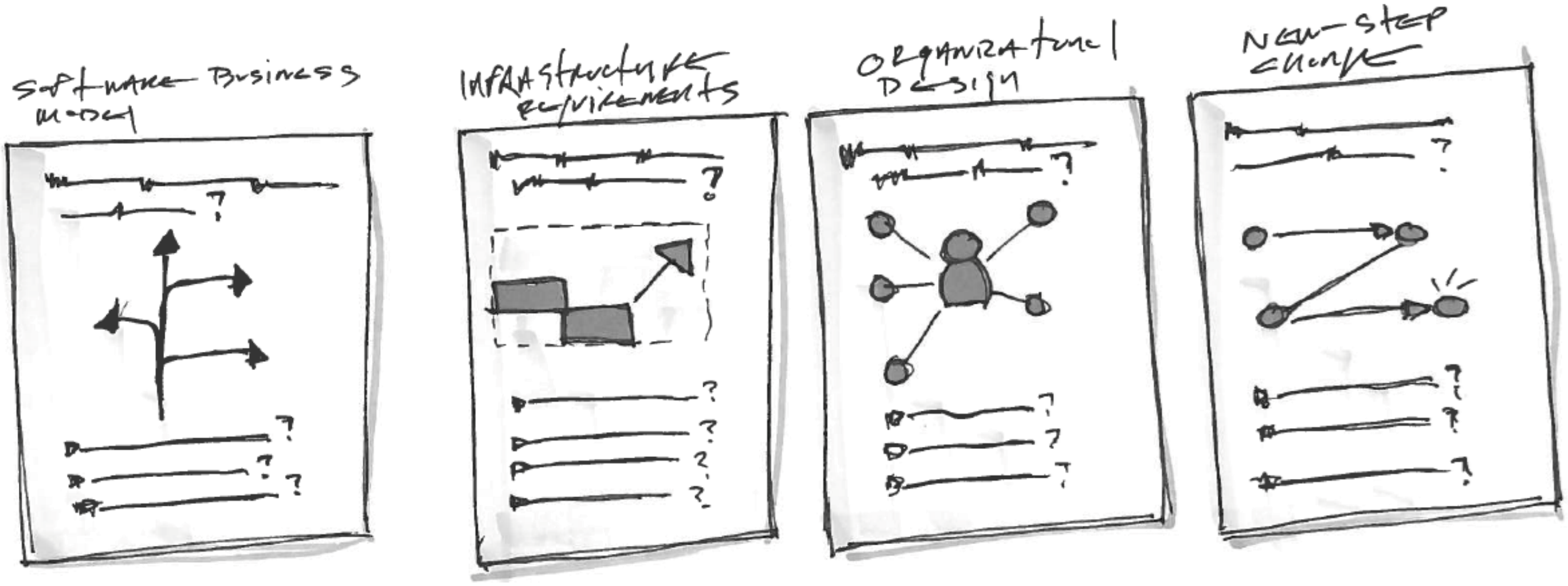
# Sketching



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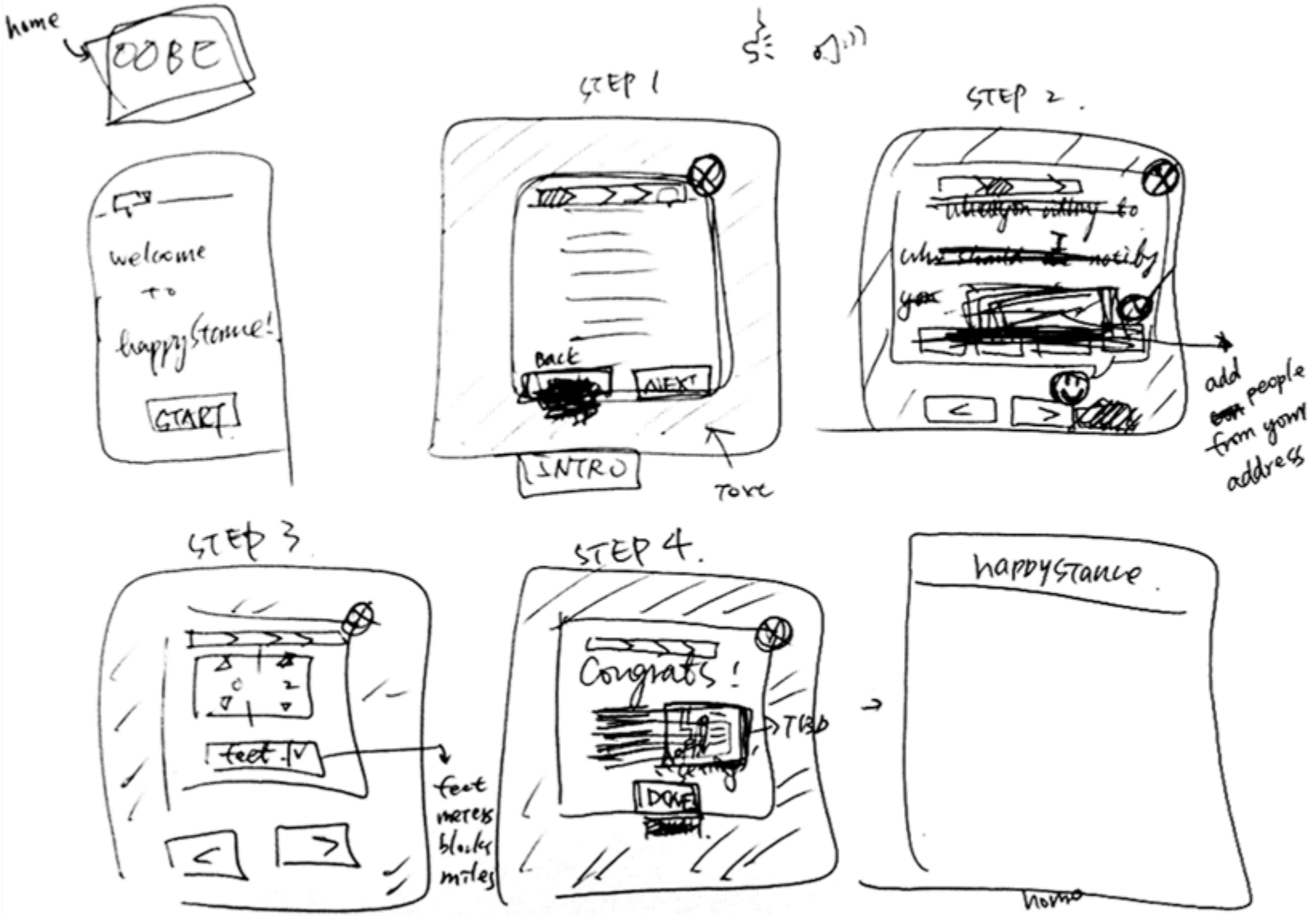
# Sketching



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# Sketching

- Focus is NOT on depth, precision or beauty, but on generating UI approaches. In other words: the left side of the diamond


- Think of it as visual brainstorming



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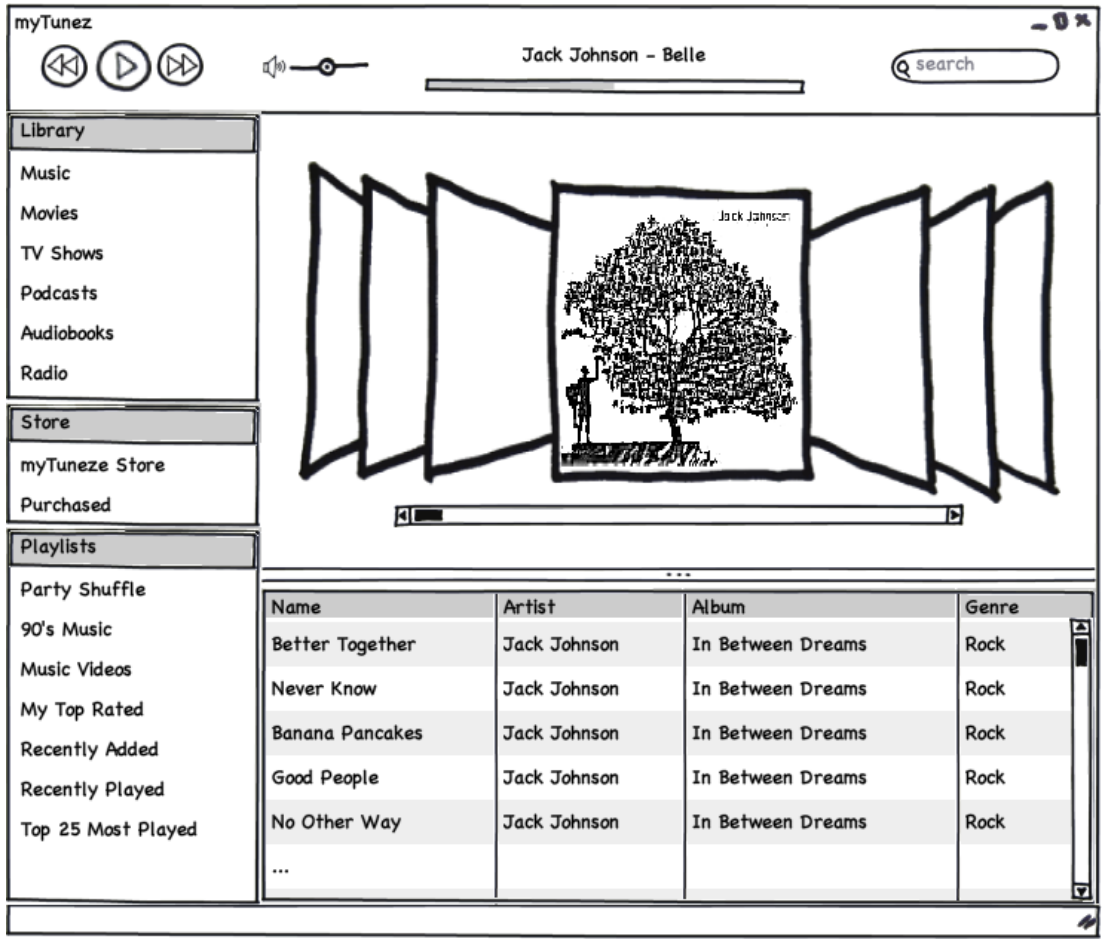
# Wireframing

What is a wireframe?

- A grayscale drawing of a UI that represents layout, principal content and functionality
- Does not contain styling
- Similar to the way blueprints show a house without interior design
- Could have minimal clickability, making it a prototype

→ Skeleton version of a digital product



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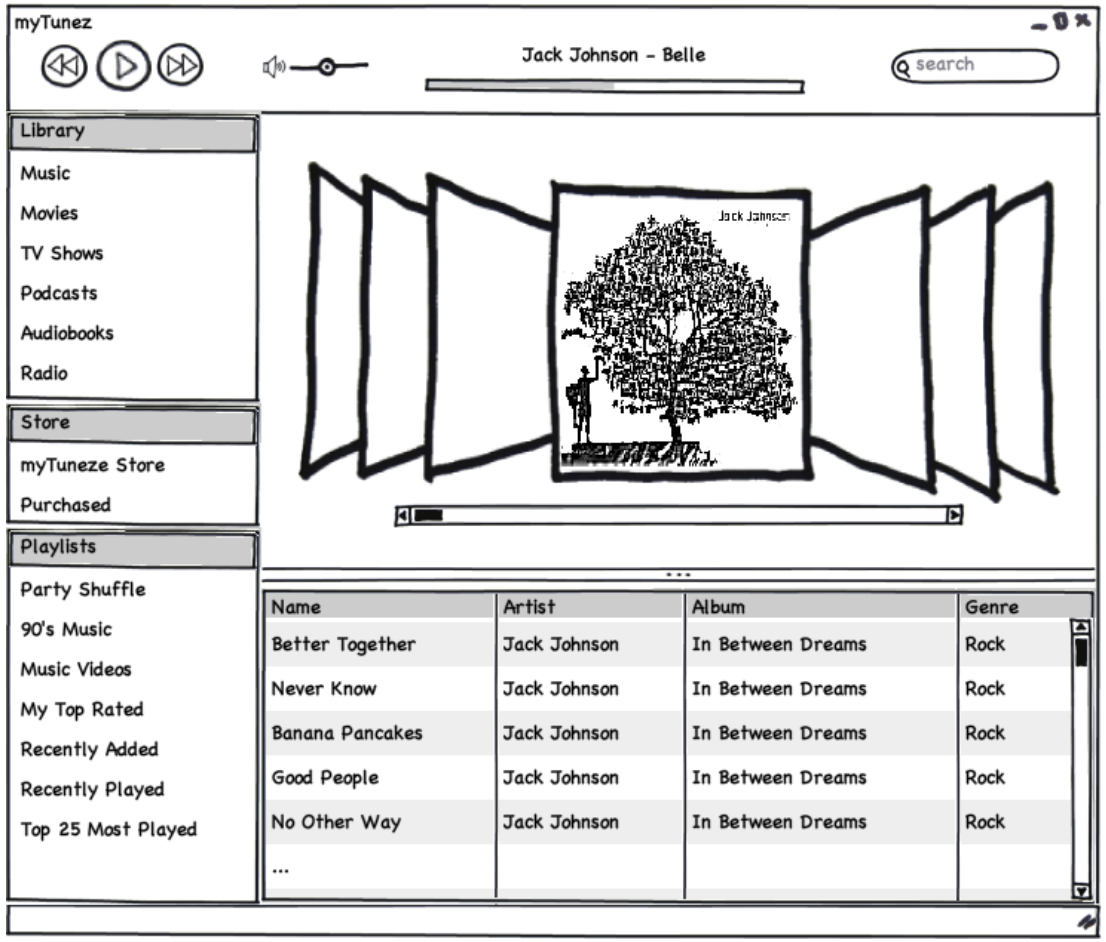
# Wireframing

Why wireframing?

- More detail than a sketch → helpful for SMEs and users to understand the design intent
- Less detail than running code → cost-efficiency



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# Activity: Wireframing

Back to our Daycare Camera system, make a wireframe to illustrate one or two of your ideas about what a landing page would look like.

- Include at least 2 interactive elements.


- Timing: 60 minutes
- Output: 1 homepage wireframe with minimal click-ability



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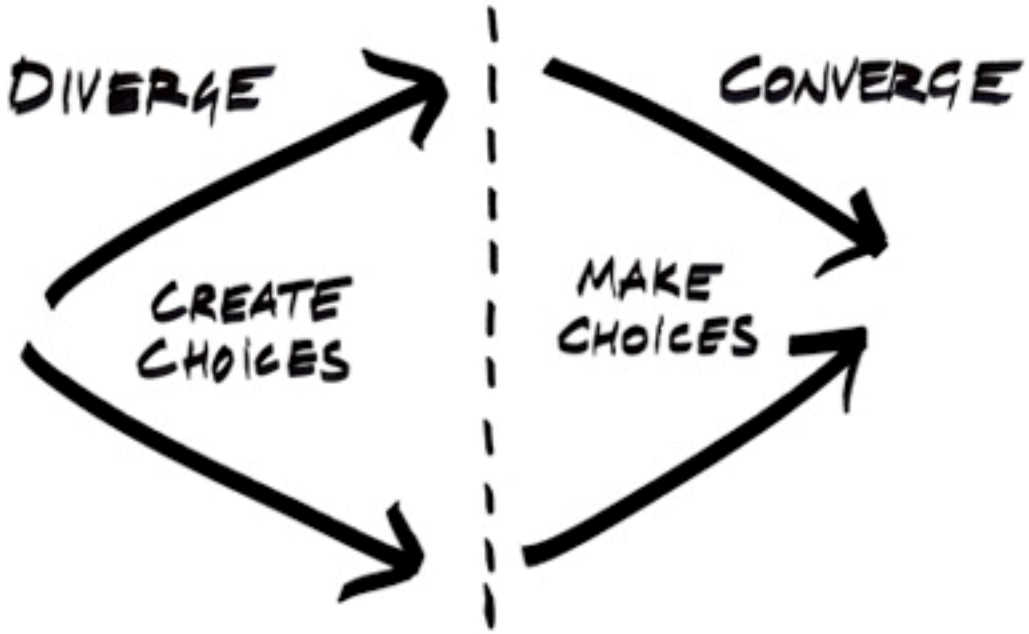
# Decide on direction

- Now that you have well-informed options, review, discuss, argue, critique them.
- Identify strengths & weaknesses of each option, try to combine strengths into a new option




- Next step:
  - Follow through on design direction and work out the details
  - Iteratively prototype to take the concept experiential for stakeholders and users



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# Quiz

Which is not a part of Information Architecture?

A. Card Sorting
★ B. Wireframing
C. Affinity Diagramming
D. Ideation




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# Concept Ideation Steps



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# Concept Ideation Steps Overview

| | | | |
|---|---|---|---|
| Ideate | 1 | Generate Ideas | Generate as many as possible ideas or approaches to solve the problem at hand, e.g. by using a creative matrix. |
| | 2 | Identify Key Ideas | Identify key ideas coming out of the idea generating discussion as a team e.g. by using a difficulty-important matrix to prioritize ideas. |
| Draw | 3 | Rough Wireframes | Identify features belonging to target and strategic quadrant and visualize the solutions using rough wireframes. |
| | 4 | Prioritize Content | Use wireframes to connect, clarify, determine, and prioritize content. |
| | 5 | Low Fidelity Wireframes | In the beginning of the project, use low fidelity wireframes to represent various approaches to the solution. |
| Share | 6 | High Fidelity Wireframes | Once a concept is selected, create high fidelity wireframes to capture more details like behaviors, actions and interaction of elements |
| | 7 | Store & Share | Store report as project artefact on project share drive |



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# Step 1: Generate Ideas

Generate as many as possible ideas or approaches to solve the problem at hand, e.g. by using a creative matrix with Problem Statements.

## Creative Matrix:

- In the columns identify 4-5 key problem statements that need to be addressed.
- In the rows identify enabling solutions like program, communication, technology etc.
- Use post-its to identify ideas to solve each of the problems with the enabling solutions.
- You can reserve a wildcard row and column to gather out-of-the norm ideas




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# Step 2: Identify Key Ideas

Identify key ideas coming out of the idea generating discussion as a team e.g. by using a difficulty-important matrix to prioritize ideas.

## Difficulty-Important Matrix:

The y-axis represents difficulty and x-axis represents importance.

- Top left quadrant represents luxury
- Top right corner represents strategic
- Bottom left is target, and
- Bottom right quadrant is low value




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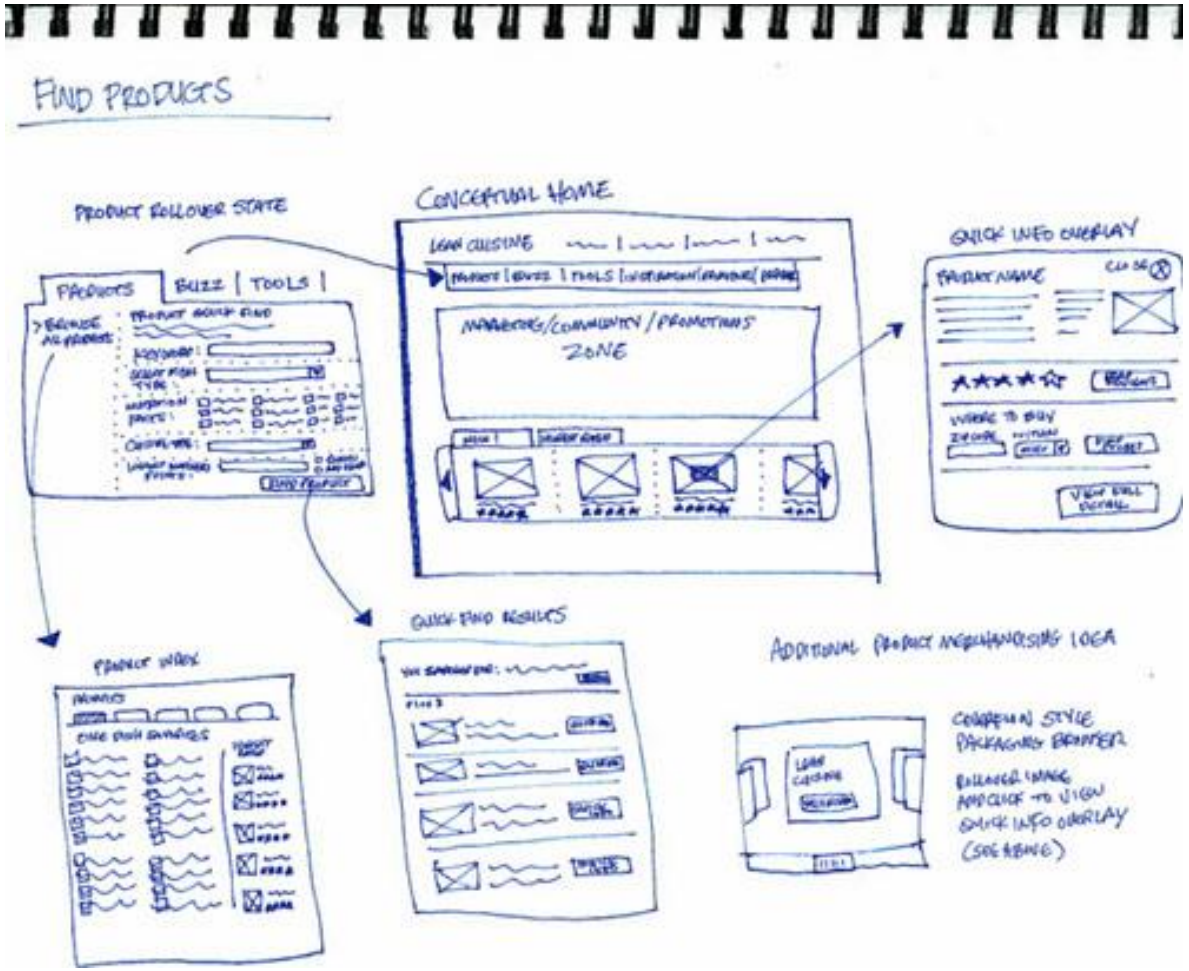
# Step 3: Rough Wireframes

Identify features belonging to **target** and **strategic** quadrant and visualize the solutions using rough wireframes. While creating wireframes:

- Do not use colors. If you would typically use color to distinguish items, instead rely on various grey tones to communicate the differences.

- Do not use images. Images distract from the task at hand.  To indicate where you intend to place an image and its size, you can instead use a rectangular box sized to dimension with an “x” through it.



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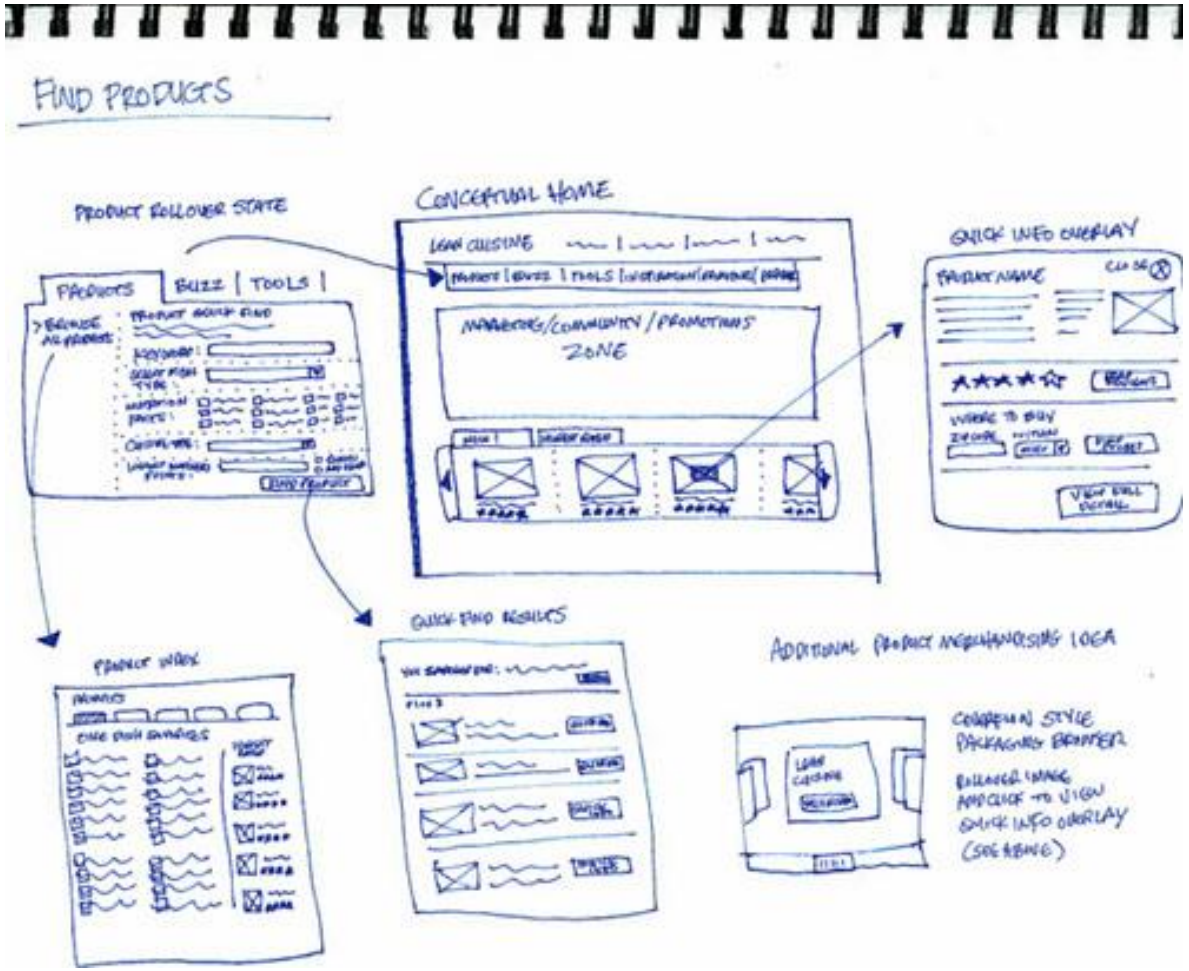
# Step 3: Rough Wireframes

- Use only one generic font.
- Typography should not be a part of the wireframing discussion.
- Within the wireframes, however, you may still resize the font to indicate various headers and changes in the hierarchy of the text information on the page.



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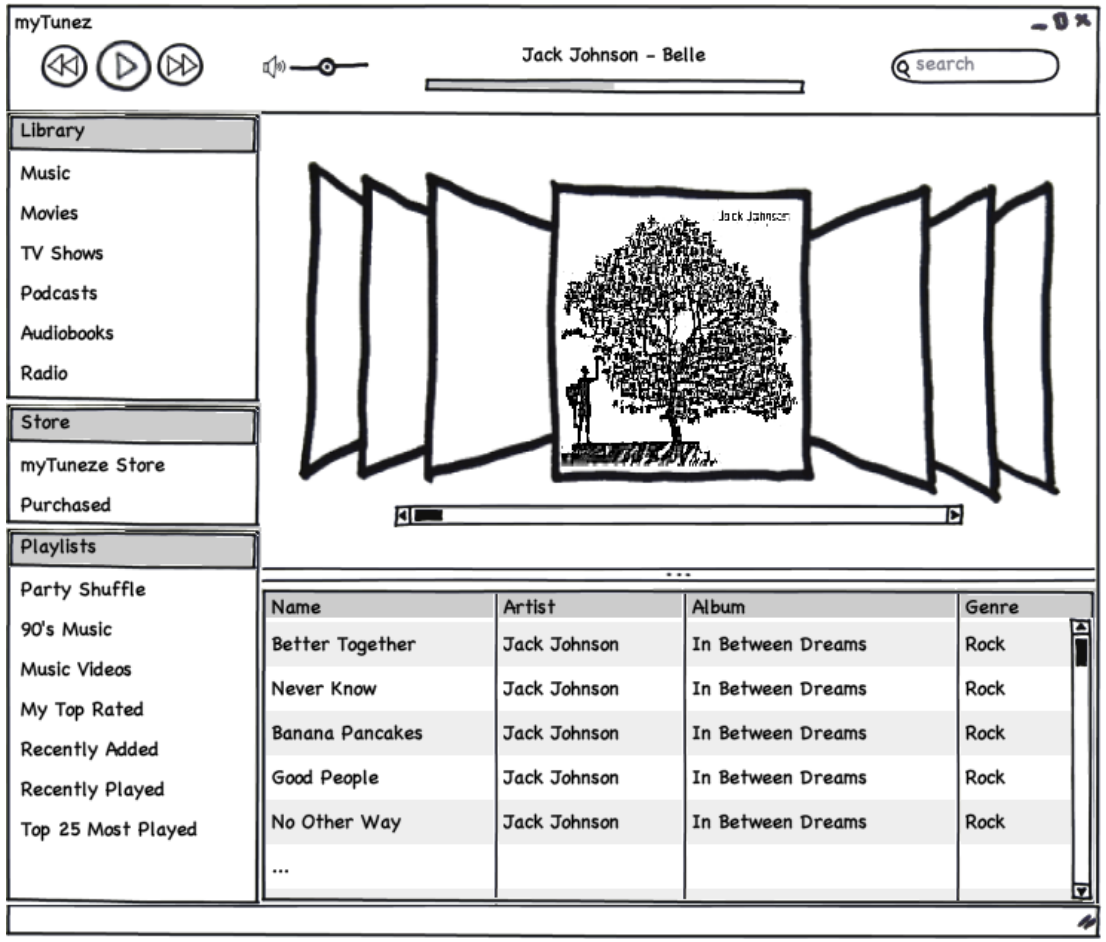
# Step 4: Low Fidelity Wireframes

## Use wireframes to:

- Connect the site's information architecture to its visual design by showing paths between pages.
- Clarify consistent ways for displaying particular types of information on the user interface.
- Determine intended functionality in the interface.
- Prioritize content through the determination of how much space to allocate to a given item and where that item is located.



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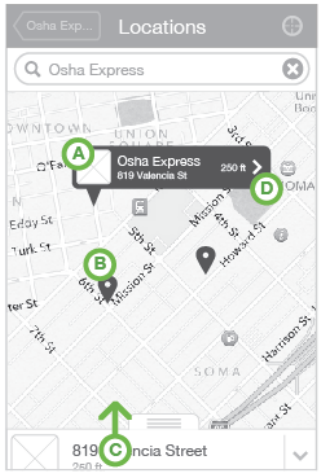
# Step 5: Increasing Wireframe Fidelity

- In the beginning of the project, you use low fidelity wireframes to represent various approaches to the solution.
- The wireframes could be sketched or drawn on drawing board.
- Use these rough ideas to facilitate project team communication.
- Use it to quickly gather feedback from users/stakeholders/project team.
- As you resolve the content and layout considerations, a higher fidelity wireframe will come about. Usually in design tool such at Sketch or Axure.

# Step 6: Select Concept

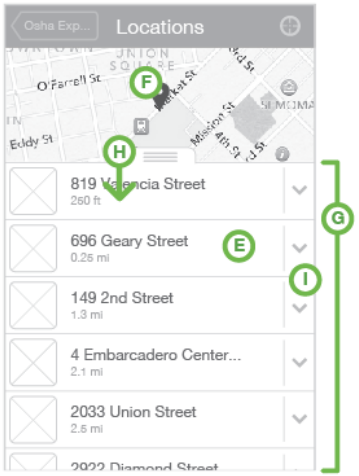
Once a concept is selected, create high fidelity wireframes to capture more details like behaviors, actions and interaction of elements

**Locations**
Full Map



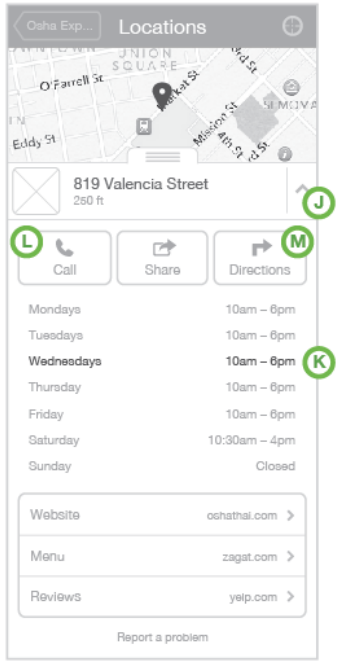

- **A** Initially Opened Pin is always the nearest location. Only one pin is Opened at a time.
- **B** Tapping on any pin changes it to the Opened Pin, and centers the pin in the map window.
- **C** Tap or tap-drag to maximize/ slide up the List View.
- **D** Tapping Opened Pin goes to that location's List View Open.

**Locations**
List View Collapsed



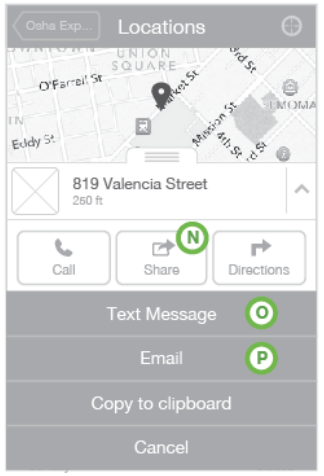

- **E** Tapping any address in the list moves the map to center that location's pin.
- **F** Opened Pin closes in this view.
- **G** List window is scrollable. Height is constrained.
- **H** Dragging the list window's gripper down collapses it back to Full Map view. Hit target should be a little larger the than gripper's appearance.
- **I** Tapping any down-arrow moves that address to top of list, slides open the List View Open screen in a drawer below the address, and hides the rest of the addresses in the list.

**Locations**
List View Open



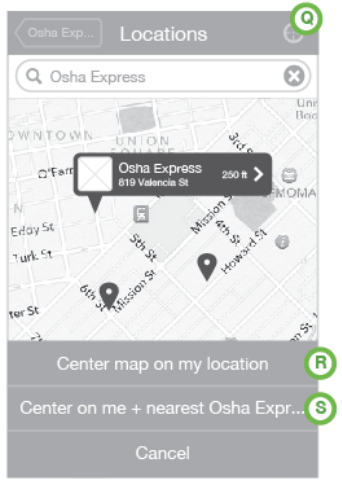

- **J** Tap to close List View Open, back to List View Collapsed view.
- **K** Today is highlighted.
- **L** Call opens Phone app and dials location.
- **M** Directions opens Maps app, preferably with Directions shown.

**Locations**
List View Open - Share Popup




- **N** Share slides up the overlay, nailed to bottom of screen.
- **O** Text Message opens iOS Messages app with contextualized message e.g. "Meet me at Osha Express. Address, etc., link, etc."
- **P** Email opens iOS Mail app with contextualized message.

**Locations**
Current Location Options




- **Q** Tap icon to center map on user's current location using Location Services.
- **R** Moves map to center on user's position (no zoom) Keeps all merchant pins open, even if they are not viewable in the map window anymore.
- **S** Zooms out to show only one pin (nearest merchant location), plus user's position.



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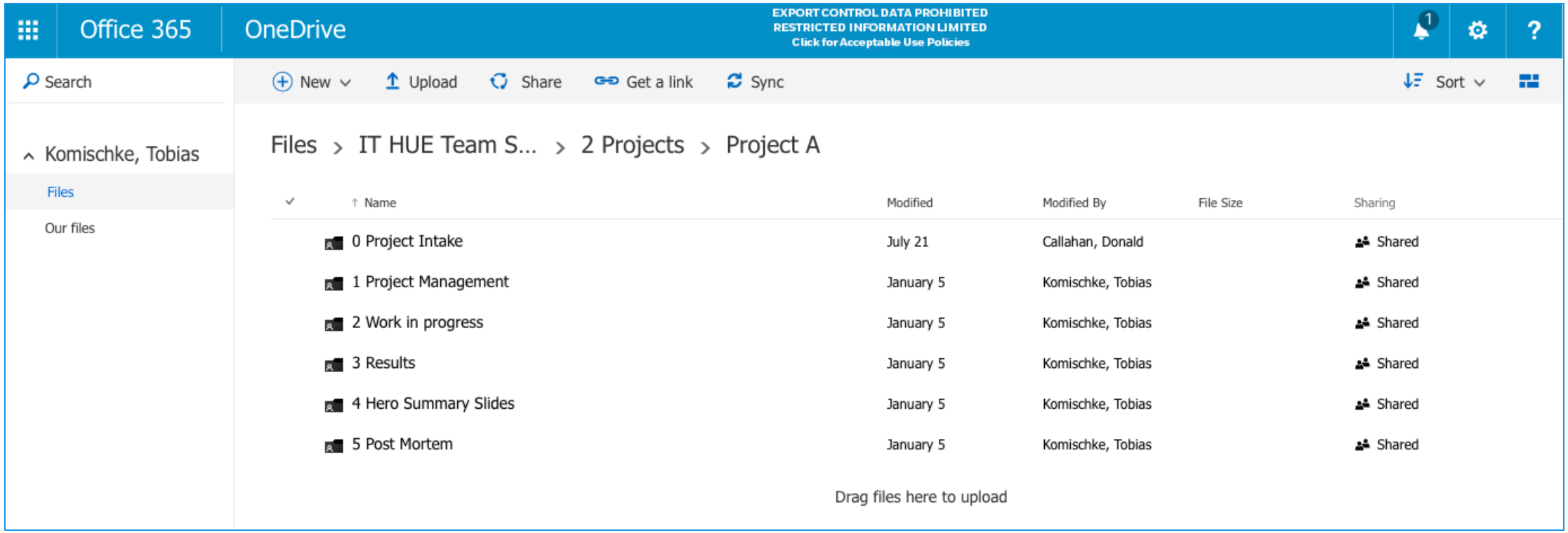
# Step 7: Store and Share

- Store electronic documents as project artefacts on the project share drive



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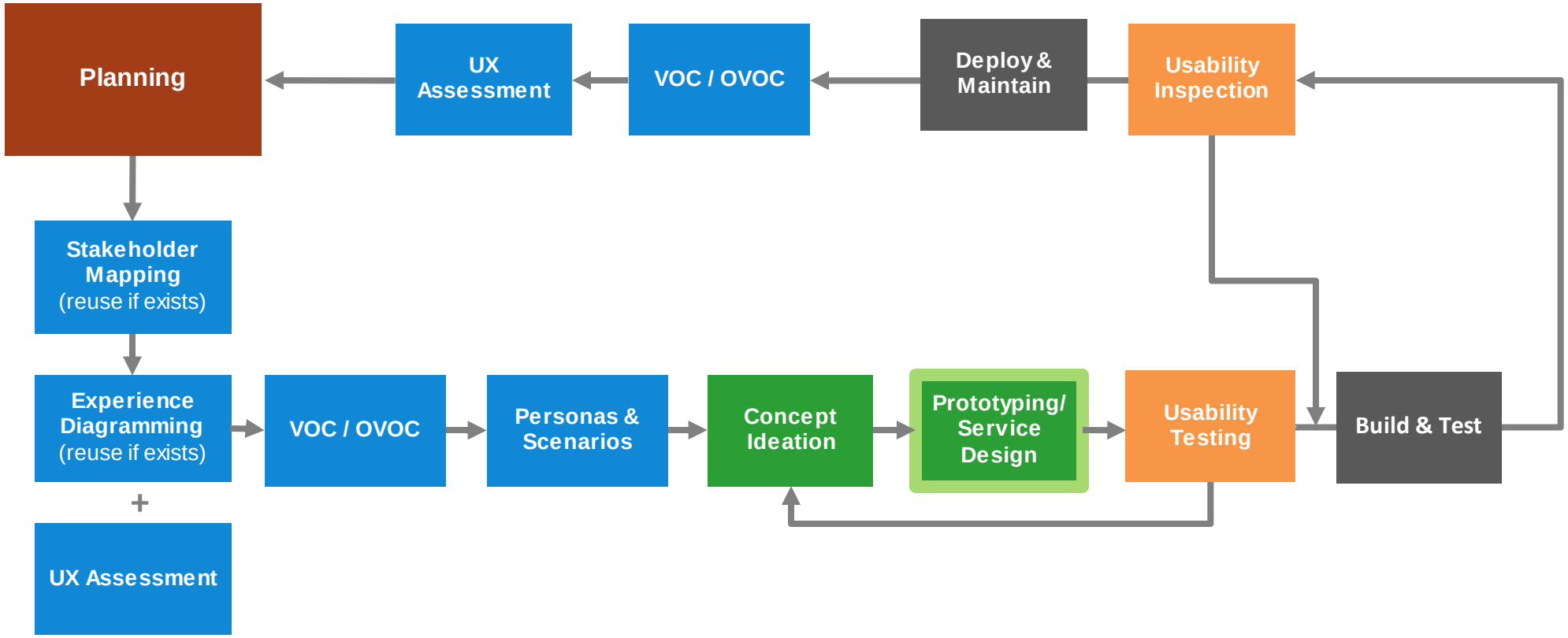
# Next Steps



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# Feedback

- Have your expectations been satisfied?
- What did you like?
- What can we do better?



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# The End



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