

04 Prototyping

The R³ tasks continue this week. Task 04 - Prototyping will inform your work on Projects 3 & 4 of the Collect Discover Understand module.

Aim for completion of this task by: **Sunday 09/11/25**

1. Watch *ALL THREE* of these Google for Entrepreneurs videos on prototyping. While watching, note that the actual apps / software / code that they use are a little out of date and relatively unimportant. What is important is the process they work through. Make notes as you watch and write them up as your response to this task (c.250-400 words).

[Rapid Prototyping - Sketching](#)

[Rapid Prototyping - Digital](#)

[Rapid Prototyping - Native](#)

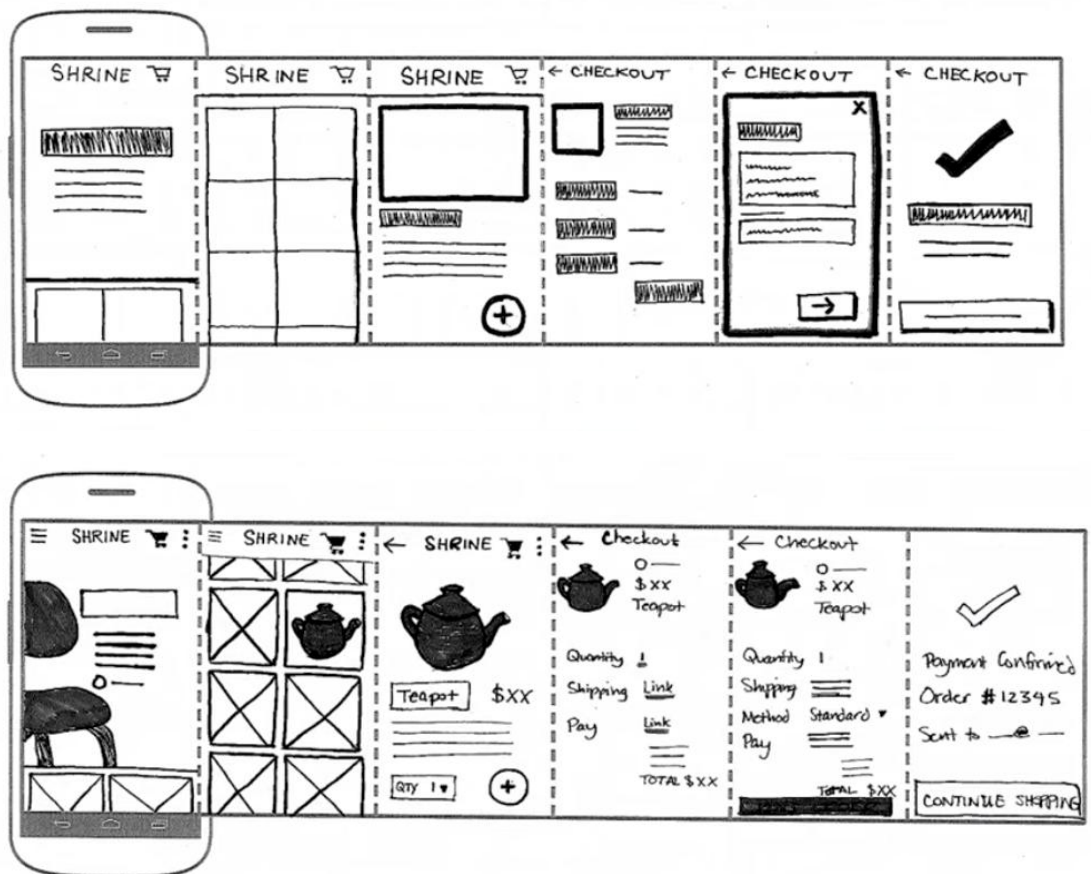
2. Find another useful resource about prototyping - this might be, but is not limited to, a book, podcast, video, or a website. List your chosen resource in your task response, along with where to find it (eg its URL) and a short review of why it's worth looking at (c.100 words).

Illustrate your written notes with appropriate images where possible.

Watch ALL THREE

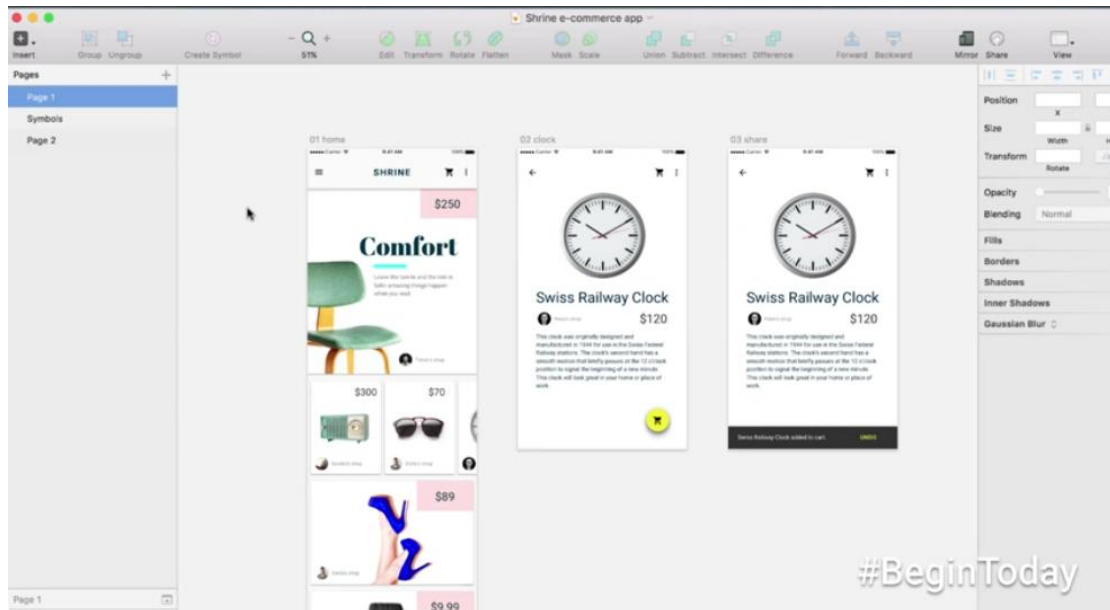
Low-Fidelity Prototyping: Sketching and Paper Prototypes

The first video highlights sketching and paper prototyping as foundational tools for rapid idea visualization. Sketches, whether simple layouts or detailed drafts with colors and buttons, accelerate subsequent digital work by refining concepts upfront. Paper prototypes address a key limitation of static sketches: simulating user interactions. By reusing printed common elements and experimenting with physical layers, designers can test screen transitions, material design principles (including purposeful color use—one primary color and 1-2 accent colors—and Z-axis shadows), without relying on technical skills. These low-fidelity methods remain valuable even post-launch for quickly iterating on new ideas.



Digital Prototyping: Interactive Tools for Tangible Experiences

The second video transitions to digital prototyping, which transforms abstract concepts into interactive experiences. Tools like Principle and Form enable non-technical designers to build functional prototypes for stakeholder presentations and user testing. Demonstrated with a fictional e-commerce app, Principle simplifies importing Sketch designs, adding scroll (vertical/horizontal) and click interactions, and creating transitions (e.g., product card to details page, add-to-cart confirmations). Auto-transitions and real-time mobile previews enhance realism and efficiency. Form complements this by supporting gesture-based interactions (e.g., panning) via modular patches. The series underscores that digital tools eliminate coding barriers, enabling rapid exploration of multiple design directions.



Across both phases, the focus remains on iterative validation: low-fidelity methods for early concept alignment and digital prototypes for interactive testing. By combining these approaches, I can make informed design decisions while keeping the process flexible and user-centric.

Native Prototyping

The final stage is native prototyping, which involves writing code (e.g., Swift, Java, or JavaScript) to run on real devices with real data. This stage adopts a "hacker mentality"—taking shortcuts and using throwaway code to explore technology limits, such as sensors like GPS or gyroscopes.



The overarching workflow is a continuous cycle of Design → Prototype → Test → Validate. By testing these prototypes with real users, I can collect actionable data to support design decisions, identify features that truly resonate, and build a compelling story for stakeholders.

Find another useful resource about prototyping

Resource: Prototyping for Designers: Developing the Best Digital and Physical Products
by Kathryn McElroy

URL: <https://www.oreilly.com/library/view/prototyping-for-designers/9781491954072/>

Review: This book is a comprehensive guide that bridges the gap between digital interface design

and the physical world. While many modern resources focus strictly on app screens, McElroy explores how to prototype everything from software to "smart" physical objects using tools like Arduino and sensors. She provides a practical framework for determining the necessary level of fidelity for any given stage of the design process, helping designers avoid the trap of "over-polishing" too early. Its emphasis on user testing and iterative feedback ensures that prototypes remain a tool for discovery and validation, perfectly complementing the rapid prototyping philosophy shared by Google.