







# BASIC UX DESIGN

# **HANDBOOK**











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# I: WHAT IS UX, ANYWAY?



UX design stands for User experience design. In a way, the term is self-explanatory: UX design is all about creating products that are easy to use and enjoyable for the people who use them. UX designers focus on how a product works and how users interact with it. They seek to create products that are both functional and user-friendly.

User experience design, as its name suggests, is about designing the ideal experience of using a service or product. As such, it can involve all types of products and services—think, for instance, about the design involved in a museum exhibition. However, in the main, the term user experience design is used in relation to websites, web applications and other software applications.

Since the second half of this century's first decade, technologies have become increasingly complex, and the functionality of applications and websites has become far broader and far more intricate. Early websites were simple static pages that served up information to feed curious searchers; however, a few decades later, what we can find a wealth of online are sites that are interactive and offer a much richer feel for users.

Firstly, a UX designer is someone who investigates and analyzes how users feel about the products he or she offers them. UX designers then apply this knowledge to product development in order to ensure that the user has the best possible experience with a product. UX designers conduct research, analyze their findings, inform other members of the development team of their findings, monitor development projects to ensure those findings are implemented, and do much more.

Generally speaking, the work of a UX designer can be grouped into three main categories:

- RESEARCH Gain insight into user needs from interviews, surveys, and other user research methods. This data will then be used to inform your design decisions.
- INTERFACE DESIGN After analyzing your user research data, you'll design layouts, structures, and user flows that best fit the user needs.
- UX TESTING Throughout the design process, you'll test your work to make sure that it continues to align with user needs.

# What Does the UX Design Career Path Look Like?

The career path of a UX designer often begins with a UX/UI or product design generalist role, where your work touches multiple aspects of the product design process. As a new UX designer, you might work on anything from user research to information architecture; visual design to interaction design. If you enjoy this generalist role, good news: it's one that can easily age with you as you gain years of experience. However, you can also opt for a specialist path, whether that's in user research, UX writing, interaction design, or leading a team of designers.

Career Outlook for UX Designers

## What Skills Do I Need to Become a UX Designer?

To become a UX (User Experience) designer, you'll need a combination of both hard and soft skills. These skills are essential to excel in the field and create user-friendly and effective digital products or services.

- 1. User Research: Understand how to conduct user research to gather insights into user behaviors, needs, and preferences. This involves techniques like interviews, surveys, and usability testing.
- 2. Prototyping: Develop interactive prototypes to test and iterate on design concepts before final implementation.
- 3. Usability Testing: Conduct usability tests to evaluate the effectiveness of your designs and gather user feedback for improvements.
- 4. Visual Design: Learn the principles of visual design, including color theory, typography, and layout, to create visually appealing and consistent designs.
- 5. Wireframing: Create low-fidelity wireframes to outline the basic structure and layout of a product or website.
- 6. Empathy: Develop empathy for users and their needs. Being able to put yourself in the user's shoes is crucial for creating user-centric designs.
- 7. Problem-Solving: UX designers should be adept at identifying and solving complex design challenges to improve the user experience.
- 8. Collaboration: Work effectively with cross-functional teams, including developers, product managers, and stakeholders, to ensure that design decisions align with business goals.
- 9. Communication: Clearly communicate design ideas and concepts through presentations, documentation, and discussions with team members and stakeholders.
- 10. Analytical Skills: Analyze user data and feedback to make data-driven design decisions and measure the success of your designs.



## Why does UX matter?

In the past, product design was relatively straightforward. Designers would create products they personally found appealing and hope that their clients would also like them. However, this approach had two significant drawbacks. Firstly, there was less competition for people's attention online during that time. Secondly, this approach completely disregarded the user's perspective, making the success or failure of a project largely dependent on luck rather than the design team's judgment.



Focusing on User Experience (UX) design is a transformative shift. It places the user at the center of the design process. This shift is crucial for several reasons, primarily because it significantly improves a project's chances of success when it's launched. This success isn't based on banking on users' blind faith in a product solely because of its brand name.

By prioritizing UX, designers consider the needs, preferences, and behaviors of users. This user-centric approach ensures that the final product is tailored to meet users' expectations and provide a positive experience. In an era with intense competition for users' attention, UX design helps create products that genuinely resonate with users, increasing the likelihood of success in the market. It replaces the old approach of relying on luck with a more strategic and data-driven approach that's grounded in empathy and usability.

## What is the main methodology for UX?

The primary methodology employed to ensure a positive user experience in most projects is known as user-centered design. In simple terms, user-centered design revolves around creating designs while keeping the users' needs and anticipated behaviors at the forefront. It's crucial for UX designers to recognize that user-centered design is a valuable approach for achieving a good user experience, but it is not the sole methodology or tool available for optimizing UX in a project.

User-centered design places the user's perspective at the core of the design process, emphasizing empathy, research, and iterative testing to meet user expectations effectively. However, the field of UX design is multifaceted and dynamic, and various methodologies, techniques, and tools can complement and enhance the user-centered design approach.

Design thinking, for instance, encourages creativity and innovation by approaching problems from a user-centric viewpoint. Agile and Lean methodologies promote flexibility and adaptability in design, allowing for quicker iterations and responses to user feedback. Accessibility guidelines ensure that products are usable by individuals with disabilities, contributing to a more inclusive user experience. Data analytics and user metrics provide valuable insights into user behavior, aiding in design decision-making.

In essence, while user-centered design is a vital framework for achieving optimal UX, UX designers have a diverse toolkit at their disposal. They can draw from a range of methodologies, techniques, and best practices to tailor their approach to the unique requirements and challenges of each project. The key is to select and combine the right tools and methods that best align with the project's goals and the needs of its users to ultimately deliver a superior user experience.



# What is Design Thinking?

Design thinking is an iterative problemsolving process that emphasizes a deep understanding of users, challenges assumptions, and uncovers alternative solutions. It combines both a mindset and practical methods to tackle complex issues.

At its core, design thinking focuses on gaining insights into the individuals for whom products or services are designed, fostering empathy for users. This empathetic approach helps designers comprehend user needs, motivations, and pain points.

Throughout the problem-solving process, design thinking promotes a questioning mindset. This involves questioning the problem itself, challenging assumptions, and considering the consequences of different solutions. It is particularly valuable for addressing complex or ambiguous problems by reframing them in a human-centric way.

A key aspect of design thinking is continuous experimentation. Designers employ techniques like sketching, prototyping, and testing to explore and refine ideas. This hands-on approach allows for rapid iteration and refinement based on real user feedback.

In summary, design thinking is a powerful approach for addressing complex, undefined problems. It revolves around understanding and empathizing with users, questioning assumptions, and adopting a creative and iterative approach to generate, test, and improve solutions. This versatile methodology can be applied across various industries and domains to drive innovation and usercentered design.



Design Thinking is a mindset that helps you solve problems creatively.



## Design Thinking's Phases

### **Empathize**

The Empathize stage, the first step in design thinking, is all about user-centric research and deepening your understanding of the problem. It involves consulting experts, observing user behavior, and immersing yourself in their environment to gain empathy. This process helps you set aside your assumptions and gain real insights into user needs. The goal is to gather substantial information for the next stages and develop a comprehensive understanding of users and their challenges, serving as a foundation for creating a product or service that genuinely meets their needs.

How to empathize with users?

- Ask lots of questions.
- Become more observant
- Be an active listener
- Request input
- Have an open mind

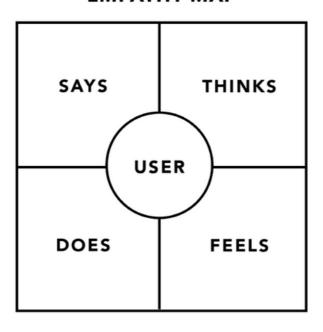
### Key empathy-building methods

• Empathy interviews

the key to an effective empathy interview is to structure it as an open conversation; don't try to steer the session with a set list of questions. Remember, the goal is to uncover as much insight as possible—not to confirm or negate a preconceived notion.



### **EMPATHY MAP**



# **Empathy maps**

This is another great tool not only for getting to know your users, but for sharing this knowledge across the wider team. Empathy mapping requires you to consider your users in relation to four different quadrants:

Says: Contains direct quotes based on what the user has said, for example during an empathy interview.

Thinks: Considers what the user might be thinking, but may not want to explicitly reveal. For example: "Am I stupid for not being able to navigate this website?"

Does: Looks at concrete actions the user takes, for example: refreshing a page, clicking a button, comparing different options before making a purchase.

Feels: Considers what emotions the user is experiencing at certain points. For example: "Frustrated: Can't find what they are looking for on the page."

## Design Thinking's Phases

### Define

In the Define stage, you will organize the information you have gathered during the Empathize stage. You'll analyze your observations to define the core problems you and your team have identified up to this point. Defining the problem and problem statement must be done in a human-centered manner.

For example, you should not define the problem as your own wish or need of the company: "We need to increase our food-product market share among young teenage girls by 5%."

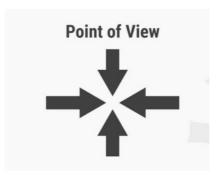
You should pitch the problem statement from your perception of the users' needs: "Teenage girls need to eat nutritious food in order to thrive, be healthy and grow."

The Define stage will help the design team collect great ideas to establish features, functions and other elements to solve the problem at hand—or, at the very least, allow real users to resolve issues themselves with minimal difficulty. In this stage, you will start to progress to the third stage, the ideation phase, where you ask questions to help you look for solutions: "How might we encourage teenage girls to perform an action that benefits them and also involves your company's food-related product or service?" for instance.

### Best practices for the Define stage

Use a Point of View (POV) statement

This single statement is the summation of your work. It defines who your user is, what their needs are, and any surprising elements or insights you've



gathered from your research.
This point of statement can
follow a formula: (user)
needs to (verb) because
(surprising element or
insight).

### "How might we?" questions

HMW: Make the experience less stressful? HMW: Make the commitment fun for the user?

HMW: Make the user's friends commit to keeping the user accountable? HMW: Make the user feel comfortable sharing his goals? HMW: Help the user set up his plan?

HMW: Ensure the user stays on track after achieving one or two steps

HMW: Ensure the user sticks to his schedule? HMW: Ensure the user doesn't quit, even if he might get behing schedule at a certain point? HMW: Help the user create a schedule based on this current free time? HMW: Reward the friends for their help?

HMW: Create a celebration moment for completing the goal? HMW:
Highlight
completing
each step for
the user?

HMW: Share to the friends that the user has completed a step? HMW: Show the user's process? HMW: Enable the friends to cheer the user?

Do not forget after, placing all HMW questions in one place to organize them in groups, based on discovered common themes. The next step is then to prioritize the questions that are the most important to address. Lastly its time for open up to Ideation where you explore ideas, which can help you solve your design challenge in an innovative way.

### Ideate

Ideation is the third stage of the design thinking process. The goal of the ideation stage is for teams to gather different perspectives and brainstorm solutions for design challenges. Ideation is the stage where the importance is "quantity over quality." In this stage of design thinking, there's no need to come up with concrete solutions or plans. It's time to focus on potential solutions.

For example, imagine a product team gathering to find a solution for converting free users into subscribers in an app. Ideation for this problem might include a team-focused brainstorming technique where participants work together in groups to come up with new ideas. Then they'd be able to challenge each other's ideas until you find a handful of workable solutions for the next stage. The ideation stage in design thinking is crucial because it:

- 1. Generates diverse ideas, fostering innovation.
- 2. Challenges assumptions and encourages creative thinking.
- 5. Provides a foundation for prototyping and testing.
- 6. Fosters collaboration within the team.
- 7. Helps identify and mitigate potential risks early in the process. In essence, ideation is where teams brainstorm and refine ideas to solve problems, making it a core element of the design thinking process.

### To ensure successful ideation:

- Begin with the empathize and define stages for user perspective and clear problem definition.
- Organize structured meetings to boost employee engagement in brainstorming.
- Prepare by setting expectations, defining the problem, and choosing a brainstorming technique.
- rank ideas based on customer needs.
- Select the best ideas to advance to the next stage.

Here is method that could help you during this stage;

Mind map brainstorm

Mind mapping is an ideation technique used to organize thoughts. It helps teams visualize concepts and organize them into categories. A mind map brainstorm starts with a central idea with branches built out from it. Each branch represents a different expertise or idea category, which then divides into smaller branches. For example, if you're doing ideation for a new feature, your branches could be "user experience," "sprints," and "resources" with different ideas for each.

How to do a mind map brainstorm:

- Determine the challenge or idea you want to solve.
- Add sticky notes with your ideas and throw them onto the digital whiteboard canvas.
- As ideas pop up, divide them into main categories.
- · Connect related ideas with one another
- Once you have a base for your mind map, explore each branch in detail.

<u>https://www.mural.co/templates/mind-map</u> here you can find different templates of mind maps .

## Prototype & Test

After you have an idea of how to solve the problem, you're ready to enter the prototype phase, where your goal is to produce an early model of a product that demonstrates its functionality and can be used for testing. The test phase is critical to developing the right solution to address your user's problem, and an organized approach to testing can help you create exceptional user experiences. Prototyping and testing are interconnected, which means that you'll test your designs at each stage of prototype development rather than waiting to test until after the working prototype is complete.



# III: UX RESEARCH

### **UX RESEARCH**

User research is a continuous part of the product development life cycle and takes place before, during, and after the Design phase. UX research focuses on understanding user behaviors, needs, and motivations through observation and feedback. UX research can help bridge the gap between what a business thinks the user needs and what the user actually needs, before an expensive and time-consuming product is made.

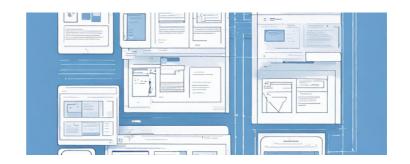
UX research has two parts: gathering data, and synthesizing that data in order to improve usability. At the start of the project, design research is focused on learning about project requirements from stakeholders, and learning about the needs and goals of the end users. Researchers will conduct interviews, collect surveys, observe prospects or current users, and review existing literature, data, or analytics. Then, iteratively throughout the design process, the research focus shifts to usability and sentiment.

We can also divide UX research methods into two camps: quantitative and qualitative.

-Quantitative research is any research that can be measured numerically. It answers questions such as "how many people clicked here" or "what percentage of users are able to find the call to action?" It's valuable in understanding statistical likelihoods and what is happening on a site or in an app.

-Qualitative research is sometimes called "soft" research. It answers questions like "why didn't people see the call to action" and "what else did people notice on the page?" and often takes the form of interviews or conversations. Qualitative research helps us understand why people do the things they do

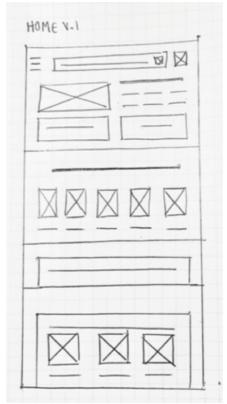
Interviews
Surveys
Focus groups
Competitive audit
Field studies
Diary studies
A/B Testing



A wireframe is a basic outline of a digital experience, like an app or a website. As the name suggests, wireframes look like they were created with wires. They're mostly lines and shapes with some text. So why do UX designers create wireframes? Wireframes establish the basic structure of a page. before any visual considerations, like color or images, are added. Wireframes serve as an outline to get the team on the same page early in the project.

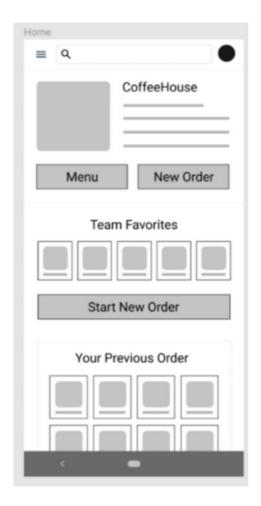
There are two levels of wireframing, low fidelity and high fidelity — though you can go straight from a low fidelity wireframe to a prototype and skip high fidelity wireframing as a distinct step.

Low fidelity is the most basic type of wireframing. It's so simplistic, that paper and pen will still suffice as a way to represent your ideas, however, creating your wireframes in Figma will allow you to easily share them and make sure your team has access to your latest thinking as you iterate. Low fidelity wireframes are done in grayscale with a focus on layout and high-level interactions. UI elements and content are represented by basic shapes like squares, triangles, circles, and lines.



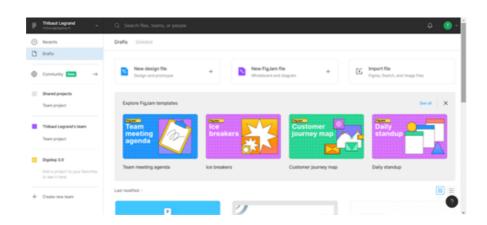
# High fidelity wireframing

High fidelity wireframing takes what you put together in the low fidelity stage and sprinkles in more of the detailed elements. High fidelity wireframes include visual markers and branding signifiers like colors, graphics, and font style. UI elements look realistic and might even include textures and shadows. At this stage, a designer might also choose to add in images and copy.



# Step 1- Go to Figma

First step, but the most important one, is to go to Figma. Then click on "New design file" for your project.

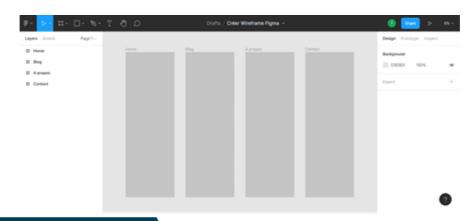


# Step 2: Create your different pages

You will then arrive in an empty space. You can rename your file by clicking on "Untitled". Next, you can create your different pages using the rectangle shape tool. Click on the rectangle shape or click on R and draw a rectangle in the creation space. You can now define its length and width by clicking on your shape and setting the parameters W (Width) and H (Length). Repeat for all your pages.

For our tutorial, we will take the example of a site with 4 pages (Home, Blog, About, Contact). We have defined a width of 1680, the height is adjustable according to the content. For the moment, we are going to start with 4 rectangles of the same size, but the length can evolve.

For each rectangle, you can create frames with the name of your pages. To do this, in the bar on the left, you can right-click on one of your rectangles and click on "Frame selection" or select your rectangle and "Ctrl + Alt + G". Then rename your frames.



# Step 3: Create your navigation bar

Now that you have your pages, you can insert your navbar at the top (or on the side of your pages). To do this, you can create a rectangle of the same width as your page and with the length of your choice. In our example, we will use 60\*1680.

By clicking on the rectangle, you can give it a colour (in the "fill" part of the right-hand side). For our example, we decide to put a logo on the right and a page menu on the left. For the logo, we take an icon that we insert into our file and resize. And we add 4 texts (for our 4 pages). In the design tab, you can change the font, size, colour, etc. Then we select all the elements of our navbar and come frame the selection. We rename the frame "navbar".

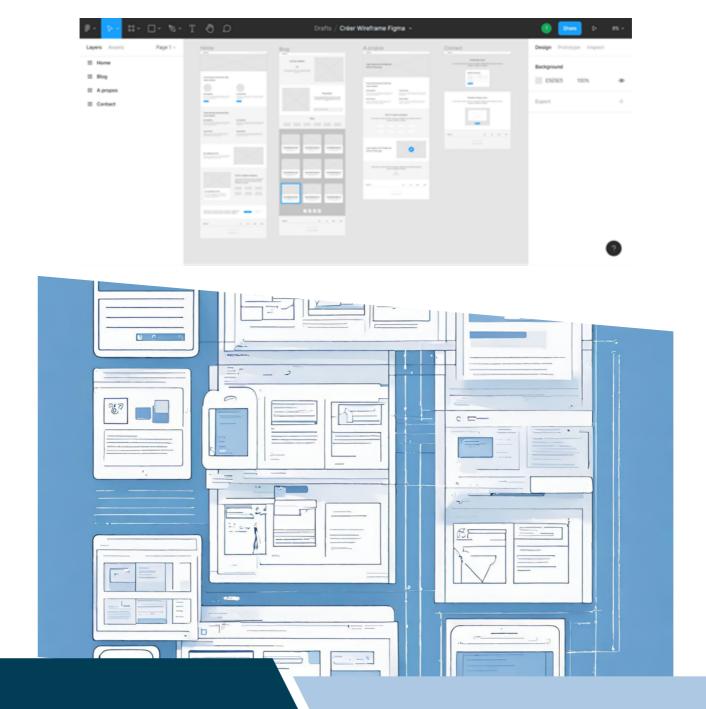


Then, we are going to place this frame in the different pages, by duplicating it several times (here 4 times) and by positioning it in each page. You can drag the "navbar" frame into the different page frames.



# Step 4: Fill in your pages

In the same way as the navbar, you can create shapes, texts, insert images and icons to feed your pages. Please note that this is only a wireframe, so there is no need to push the design. Simple shapes, image semblances and texts will allow you to structure your pages. The aim is to have a coherent layout. However, don't forget to group your sections and rename them to have a clear vision.



Figma is a web based collaborative design tool. You'll be designing a small calculator app to understand how to use Figma.

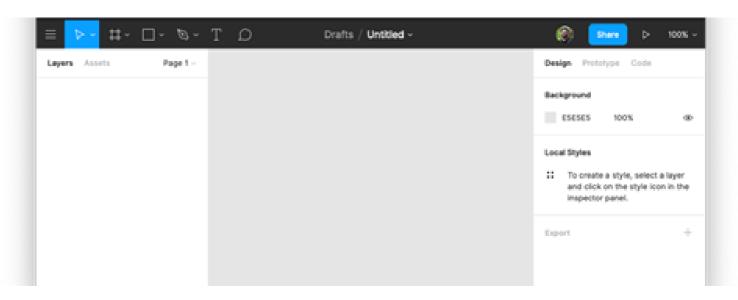
## Initial setup

Go to https://www.figma.com and create an account

Create a new project using the + icon in the upper left corner and create a new project

The new project screen will appear, like so:

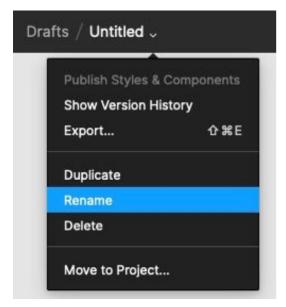
The blank project screen looks like the image on the left. There are 4 parts to the Figma UI:



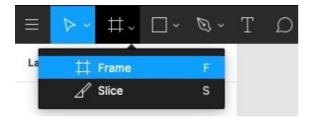
the toolbar (top), containing different design manipulation tools; the layer list (left); the inspector (right); and the canvas (middle).

Notice that the inspector has 3 tabs: design, prototype, and code. We'll spend most of our time in the design tab.

Click the arrow in the top-middle of your screen to rename your project to "Calculator":



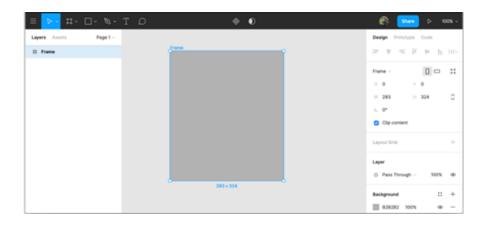
Select the "Frame" tool:



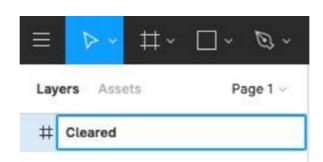
Create a frame for the calculator screen by dragging on the canvas to draw a rectangle. This frame is the main background for our calculator onto which all the elements will be placed. Don't worry about the exact size or position yet; we'll set that in the next step.

(General note: if you make a mistake, control-Z (Windows) / command-Z (macOS) works. Add a shift modifier to redo something you undid.)

Using the inspector verify that the default "Move" tool is selected. If the frame that you created isn't already selected, click on it to select it. In the inspector (right side), ensure that the "Design" tab is selected. Using the inspector, change the width of the frame to 283 and the height to 324. Also change the background color to #B2B2B2. Finally, set the X and Y each to 0, and scroll the canvas to find your frame again if necessary.

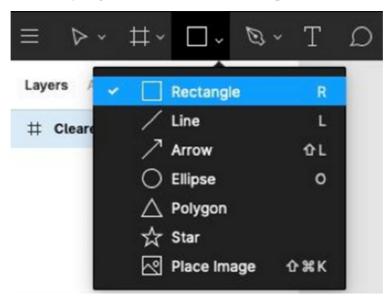


# Layer names



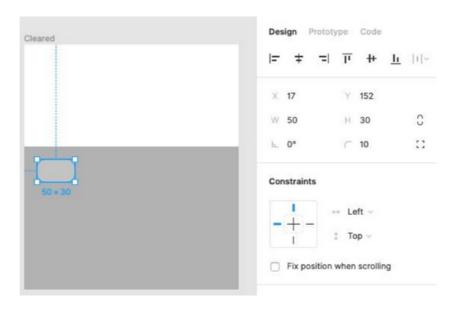
In the layer list (left side), double click on the frame that you created and rename it to "Cleared". This is the name we will use for this screen. By the end of the tutorial, we will create several screens (frames) for different states of the application and connect them together into a clickable prototype, so naming the frame helps keep things straight. "Cleared" means the initial, empty state of the calculator, before any buttons are pressed, or else after the "C" button is pressed.

Adding the calculator display select the Rectangle tool from the Toolbar:



Drag an area on the canvas to add a rectangle. This will be the screen of the calculator to display numbers, operations, and results. Using the inspector, set the rectangle's X to 0, Y to 0, width to 283, height to 135, and color to #FFFFFF (i.e. white).

### The first button



Add a smaller rectangle for the calculator buttons. Start by guessing a size and location similar to the one shown to the left, then use the inspector to fine-tune. Horizontally drag the width and height values in the inspector to set the width to 50 and height to 30. Use your arrow keys to set X to 17 and Y to 152. Set the color to #C4C4C4. Set the border radius to 10.

### The first label

Select the text tool from the toolbar.

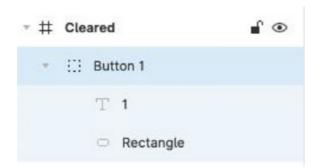
Click on the button you just created to add a text label, then type '1' and hit escape. Either using the inspector or the canvas, make it the same size (width/height) and position (X/Y) as the button. Using the inspector, set the label's horizontal alignment to center, vertical alignment to middle, font to Roboto, and size to 24, as shown to the right.

When done, your button and label should look like this:

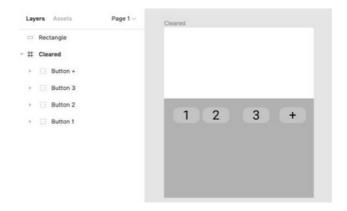


# **Grouping elements**

Find the button and the label in the layer list (left side). Select them both by holding control (Windows) or command (macOS) while clicking. Right click the selection and select "Group Selection". Double click on the new group in the layer list to rename it to "Button 1".



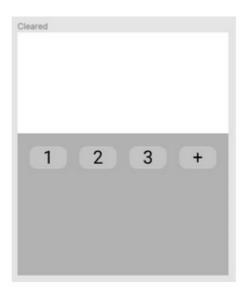
# **Duplicating elements**



Select the group (not the button or label individually), then hit control-D (Windows)

/ command-D (macOS) to duplicate the group. Move the new group to the right by clicking and dragging the element in the canvas. Don't worry about getting the position just right yet, but put them roughly in a horizontal row. Rename the group "button 2", and change the text of the label to 2. Repeat to create a new button 3 and a new button +.

# Positioning elements



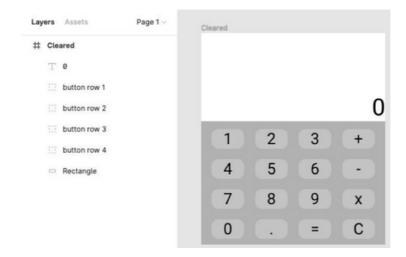
You may have noticed that dragging an element in the canvas pops up various alignment and spacing helpers. These are useful, but there are more powerful tools to use to get things just right. Select the 4 buttons. (Hint: use shift-click to add to the current selection.) If they're not vertically aligned, select "align vertical centers" under the "arrange" menu (see the "hamburger" icon in the top-left for the menu). Move them as a set to align the set to the center of the frame. Then use the menu to "distribute horizontal spacing" (under "arrange"). If the buttons feel too close or too far apart, move a button on either edge, re-align, and re-distribute.

## **Duplicating rows**

Apply your learning so far to fill out the remaining 3 rows of buttons. (Hint: group the buttons in a row in order to distribute rows vertically.)



# Add the display label



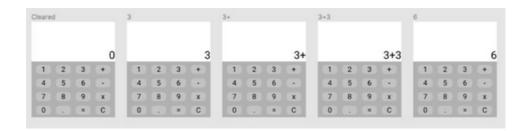
In the initial state, our calculator displays 0. Add a text element 0 to the display screen, sized the same as the rectangle. Its alignment should be bottom-right, and its font should be Roboto, size 36. Group it with the display rectangle.

Note: if the text doesn't appear, you may have to move the display rectangle element down in the layer list to be after the text element.

### Create other screens

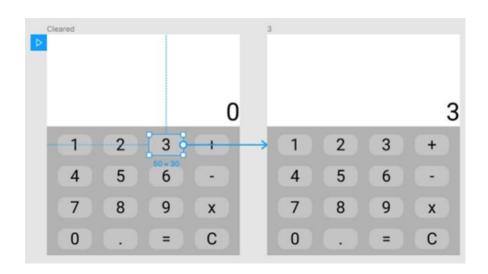
In the layer list, select the top-level frame, which you named "Cleared" in Step 3. Duplicate the frame, move it to the right of the first frame, change the display label to "3", and rename the frame to "3".

Create other screens whose labels and displays are "3+", "3+3", and "6", respectively, for a total of 5 screens. Hint: you can zoom out to see more canvas at a time—see the zoom control in the upper-right of Figma's UI.

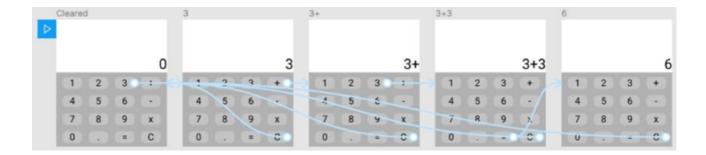


# Create a clickable prototype

Select the first frame (named "Cleared"), and select the "prototype" tab of the inspector. Select Button 3 within the frame. Notice the blue circle on the right edge of the button. Drag that circle to the frame labeled "3".



Likewise, connect the "+" button in the "3" Frame to the "3+" Frame, and likewise for the next "3" button and the following "=" button. Finally, connect the "C" button of all but the first frame to the "Cleared" frame. After deselecting all frames, your prototype connections should look like this:



# Present the clickable prototype

Finally, the payoff. Click the "play" triangle icon in the upper right of the Figma UI to see the clickable prototype in action.

# **SOURCES**

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https://mockitt.wondershare.com/home.html

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https://www.bionicrab.com/temp/ux-

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# **CREDITS**

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