



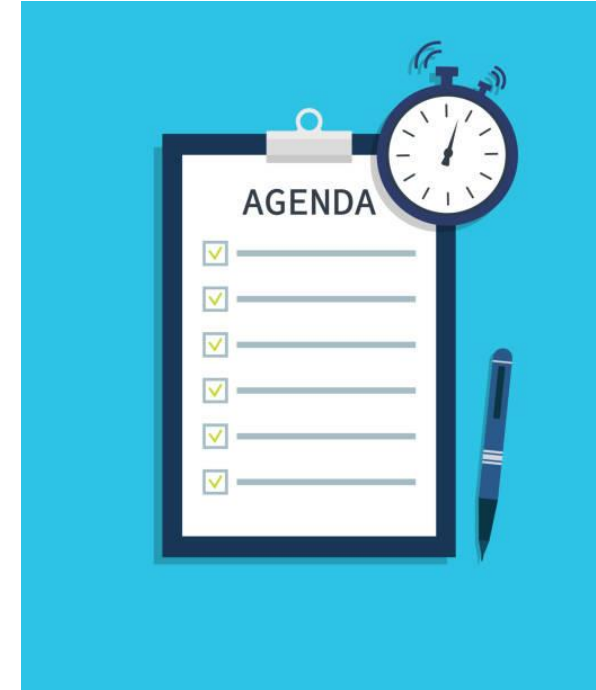
Project Templates & Ideation Process

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Professional Readiness for Innovation, Employability & Entrepreneurship

Agenda

- Project Development Process
- Design Thinking in Solution Development
- Project Templates
- Ideation Process
- Responsibility of Faculty Mentor
- Q&A

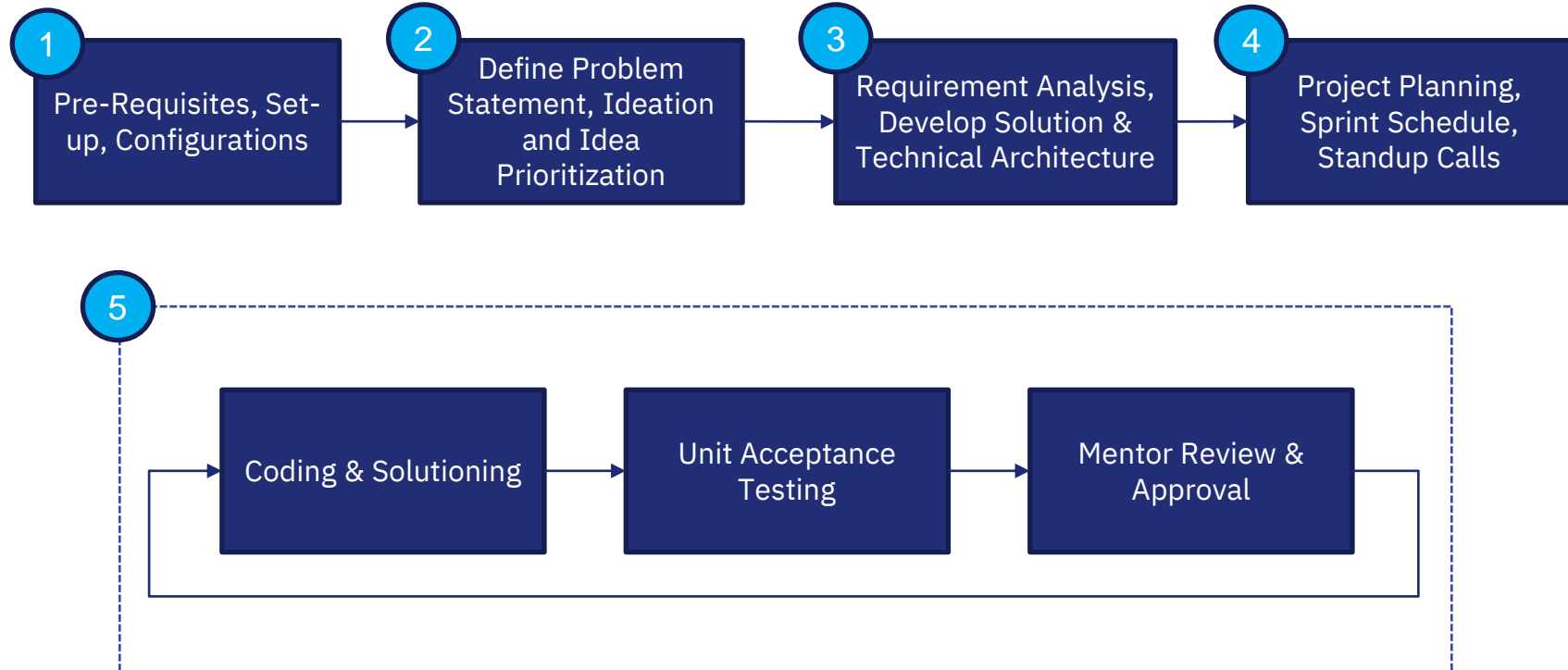


Project Development Process

Project Development Process



Teams shall follow the below stages to develop the project



Design Thinking in Solution Development

*“I would spend 55 Minutes defining the problem and then five minutes solving it” – **Albert Einstein***



What is Design Thinking ?

Design thinking is a creative problem – solving process that focuses on a **user-centered approach** to create a solution that is technologically and economically feasible

Design Thinking Success Story



Airbnb has gone from making 200 USD a week to revolutionizing tourism: more than 1,500,000 Properties listed in 192 countries and 34,000 cities with a total number of roomers in excess of 40 million in 2015.

Airbnb

It's hard to believe that the ever-successful start-up Airbnb was once making less than \$200 per week. What grew their revenue and transformed Airbnb into a billion dollar business? Lots of experimentation, risk, and thinking outside of the norm.

Joe Gebbia and Paul Graham, co-founders of Airbnb, remember going over numerous charts, graphs, and codes with their design team trying to find some clue as to why their growth was nearly zero.

It wasn't until Gebbia began moving through the app like a user that he realized why no one was wanting to book a stay—the pictures looked terrible! Without any data to back their next decision, Graham and Gebbia decided to rent a camera, travel to New York and spend some time with their customers to replace the amateur photos with more professional-looking ones.

A week later, their revenue nearly doubled. By taking a risk on a non-scalable solution, Graham and Gebbia witnessed their dwindling start-up transform into a thriving enterprise that revolutionized the travel industry.

Design Thinking Process



There are several variations of the design thinking process in use today. Some processes have as few as three steps, while others have as many as seven steps.

The process, as defined by [Stanford University's d.school](#), a leading university teaching design thinking, involves five stages: **empathize**, **define**, **ideate**, **prototype** and **test**. Let's take a closer look at each of these stages.



1. Empathize

Your goal

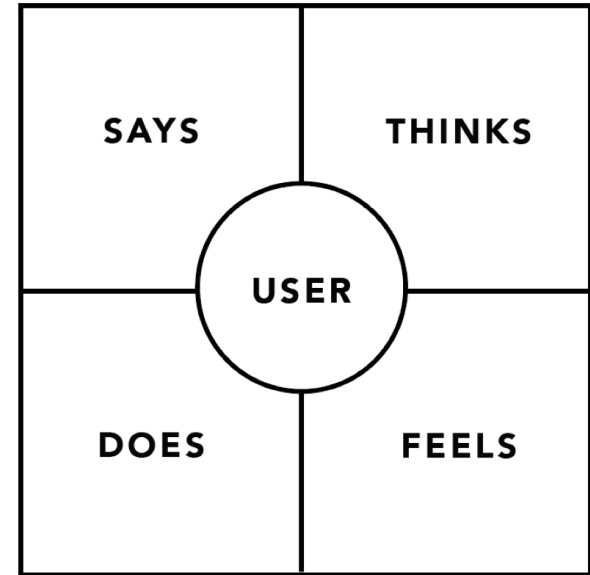
Connect to the user's story, emotions, and your insights about them. This generally involves observing, engaging and empathizing with people to understand their experiences and motivations.

Who is the user?

Understanding the user



EMPATHY MAP

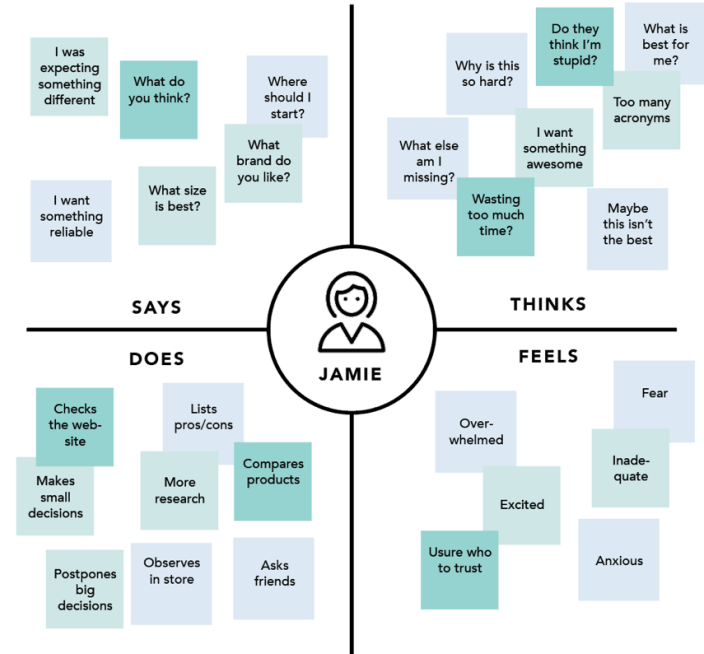


1. Empathy Map - Example

An empathy map is a simple, easy-to-digest visual that captures knowledge about a user's behaviors and attitudes. It is a useful tool to help teams better understand their users.

Creating an effective solution requires understanding the true problem and the person who is experiencing it. The exercise of creating the map helps participants consider things from the user's perspective along with his or her goals and challenges.

EMPATHY MAP Example (Buying a TV)



1. Empathy Map Canvas - Template



<https://www.mural.co/templates/empathy-map-canvas>

2. Defining the Problem



Your goal

Analyze your observations about the user and synthesize them to define the core problems you have identified as a problem statement.

The user _____ needs a way to _____ do something that addresses their need _____ so that _____ the user benefits directly.

What's a problem statement?

Sam is a busy manager
user name user characteristics
who needs a way to integrate healthy eating habits
user need
because he doesn't want to feel like he's on a diet.
insight

2. Defining the Problem



A problem statement often touches on the 5 w's (who, what, where, when, why) of the problem. In other words, where and when does the problem occur, who or what does it affect, and how does it affect them. Here is some more information regarding each of these initial questions:


| Question | Description |
|--|---|
| Who does the problem affect? | Specific groups, organizations, customers, etc |
| What are the boundaries of the problem ? | e.g. organizational, workflow, geographic, student segments, etc. |
| What is the issue? | What is the impact of the issue? What impact is the issue causing? What will happen when it is fixed? What would happen if we didn't solve the problem? |
| When does the issue occur? | When does it need to be fixed? |
| Where is the issue occurring? | Only in certain locations, processes, products, etc? |
| Why is it important that we fix the problem? | What impact does it have on the business or customer? What impact does it have on all stakeholders |

3. Brainstorming Ideas & Idea Prioritization


Your goal

This is where you engage in unfiltered, unrestrained brainstorming.


How can we solve this obstacle?




Rules of Brainstorming




Defer Judgment




Encourage Wild Ideas




Build on the Ideas of Others




Stay Focused on the Topic



One Conversation at a Time



Be Visual



Go for Quantity

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3. Brainstorming Ideas & Idea Prioritization

1 Define your problem statement

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

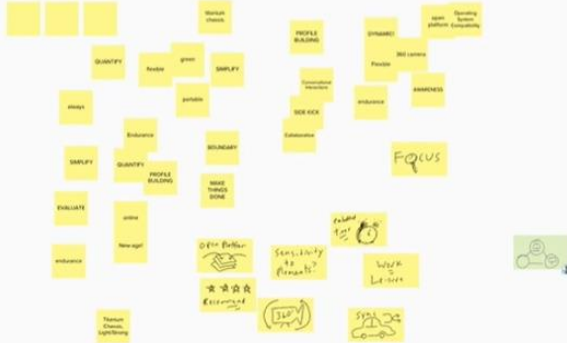
Concept Brainstorm for PONTUS - a connected micro device for workplace improvement

2 Brainstorm

Write down any ideas that come to mind that address your problem statement. Remember, the key rules of brainstorming are:

Defer judgment Go for volume Build on the ideas of others Stay on topic Encourage wild ideas Be visual PRO TIP: Select a sticky note and click the pencil icon in the menu to sketch.

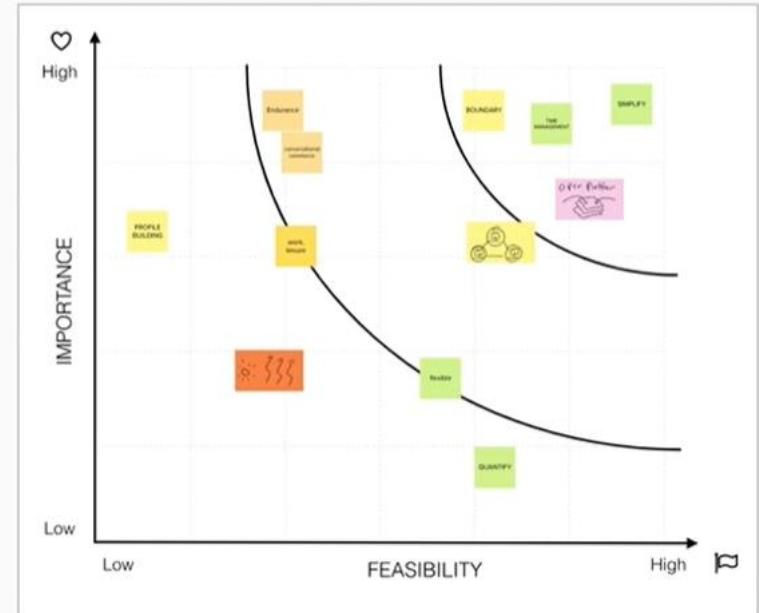
⌚ 20 minutes



3 Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

⌚ 20 minutes



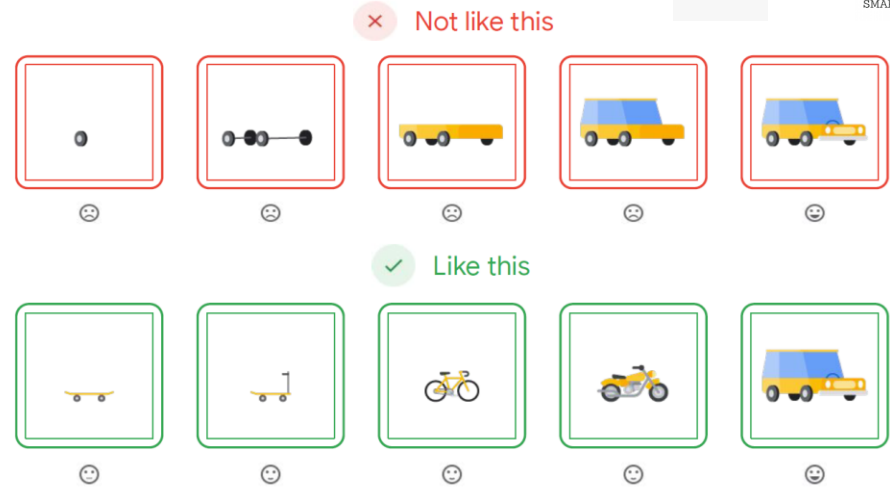
4. Prototype

Your goal

Draw out or craft what is possible, keeping in mind your minimum viable product (MVP).

What is an MVP?

Pick one of your feasible ideas and flesh out how you would build this solution (think: technology needed, time required, money needed, resources available, etc.).



5. Test

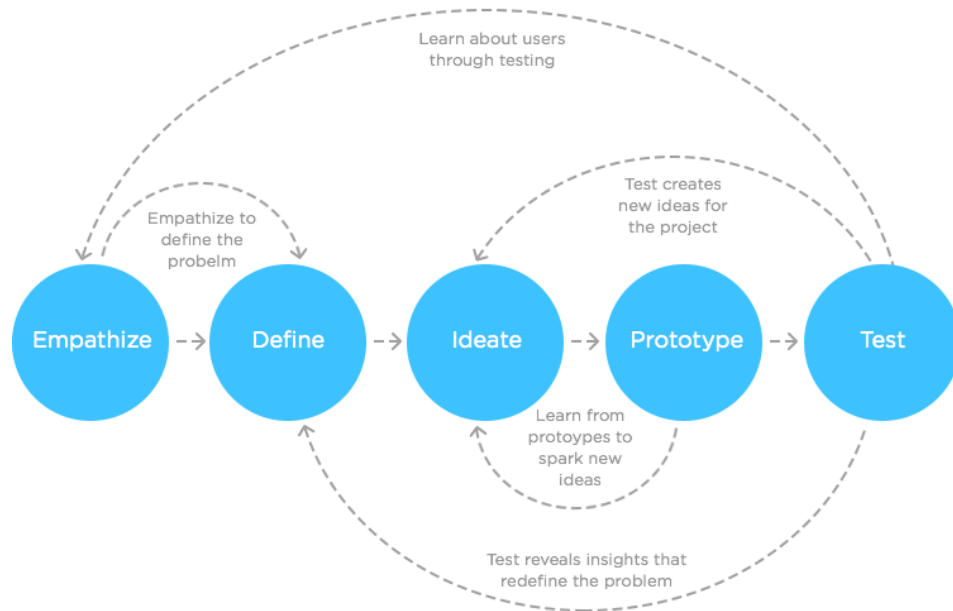
DESIGN THINKING:

A non-linear process

Your goal

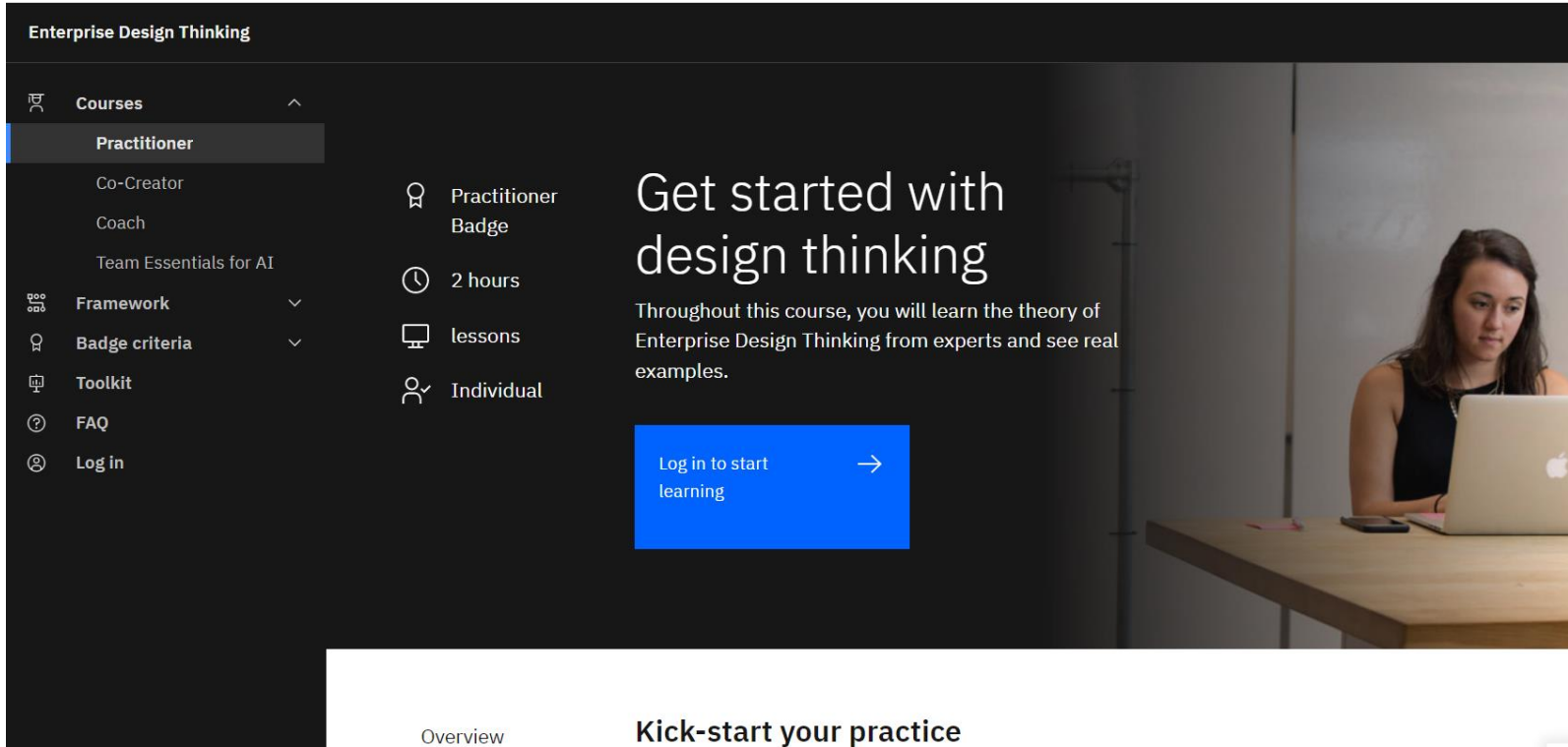
Test the complete product using the best solutions identified during the prototyping phase. Refine and alter as needed - this is an iterative process.

What is an iterative process?



Reference

IBM Enterprise Design Thinking : <https://www.ibm.com/design/thinking/>



The screenshot shows the IBM Enterprise Design Thinking course landing page. The page has a dark theme with a white sidebar on the left. The sidebar contains a navigation menu with the following items: Courses (with a dropdown arrow), Practitioner (highlighted with a blue bar), Co-Creator, Coach, Team Essentials for AI, Framework (with a dropdown arrow), Badge criteria (with a dropdown arrow), Toolkit, FAQ, and Log in. The main content area features a large heading "Get started with design thinking" and a subheading "Throughout this course, you will learn the theory of Enterprise Design Thinking from experts and see real examples." Below the subheading is a blue button with the text "Log in to start learning" and a right-pointing arrow. To the right of the text is a photograph of a woman with long dark hair, wearing a black sleeveless top, sitting at a wooden desk and working on a silver laptop. The background of the photograph is a blurred office setting.

Enterprise Design Thinking

Courses ^

Practitioner

Co-Creator

Coach

Team Essentials for AI

Framework v

Badge criteria v

Toolkit

FAQ

Log in

Practitioner Badge

2 hours

lessons

Individual

Get started with design thinking

Throughout this course, you will learn the theory of Enterprise Design Thinking from experts and see real examples.

[Log in to start learning](#) →

Overview

Kick-start your practice

Reference

IBM Skills Presents: Making Practical Use of Design Thinking



Design thinking is a process and philosophy that helps redefine problems and build empathy with our users. At the core of any problem is a person who needs help, and design thinking helps bring them to the forefront of any conversation.

Responsibility of Faculty Mentors

Responsibility of Faculty Mentors

- ❑ Understand the project templates
- ❑ Work on collaboration tool (e.g. Mural)
- ❑ Ask student teams to gather the necessary information about the project usecase, like
 - Technical papers
 - White papers
 - Research publications
 - Similar product specifications
- ❑ Organize an ideation session with students
 - Empathize
 - Define the problem statement
 - Brainstorm the ideas
 - Idea finalization

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