UXPin

Web UI Design Process

The Visual Power of Mockups

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Introduction

Before we get into how to make the most of your mockups, it helps to know what exactly they are – and what they're not.

As discussed in *The Guide to Wireframing*, mockups, wireframes, and prototypes can be confused with each other, making it difficult to find accurate information on each. However, all are integral parts of the UX design process, and so each should be given due attention.

Source: UX Design Process

We'll start our exploration of mockups by giving a broad overview, discussing the terminology, and showing how they fit into the design process as a whole.

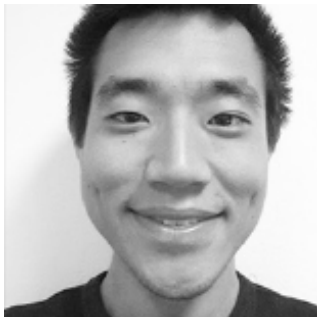
The design process is rarely linear. Wireframes don't always become mockups, and mockups don't always become prototypes. Think less about the order of the deliverables, and more about the purposes.

This book is written as a practical overview of mockup anatomy, purpose, and process. The mockup does not exist in a vacuum, but

is just as vital a part of the design process as the rougher wireframe and more functional prototype.

We wrote this book so that you can see mockups as a valuable collaborative visual design tool, not just something to send off to developers and stakeholders. If you find it helpful, feel free to share.

For the love of UX design,
Jerry Cao
co-written by Matt Ellis & Kamil Zieba



Jerry Cao is a content strategist at UXPin where he gets to put his overly active imagination to paper every day. In a past life, he developed content strategies for clients at Brafton and worked in traditional advertising at DDB San Francisco. In his spare time he enjoys playing electric guitar, watching foreign horror films, and expanding his knowledge of random facts. Follow me on Twitter.

Co-founder and head of product, Kamil previously worked as a UX/UI Designer at Grupa Nokaut. He studied software engineering in university, but design and psychology have always been his greatest passions. Follow me on Twitter @ziebak

With a passion for writing and an interest in everything anything related to design or technology, Matt Ellis found freelance writing best suited his skills and allowed him to be paid for his curiosity. Having worked with various design and tech companies in the past, he feels quite at home at UXPin as the go-to writer, researcher, and editor. When he's not writing, Matt loves to travel, another byproduct of curiosity.

Mockups vs. Wireframes vs. Prototypes

Getting back to basics, before a website or app is released, most of them go through three preliminary stages. These stages allow the team, and sometimes a few select users, to test its appearance, structure, and functionality before its release. Ideally, these preliminary stages allow you to fix any problems while they're still small, and fine-tune your design to communicate your message most clearly.

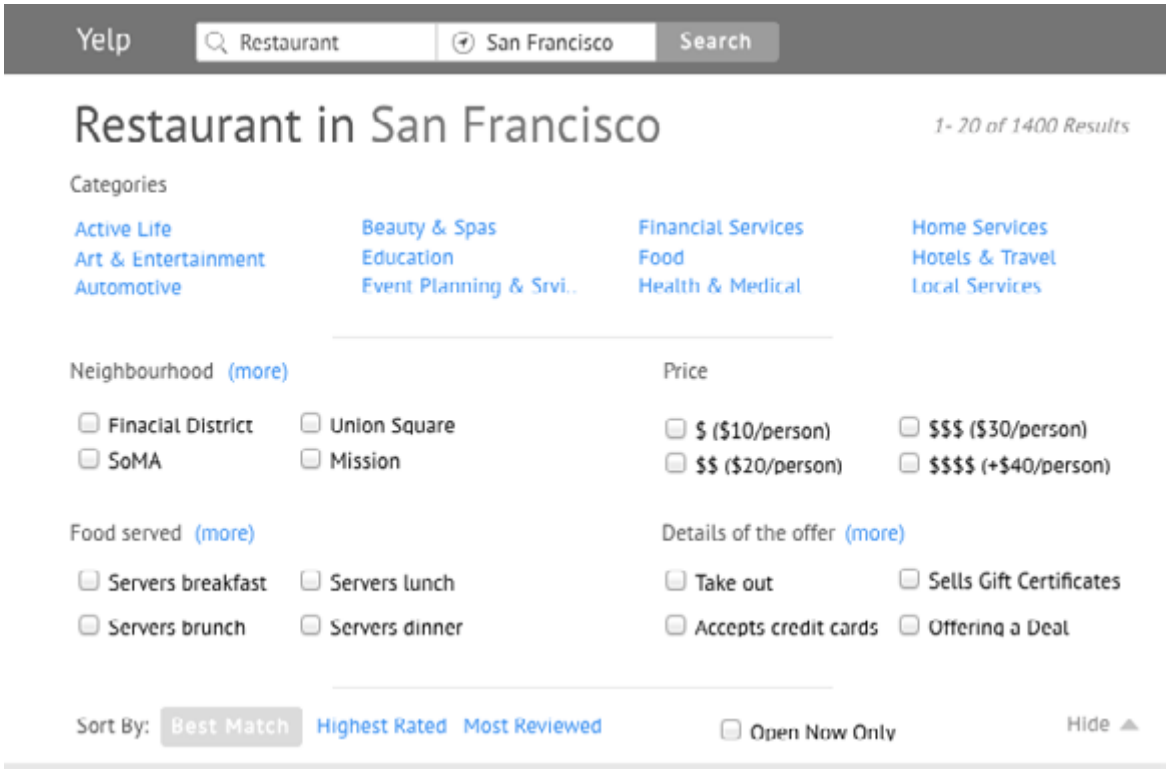
But because these phases are similar, they're often confused with each other. That's why we'll take a moment here to clarify the proper terminology for each. Marcin Treder, CEO of our own **UXPin,** lists the three formative stages of the UX design process as wireframes, mockups, and prototypes. Let's take a deeper look at each stage.

1. Wireframes

Wireframes are typically a low-fidelity, bare-bones blueprint, usually represented with gray boxes and placeholders for detailed content. Their goal is to help establish what goes where, without consuming too much time on aesthetics just yet.

A good wireframe should explain:

- how the content is grouped
- how the information is structured
- the most basic visuals involved in the UI interaction



Source: User Testing & Design

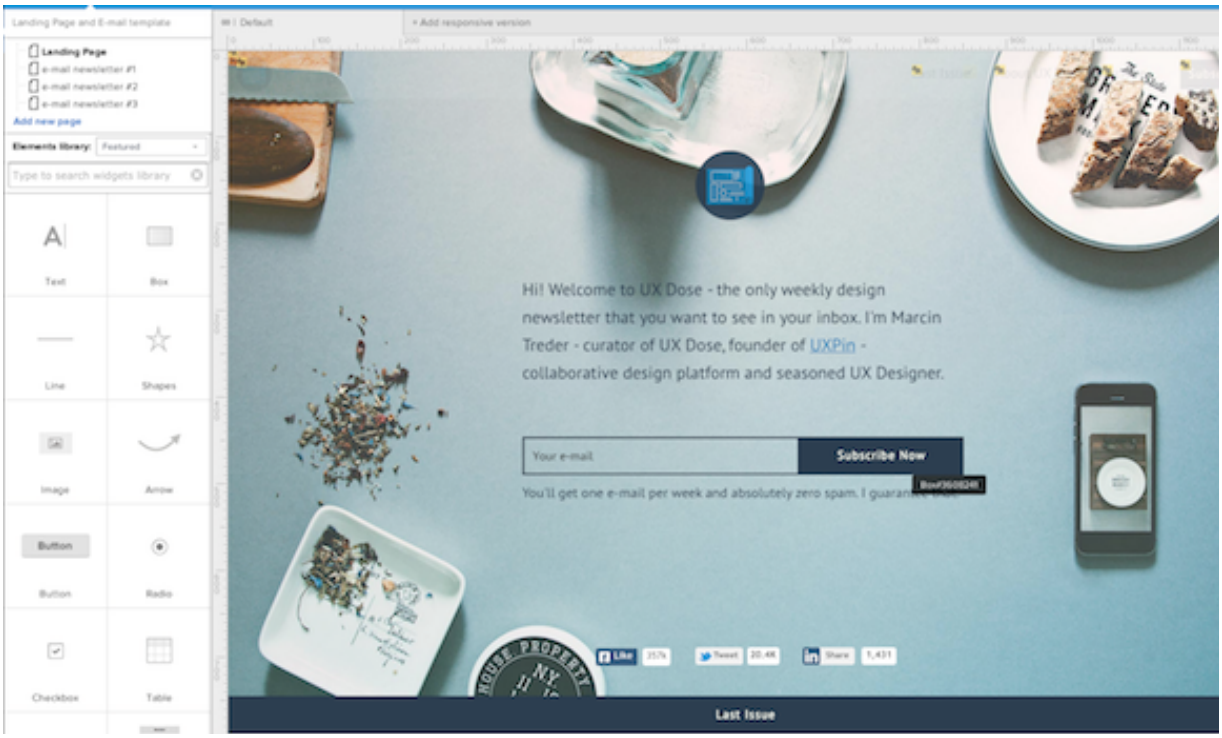
The purpose of a wireframe is to map out concretely for the entire team how the website should be designed. As described in the free *Guide to Wireframing*, the main goals of wireframing are documentation and design structure, but can also be shown to clients and stakeholders to get feedback while changes aren't painstakingly difficult.

To see how high-fidelity designs can start as wireframes, check out UXporn and hover over each design to see the transformations.

2. Mockups

The main character of the *Guide to Mockups*, the mockup is typically a mid- to high-fidelity representation of the product's appearance, and shows the basics of its functionality.

Mockups fill in the visual details (such as colors, typography, etc.) and are usually static. By looking at a mockup, you should get a good idea of how the final product will look and a rough idea of how it might function (even if the functions aren't yet working). A mockup can be considered a high-profile visual design draft.



Source: Mockup via UXPin

The wireframe lays the foundation and the mockup adds visual richness. While the mockup furthers the wireframe's purpose of documentation and organizing the team's vision, it does have an extra advantage the wireframe does not: with its superior visuals, the mockup is more impressive to stakeholders and investors, and so better at generating interest.

Treat mockups as a medium for conversation, not something tossed to developers.

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While the wireframe is visually stunted, the mockup is close to the final version in appearance, though it lacks the functionality of a prototype. In this way the mockup acts as the bridge between the wireframe and the prototype.

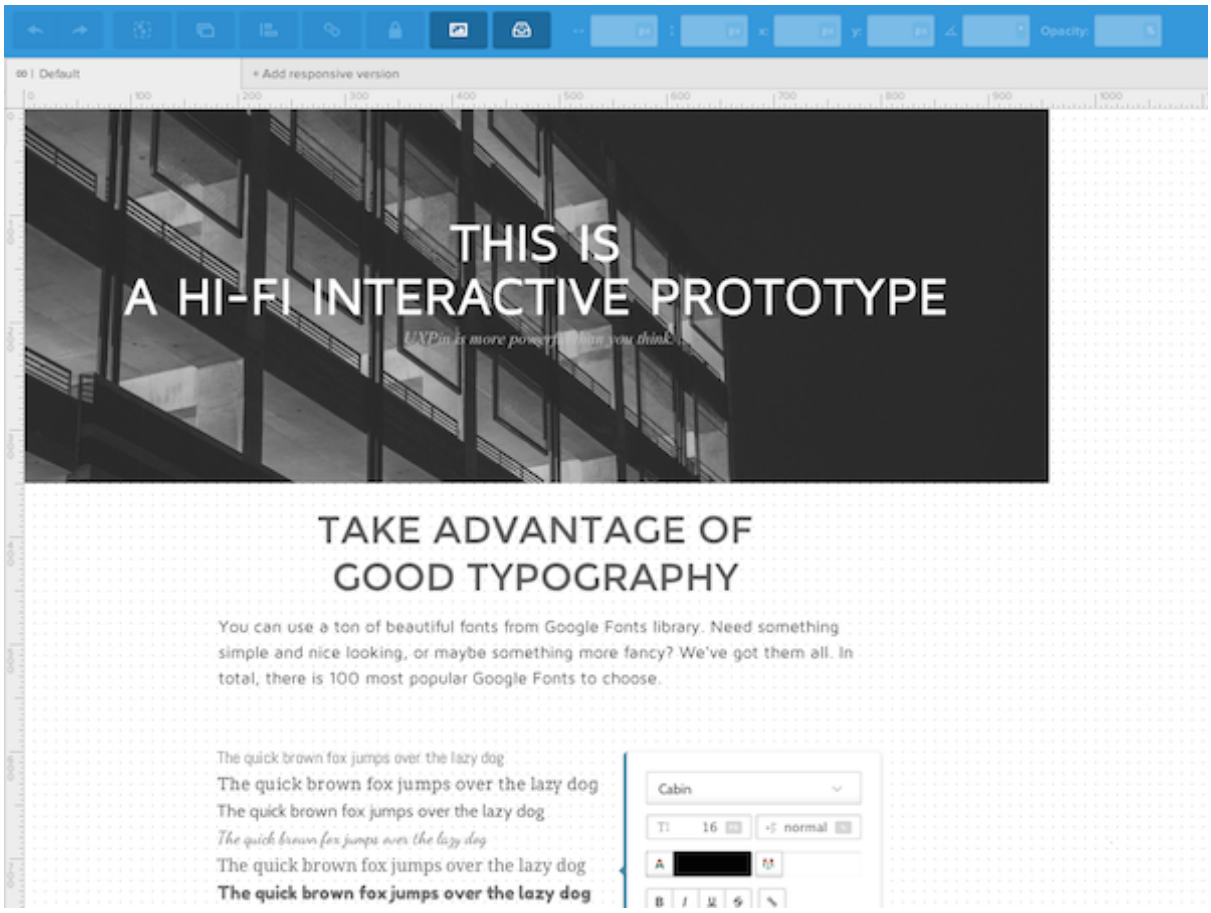
3. Prototypes

The end of the beginning stages, the prototype can be a low- or high-fidelity representation of the product that includes functionality and the finer point of the UI design. In addition to the information structure and visualizations of the previous two phases, the prototype introduces more depth to the early UI, allowing users to:

- experience actual content
- interact with the UI in a way similar to the final product
- predict and solve usability problems before further development

When it comes to finding the right fidelity for prototypes, remember that going low-fi will let you test and tweak faster, while going hi-fi will get you as close to the final product as possible without sinking resources into development. A common design process is starting with a low-fi prototype (similar to what **Apple** does by creating hundreds of early prototypes), and then iterating into high-fidelity prototypes. That way, you reap the benefits of customer-driven design due to early testing (as advised by notable entrepreneur Andrew Chen**)** as well as the clear spec-

ifications demonstrated by high fidelity (as explained by SVPG Partner Marty Cagan).



Source: UXPin

> Mockups show how it looks. Prototypes are how it works.
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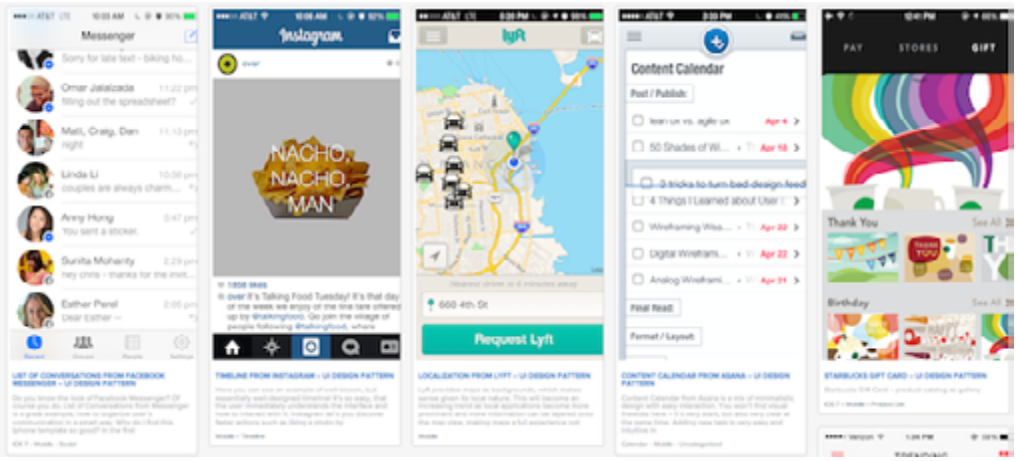
> tweet this

A high-fidelity prototype should be one step below the final product; it should look and function as closely to the final version as possible.

Why Mockups Matter

While some designers hold the opinion that mockups aren't necessary (especially for the rapid prototyping of Lean UX), mockups are extremely helpful for exploring visual design decisions before you need to live with the consequences of code.

Because mockups are a transitional phase between wireframes and prototypes, they are a sandbox for visual experimentation. There's a lot of details to keep track of in the UX design and development process, and overlooking the mockup phase can lead to subpar visuals.



Source: UXPorn

Anthony Tseng, editor-in-chief for **UX Movement,** believes in the power of both mockups and wireframes. In his opinion, design is "the synthesis of form and content." The wireframe outlines the basic structure of the content, while mockups present a vision of the form. Thus, a skilled designer will spend the appropriate amount of time perfecting both, and that means using wireframes and mockups.

Wireframes are lo fidelity. Mockups are mid to hi fidelity.

The importance of mockups is worth elaborating upon. Bima Arafah, freelance web designer and design author, explains why mockups are an essential part of the process. According to him, mockups are worthwhile for several reasons:

- **Organization of details** – Mockups can help reveal any clashing visual elements in a way that mirrors the final design. As discussed in *Web UI Best Design Practices*, fine details such as color, contrast, and visual hierarchies should be determined in the mockup stage (where they can be easily changed) and solidified in the development stage.

- **Design implementation** – How does your initial design perform? From a usability perspective, a mockup lets you test the visual details and change them before it's committed to code.

- **Immersion in the user's perspective** – As you add detail to the wireframe (or maybe you jump right into a mockup), you are constantly looking at and altering a design that is closer to the final state. It's a subtle difference, but an important one, since a high-fidelity mindset helps you make design decisions from the user's point of view.

- **Flexibility** – Revisions that carry over from wireframing can stack up pretty quickly, but making them in a mockup is (comparatively) easy compared to CSS or HTML.

A lot of the criticism against mockups comes from the time and energy it takes to create something that eventually needs to be rebuilt in HTML or CSS. But with the availability of mockup tools, like Moqups for lower fidelity or UXPin for all types of fidelity, designers can create mockups faster with premade element libraries.

Best Practices for the Mockups Process

Mockups can be more than just a step between wireframes and prototypes. In fact, even this transitional function can vary in importance and implementation.

Source: A Designer's Mindset

Before we get into the different processes for using mockups, we'd like to list some general advice to keep in mind when creating mockups, regardless of how you implement them.

Bima Arafah, Designer & Front-End Engineer at Nesia, believes in a KISS (Keep it Simple Stupid) approach when it comes to design processes involving mockups. Generally speaking, it helps to avoid

overly fancy visually effects like high contrast font types, and keep it simple by using existing palettes like Adobe Kuler.

Here's 5 more tips to keep even high-fidelity mockups grounded in simplicity:

1. **Design for the project's needs** – If stakeholders have trouble articulating their needs and expectations, ask them to collaborate. You should start the discussion around images, logos, and visual hierarchy well before your mockup is done (but don't let them have the final say, otherwise that's design by committee).

2. **Don't skip wireframing** – The wireframe is your guideline to your mockup. It allows you to answer broader questions about layout and content so that they don't distract you from visual decisions. Like this *Priority Guide*, a wireframe is naturally collaborative since the concepts are easily digestible.

3. **Focus on a centralized concept** – Sketching and wireframing is great for early concepting, but you need to have a clear direction by mockup time. As the old Native American adage goes, "If you chase two rabbits, you will lose them both."

4. **Check out rival sites** – In general, it's a helpful habit to be aware of what your competitors are doing, but in the wireframing and mockup phases it's especially helpful for thinking outside the company. A quick heuristic review shows where competitors

succeed – and how you can improve your own site based on their mistakes.

5. **Don't neglect mockup presentation** – One of the main functions of a mockup is its assistance in stakeholder presentation. If some elements don't come across in the mockup, include a few notes to explain their functions.

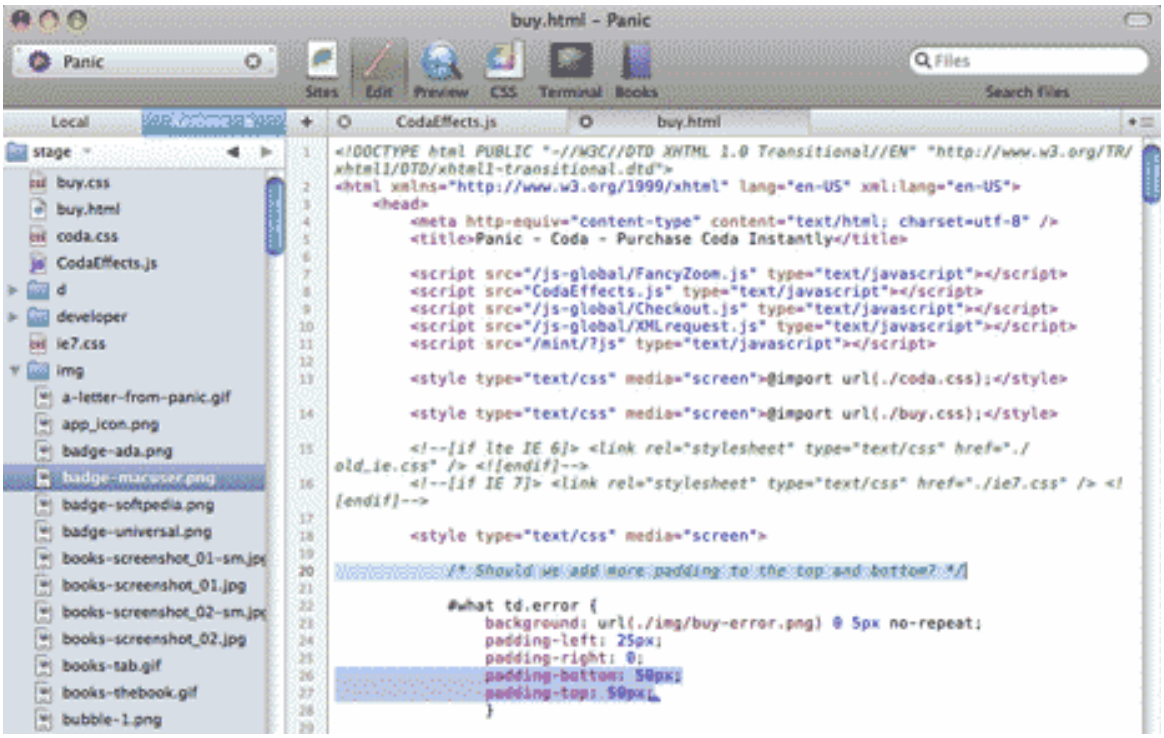
If you'd like to get more specific and learn about best practices for creating mockups in Photoshop and Sketch, check out our free *Guide to Mockups*.

Traditionally, the process goes from wireframing to mockups to prototyping, with variation in fidelity for each stage depending on the team. But like most design practices, others have strayed from tradition and discovered new and helpful alternatives.

The design process is as diverse as the companies using them. With these guidelines in mind, let's take a look at two opposite ways mockups fit into the design process.

1. Wireframing → Mockups → Development

This design method skips UX prototyping and leaps straight from mockups into development. Proponents of this method claim that prototyping is useless, as the sooner development starts, the better. In this case, the mockup gets added importance, as it is the most prominent "blueprint" referred to throughout development.



Source: Pixel Perfect Design Process

Steven Bradley of **Vanseo Design** is a follower of this method, and explains his personal process in a post for his site. However, it's important to note that even he, a professional designer, confuses the terminology and that his hi-fi wireframes and design comps are technically mockups. (For this reason, we included that disclaimer about nomenclature at the beginning of the e-book.) Here's the overall process:

1. **Sketching/Wireframing** – The first step of the process is sketching out the basic ideas and starting elements, plus a few rough design elements. Next comes wireframing, where these rough ideas are fleshed out and specified. Essentially, these early phases don't stray from the process described in *The Guide to Wireframing*.

2. **Hi-fi Mockups** – Next comes a high-fidelity mockup, meant to be as "pixel perfect" as possible. Keep in mind this is the final outline before the development process, so most details and decisions should be finalized and the final version should be run by the client.

3. **Development** – With the preliminary phases out of the way, it's time to start building the actual site. Bradley starts with a single HTML file that includes CSS and Javascript. When visuals don't code properly, extra time is spent redesigning until the final product is workable. At that stage, the file is sent to a tool like WordPress, where further revisions are made if needed.

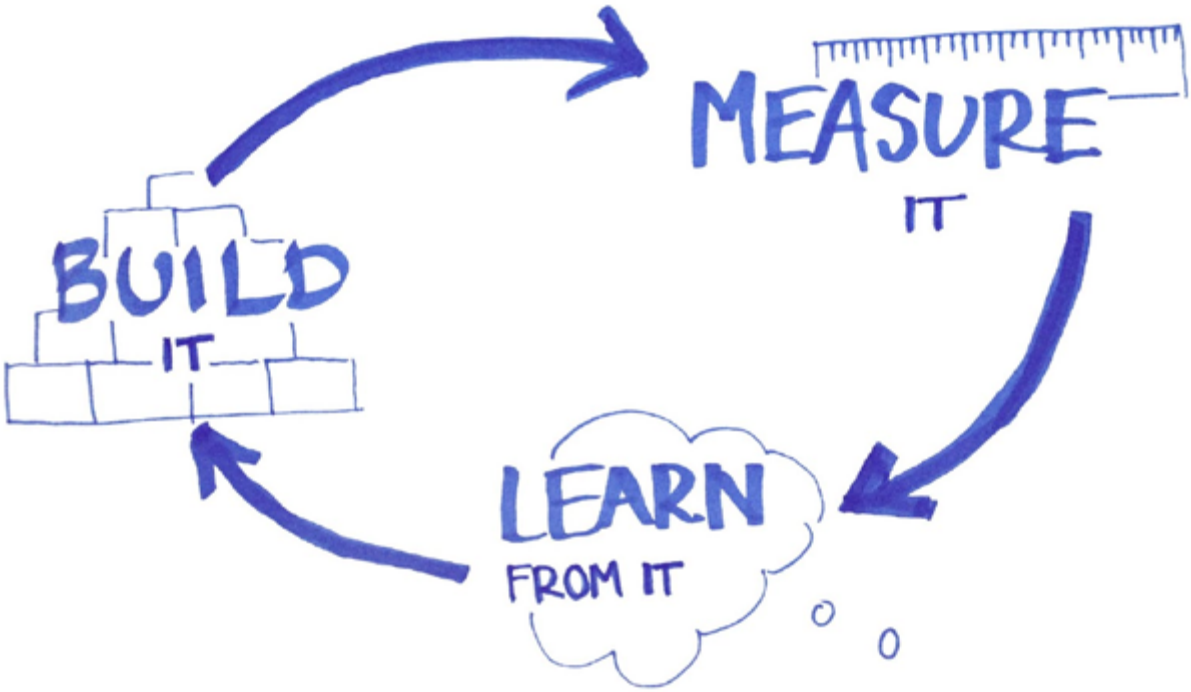
While we don't necessarily advise skipping the prototyping phase (since it can limit creativity), we understand its value in certain situations. However, even in such situations, we would recommend at least a rapid prototyping phase over none whatsoever. **Smashing Magazine** posted a great piece on how to conduct a highly efficient 3-step prototyping phase for situations like these.

Speaking of the importance of prototyping, let's take a look at the a design process that combines mockups and hi-fidelity prototypes. This is actually the process we follow at UXPin.

2. Wireframe → Lo-fi Prototype → Hi-fi Mockup/Prototype

Quite the opposite of the last method, this process places extra emphasis on the prototyping phase, initiating it as early as pos-

sible. This is the method that most closely relates to the coded mockup we discussed in *The Guide to Mockups*. This early integration with functionality works well with designers who know their code, or with a project that involves especially complex technicalities.



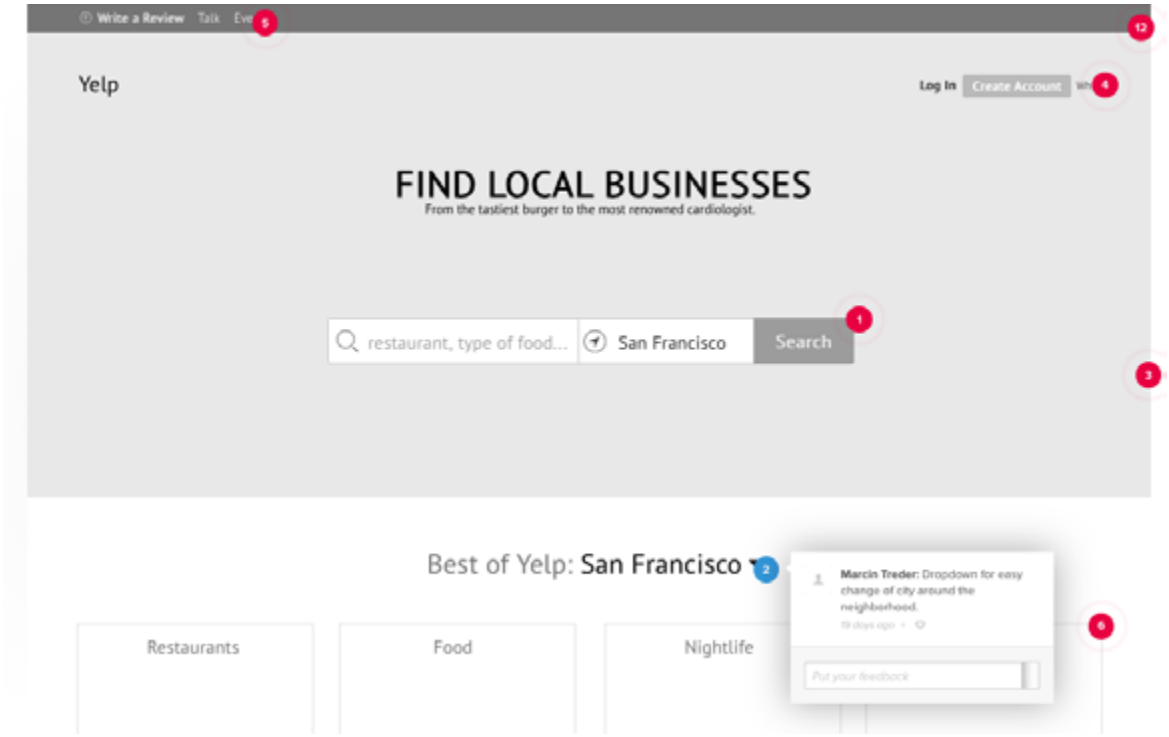
Source: UX Design Process

In the previous e-book *User Testing & Design*, we discuss this method at length; however, here we'll give a brief overview:

1. **Wireframing** – This phase starts out as always – basic ideas, basic structuring.

2. **Lo-fi Prototype** – The important factor here is "lo-fi," as you don't want to bite off more than you can design this early on. At this stage, you focus more on interaction and functionality. For

example, when we reworked Yelp's website, we simply added interactions to our wireframe in UXPin, as you can see on this live version.



Source: UXPin Low-Fidelity Yelp Design

3. **Hi-fi Mockup/Prototype** – When it comes time to focusing on visuals (the main purpose of mockups), you can just inject those details into the existing lo-fi prototype. As the visuals develop, add more and more interactive elements as well, merging the mockup with the lo-fi prototype to create a hi-fi prototype. Whatever visuals you can't create in your prototyping tool can be built in Photoshop or Sketch, then can be imported and dragged-and-dropped into UXPin or redrawn in other tools.

4. **Usability Testing and Iterating** – One of the big advantages of this method is that functionality can be tested, refined, and

> perfected early on when it's still (relatively) easy. By conducting usability tests between each stage of design, you can start addressing problems before they're even problems.

If you're curious about a variation of this process, Bhavin Parikh, Founder and CEO of Magoosh, explains how to turn web requirements into mockups. Like we described before, he also emphasizes thinking about interaction design before working on the visual design (although he incorrectly uses the terms mockup and prototype interchangeably).

Really, though, there are any number of methods and strategies for the design process, from obsessive and meticulous planning to jumping head-first into development. While we've discussed several approaches, feel free to mix-and-match depending on your own needs, strengths, and weaknesses.

A Final Note: It's All About Context

No matter where they appear in the design process, how much fidelity they have, or how much time you spend on them, mockups are quite helpful as visual documentation, quick spec sheets for developers, and a canvas for exploring visual details.

Often ignored (or confused with wireframes), mockups can be overlooked because they're seen as extra work. But as we've discussed in *The Guide to UX Design Process & Documentation*, the key to minimizing double duty is collaboration. You'll get much more value from a mockup if you treat it as a medium to explore the technical feasibility of design rather than just a deliverable handed off to developers.

In order to get the most out of your mockup, make sure that you don't just create it for the right context, but that you also present it as such. Luke Wroblewski, product designer for **Google**, explains how the presentation of a mockup will affect the feedback it receives. A mockup is static, but final products are rich and interactive.

> Always present context. Otherwise, you'll get feedback on colors when you really care about structure.
>
> tweet this

When showing a mockup to stakeholders, you're inherently at a disadvantage since the mockup currently exists in a vacuum. That's why you should frame the presentation in the context of what prob-

lem the product design is solving – otherwise stakeholders may request features simply because they're focusing on a tree and can't see the forest yet.

Source: UXPin

Remember that mockups are still a design deliverable and just a means to the final design. This will guide the feedback more towards how it accomplishes its goal, and less towards criticism on the mockup itself.

You also don't want to let stakeholders have the final say in the mockup decisions, as this can lead to a dreaded design by committee, or at least diminishes the value of the designer in the eyes of the stakeholders.

Find the right mockup tool for the right fidelity (mid or high), conduct usability testing to back up your decisions, and always provide context when presenting the mockup.

Next Steps:

Transform PSD and Sketch mockups
into layered interactive prototypes

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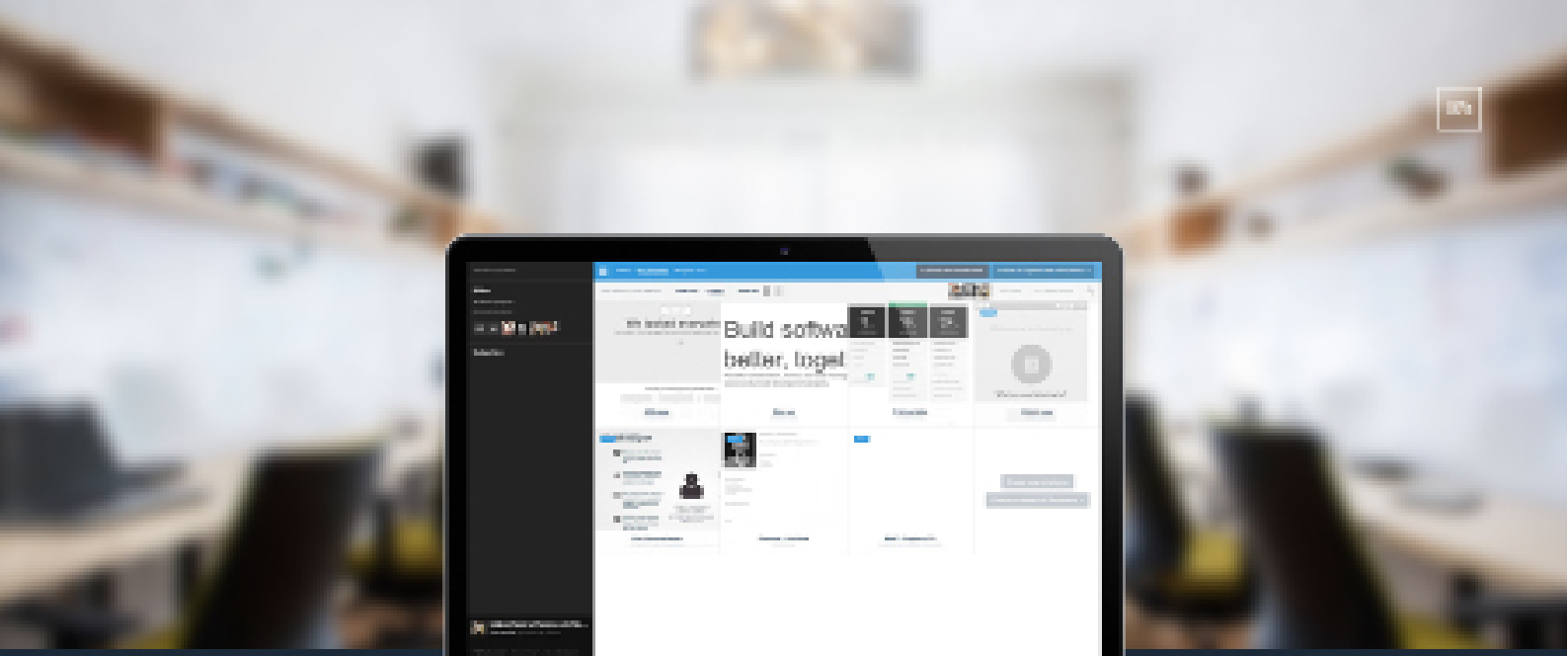

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