

# **Figma Lab Guide**

**CS3240 2023/24 SEM 2**



# This guide covers...

## 1. Introduction

Getting started with Figma 

## 2. Basic Design

Designing a simple Instagram clone 

## 3. Advanced Design

More advanced design features 

## 4. Prototyping

Putting it all together 

## 5. Tips for Speed

Levelling up with AI/productivity tools 

# Introduction



# What is Figma?

01

## Design Tool

Design together in real time (It's like Google Docs for Design!)

02

## Prototyping Tool

Create realistic prototypes and quickly iterate through flows

03

## Design Systems

Standardize components and variables for reusability in designs

04

## FigJam

Online collaborative whiteboard for all kinds of meetings

# Getting Started

01

**Create a Figma  
account**

<https://www.figma.com/>

02

**Get verified as a  
student (optional)**

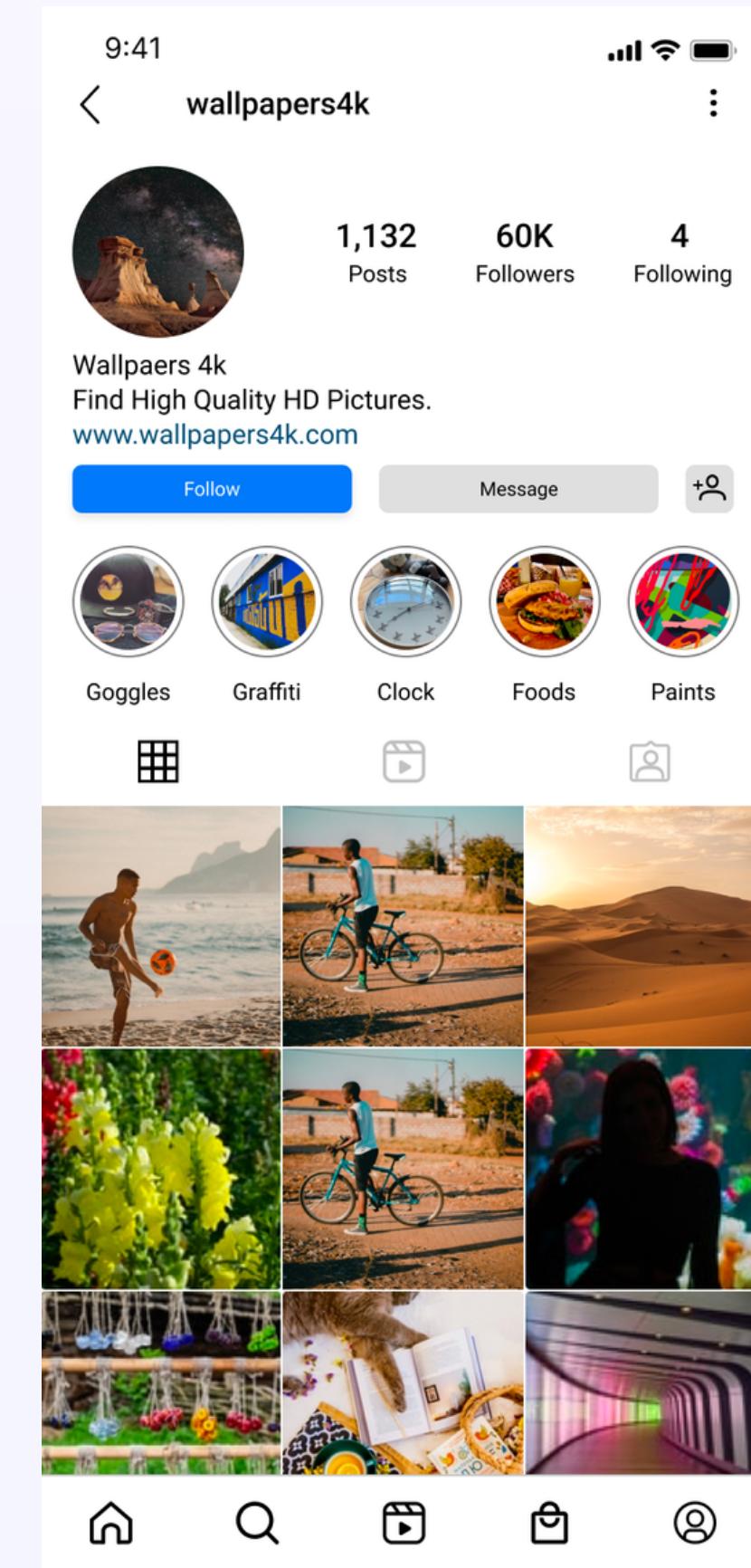
[https://www.figma.com/edu  
cation/higher-education/](https://www.figma.com/education/higher-education/)

03

**Get the desktop app  
(optional)**

[https://www.figma.com/do  
wnloads/](https://www.figma.com/do<br/>wnloads/)

# What we're building



# Basic Design



Charisma

Search files, teams, or people

Recents

Type, click, FigJam—generate a board using AI Beta

Ex: A weekly team meeting, starting with an ice breaker

Org chart with 3 levels

Flow chart with a decision tree

Weekly sync for a large product team

Generate

First, create a Design file

Teams

Recently viewed Shared files Shared projects All organizations All files Last viewed

CS3240 G2

Resumade - Team project

3240 Resume Tailoring

CCSGP Project

Charisma Kausar's team

Team project

Create new team

Interview Notes

Edited 5 months ago

Landing Page

Edited 4 months ago

IDE - Hi-Fi Prototype - Page 1

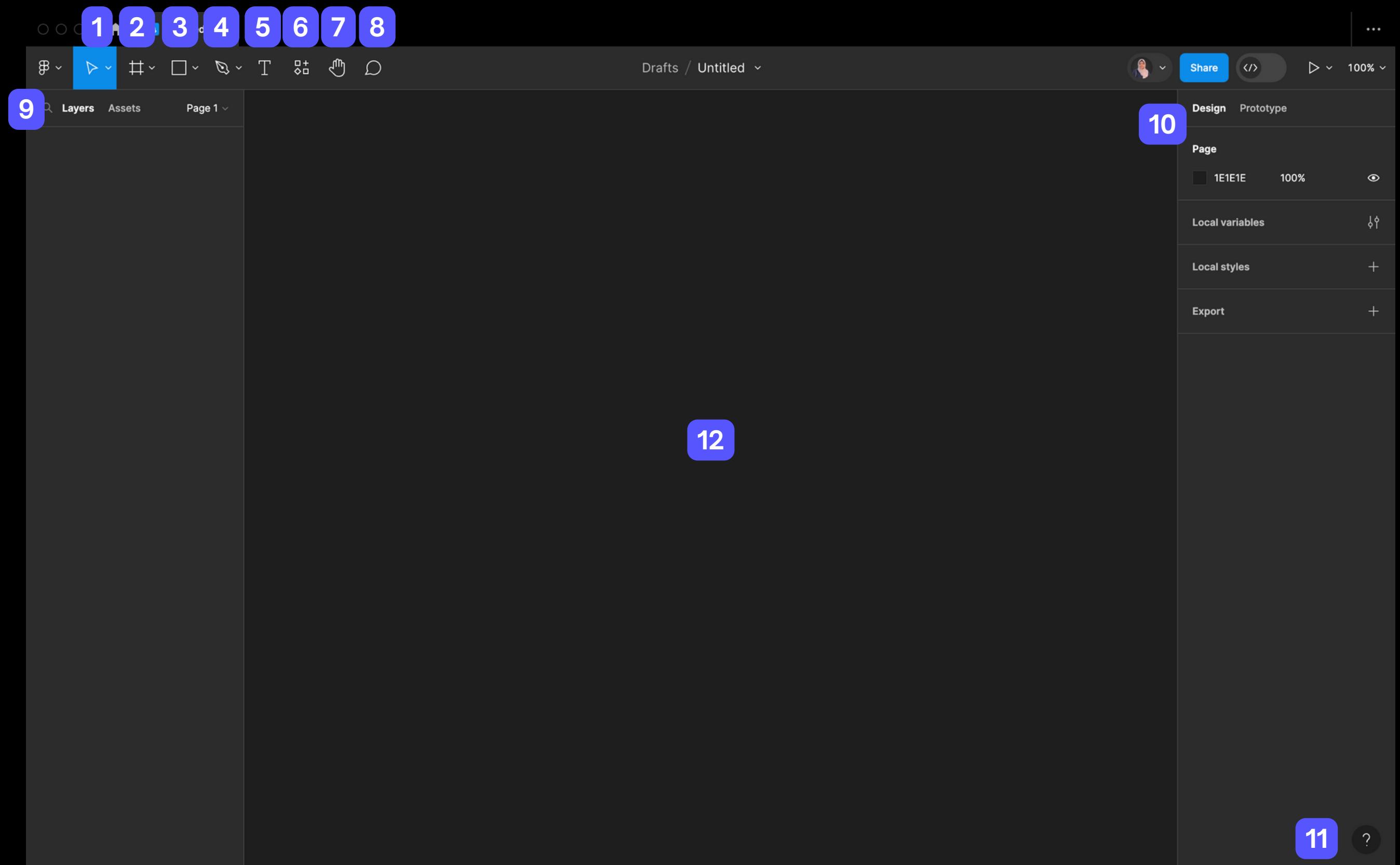
1 minute ago

Explore Community

+ Design file + FigJam board Import

# Learn the interface

1. Move tool
2. Region tool
3. Shape tool
4. Drawing tool
5. Text tool
6. Resources
7. Hand tool
8. Comment tool
9. Layers panel
10. Attributes panel
11. Help button
12. Workspace



# Navigate the workspace

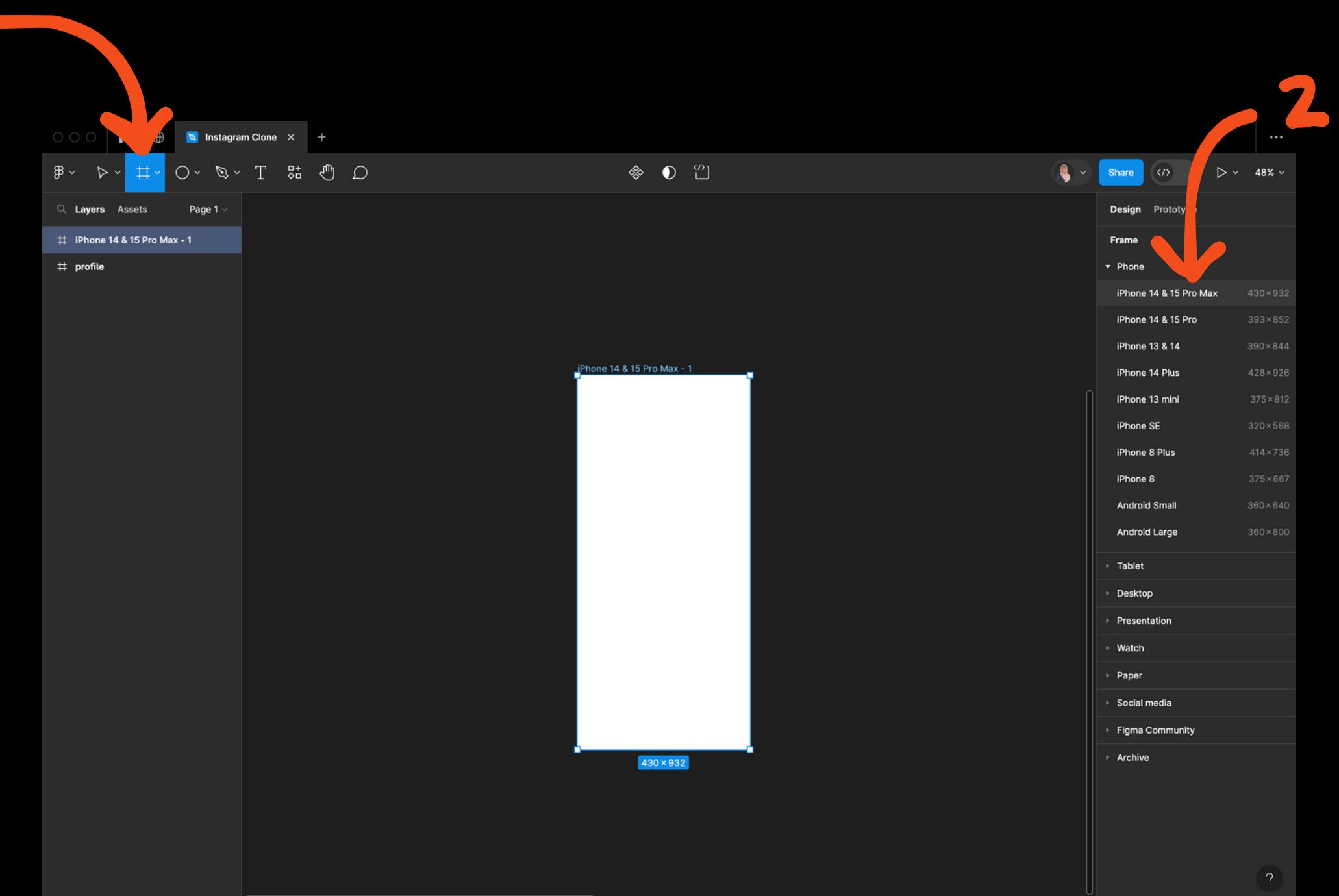
**Panning:** Hold space and drag, or use the mouse scroll

**Zoom:** Hold Ctrl and scroll or Hold Ctrl and +/- button

# Create a frame

Use the **Region tool** to add a frame.

Click and drag on the workspace to create a custom frame size or choose a frame size from the panel on the right.

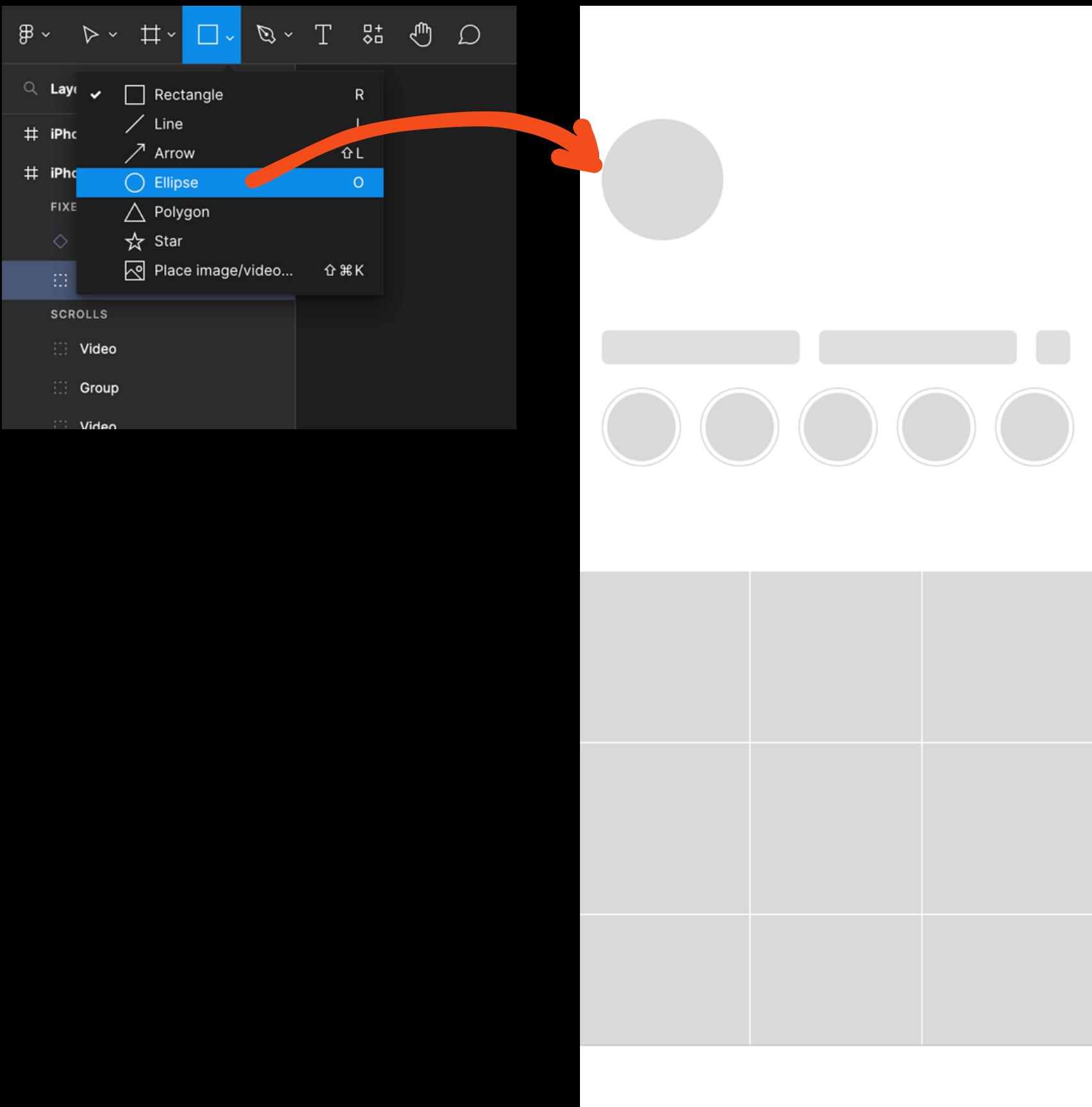


# Add shapes

Create the basic design skeleton of the UI.

Use the **Shape tool** to insert basic shapes and images onto the frame: profile image, buttons, stories and image gallery squares.

To constrain the proportions, hold down SHIFT while dragging to create a shape.

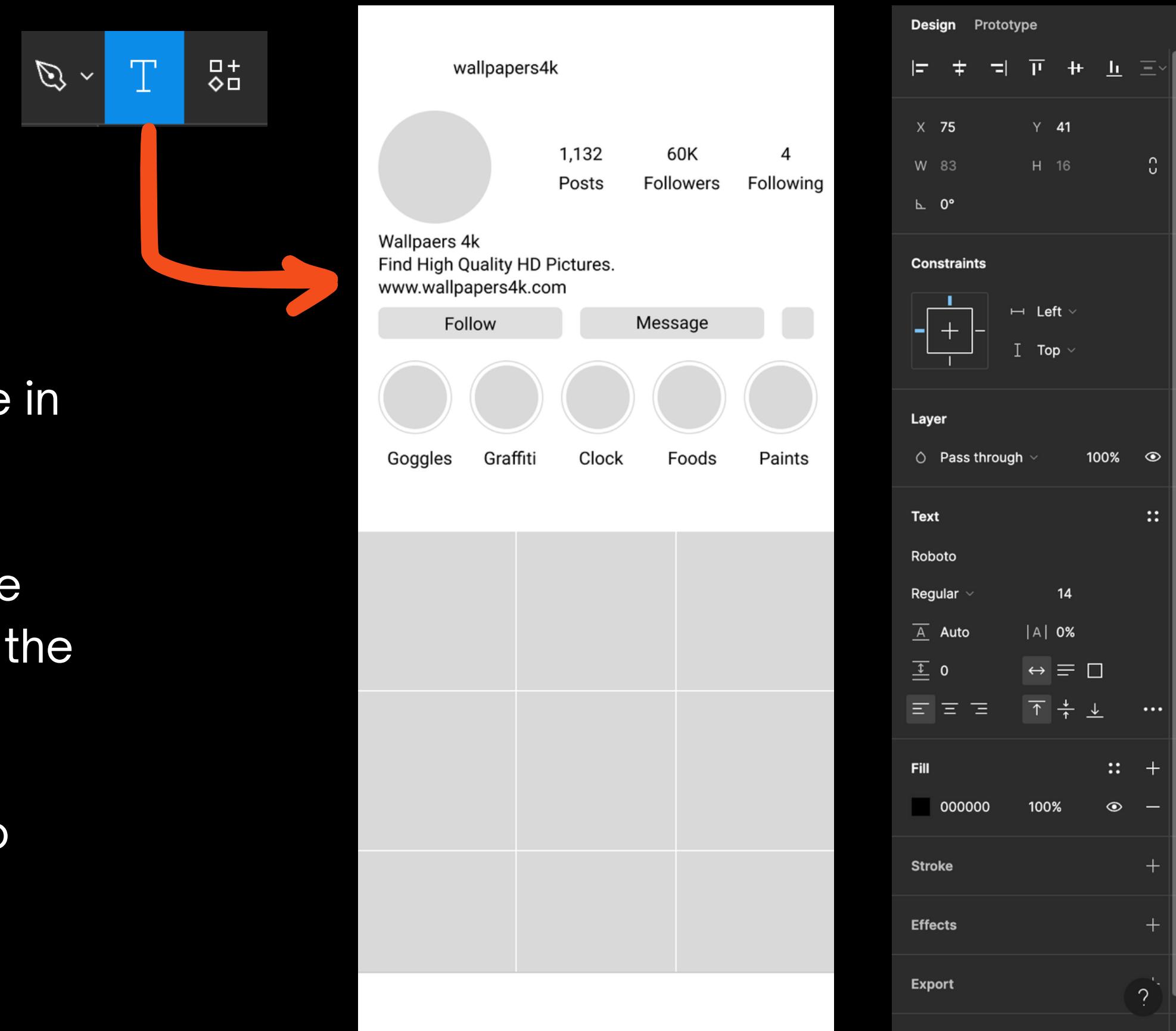


# Add text

Select the **Text tool** and click anywhere in the canvas to create a textbox.

The font size, color and typeface can be changed through the attribute panel on the right.

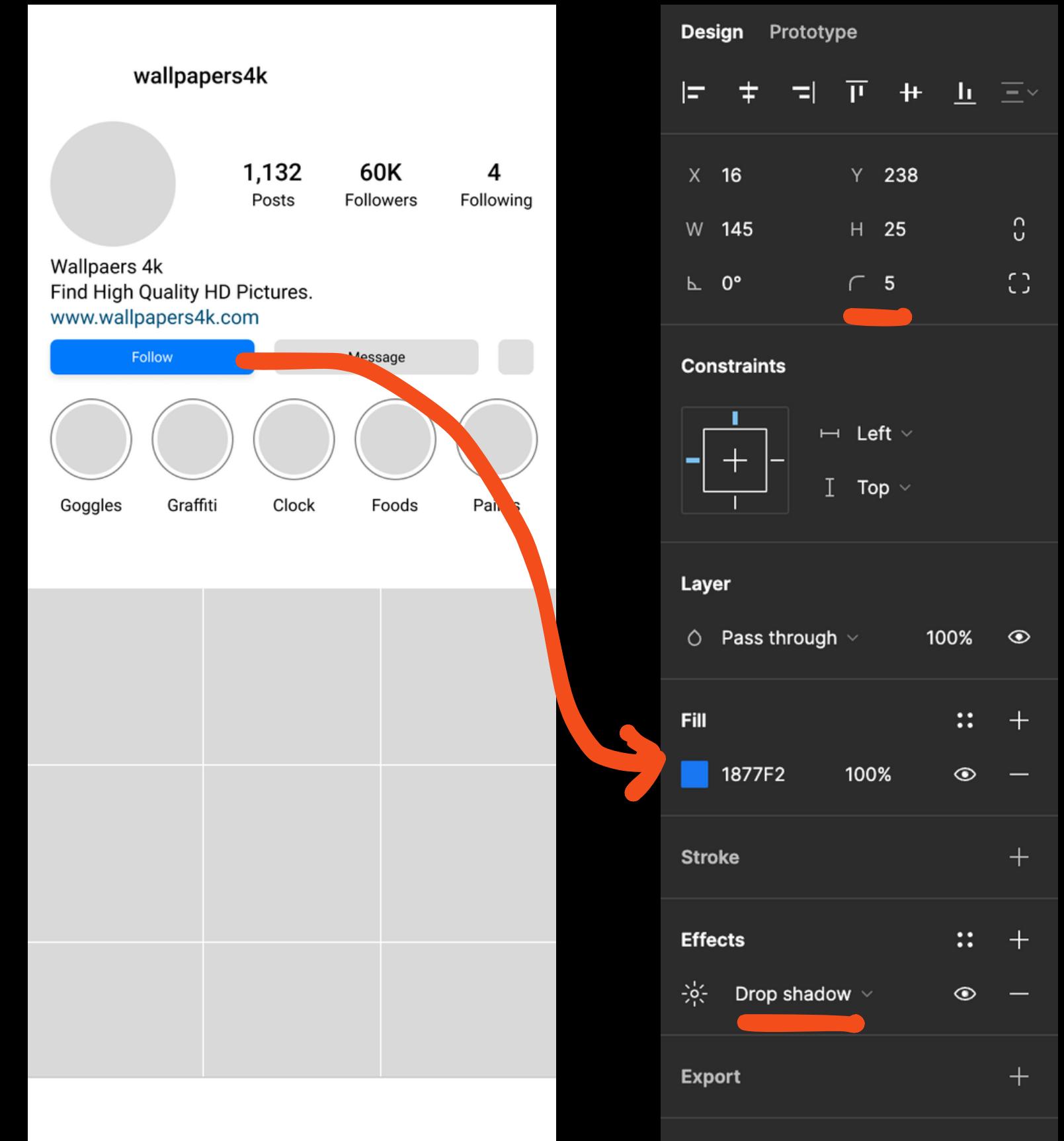
You can use the Text tool to add text to your Instagram mockup as shown.



# Set the attributes

Use the **Attributes panel** on the right to change attributes such as font styles, shape fills, effects, and more.

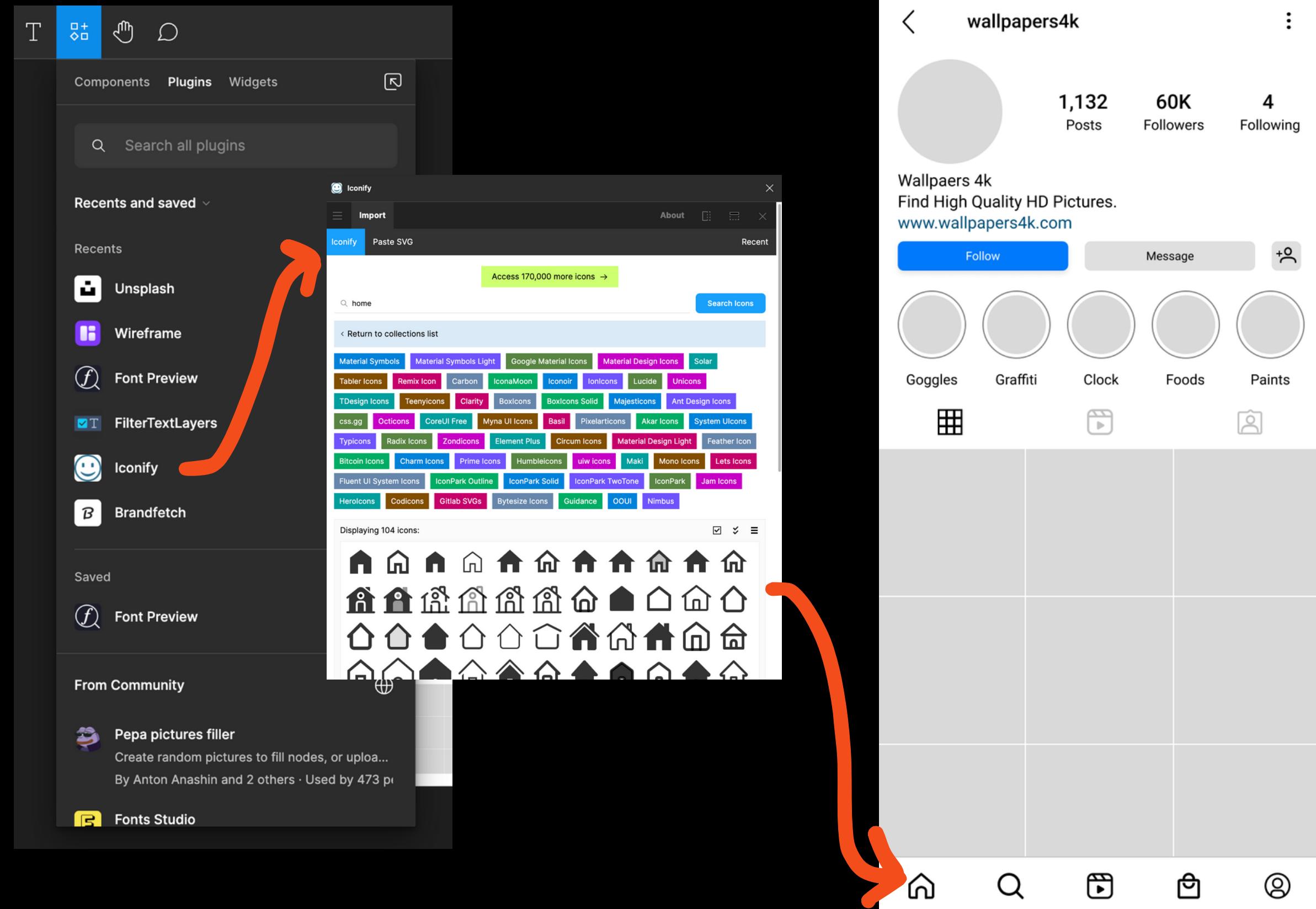
For example, for the Follow button here, you can change the fill color, the shadow effect and the border radius.



# Insert icons

Use the **Resources** option to search for **Plugins**.

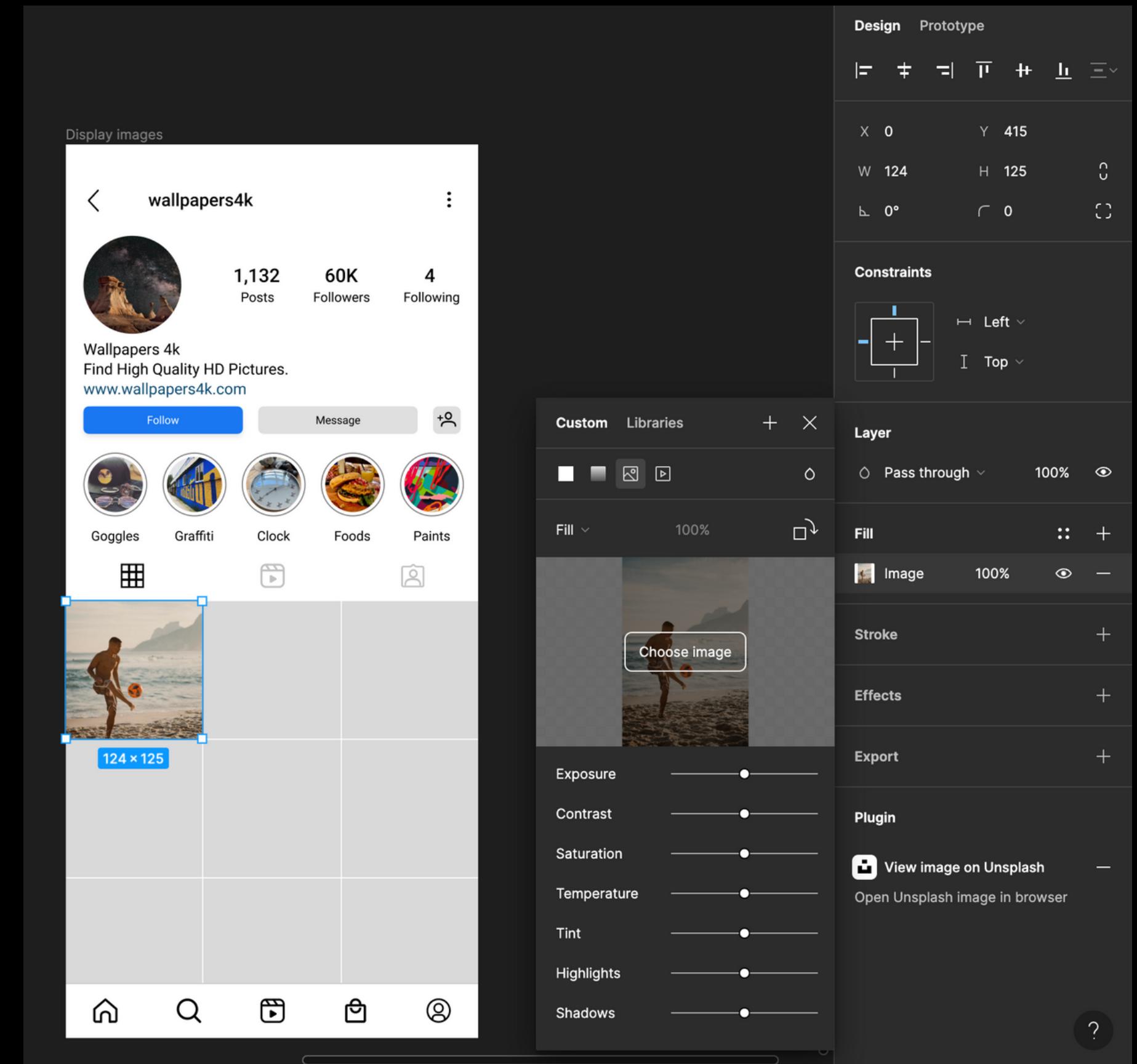
A very useful plugin for getting ready-made icons when designing UIs is **Iconify**.



# Display images

To insert your images into the shapes added in the design, simply click on the shape and add a **Fill** on the **Attributes panel**.

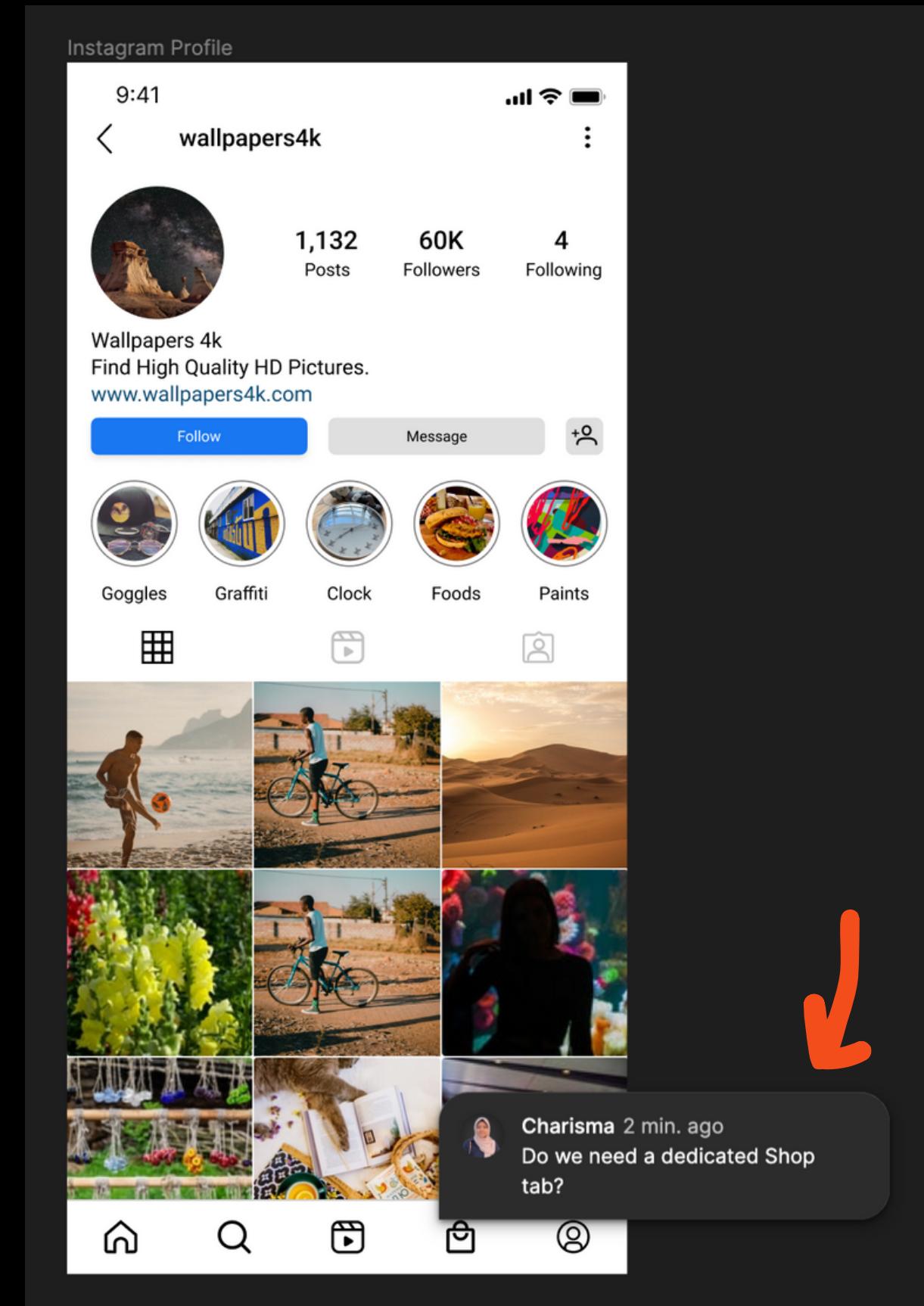
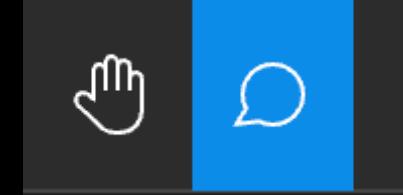
Pick the **Image** fill option and either choose an image from your file browser or copy your image, hover the sample fill image and press **Ctrl+V**.



# Make comments

Use the **Comment tool** to add any comments. This can be very helpful for keeping note of things or leaving notes for your teammates.

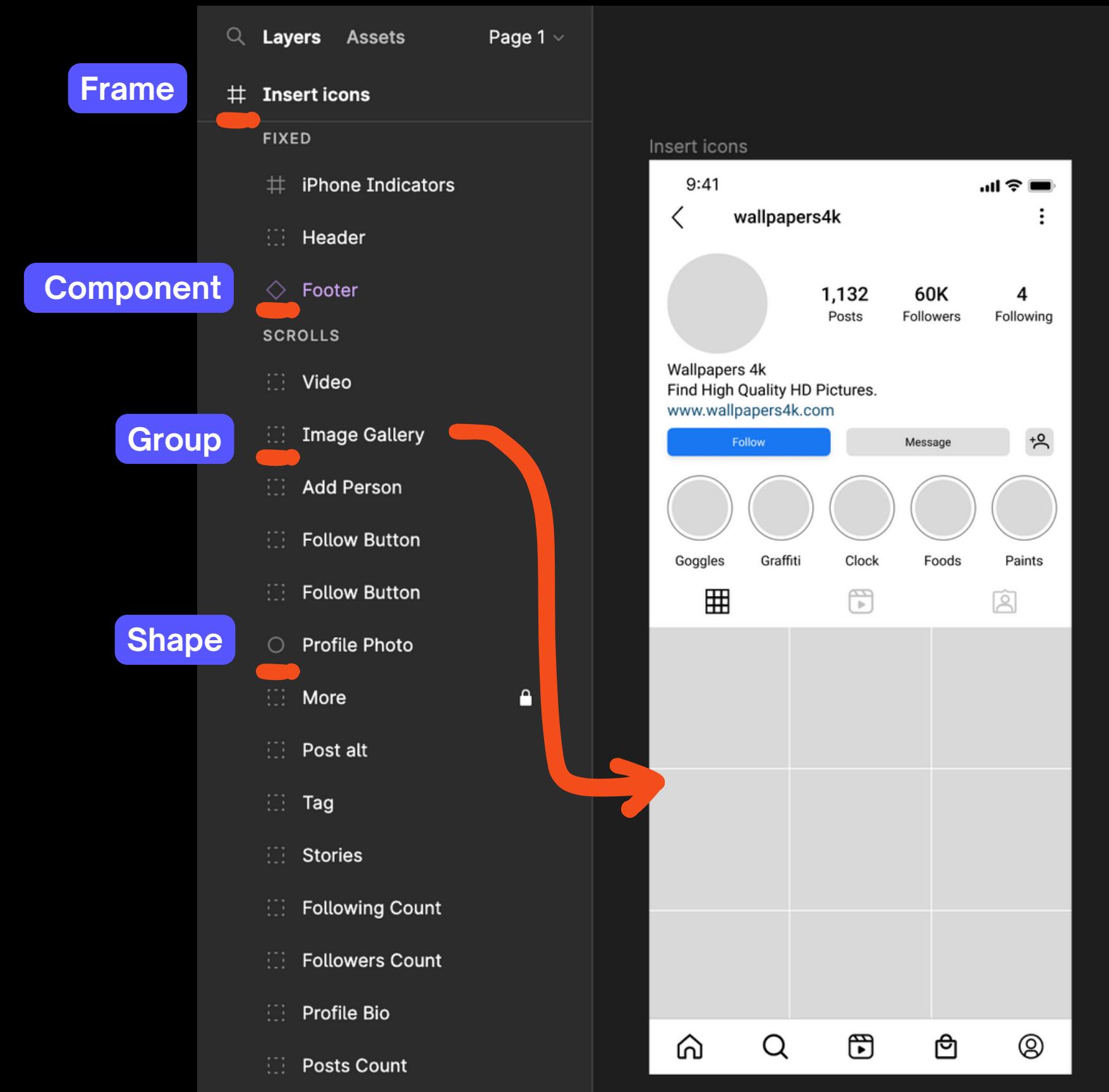
A badge appears on the comment tool when there's unread comments.



# Organize your layers

The **Layers panel** contains all objects created. Layer management is important when working on bigger design projects.

It is best to keep your designs organized by **Grouping** related objects. Groups can be manipulated as a single object. To group objects, select them and press CTRL + G.



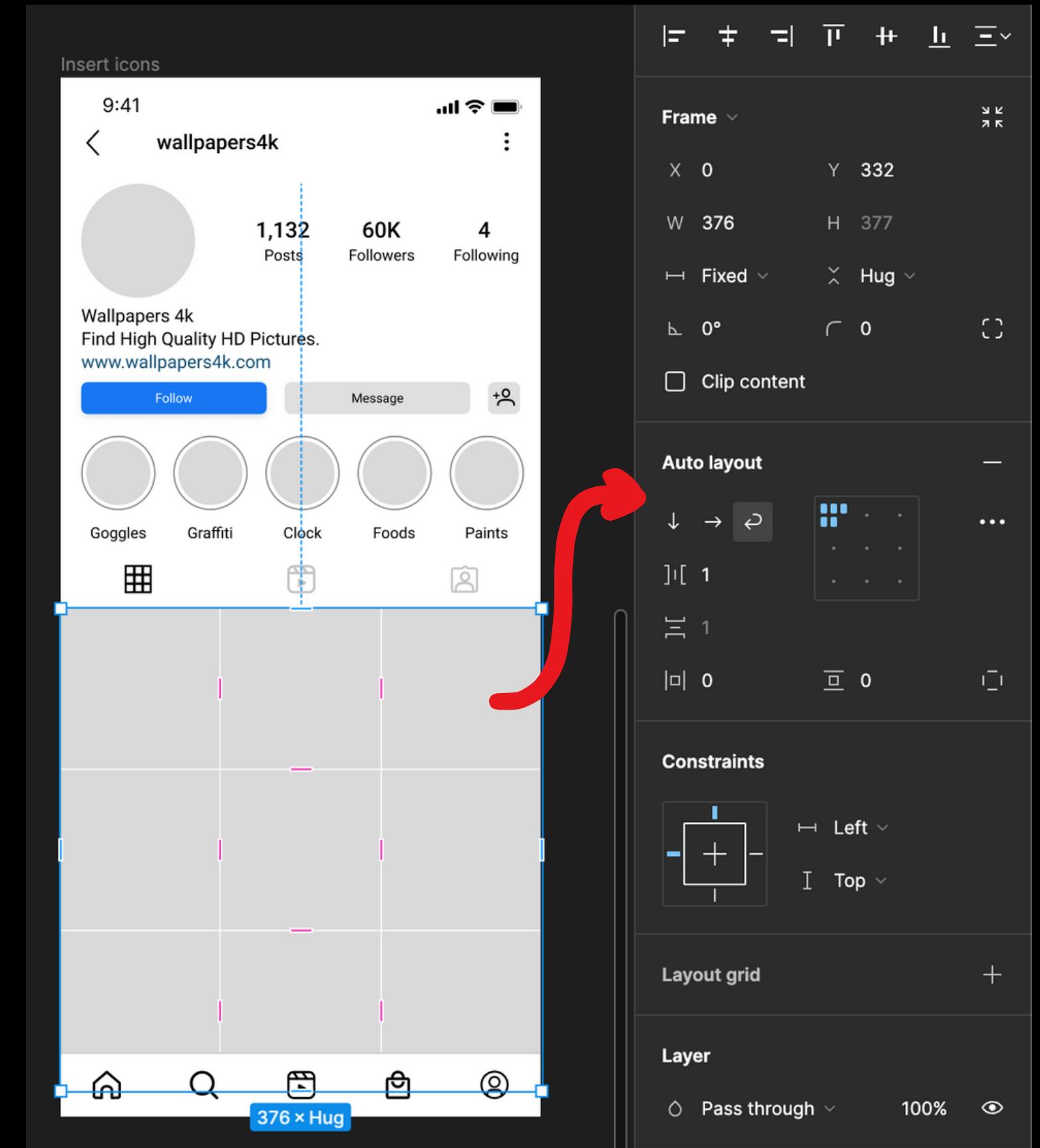
# Advanced Design



# Auto-layout

Use Auto Layout to automatically organise elements with padding and margin. It can be found on the **Attribute panel**.

Select all elements you want to auto-arrange and set the direction, spacing and layout options.



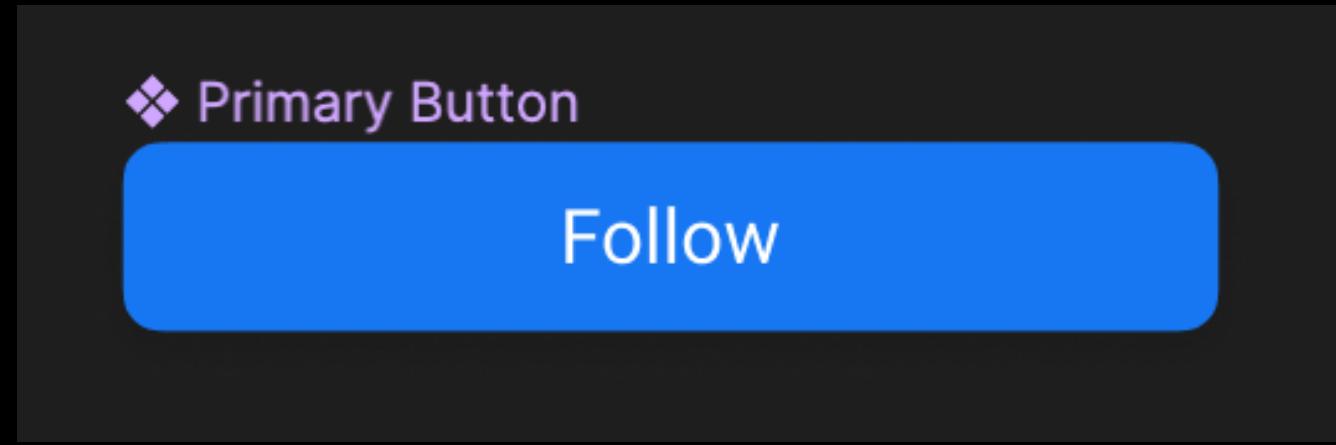
# Components

Components are reusable objects. As a general rule, if an element appears multiple times, it is best to convert it into a component.

# Master Component

**Master components** are the main definition of the component. Any changes to it are synced across all instance components.

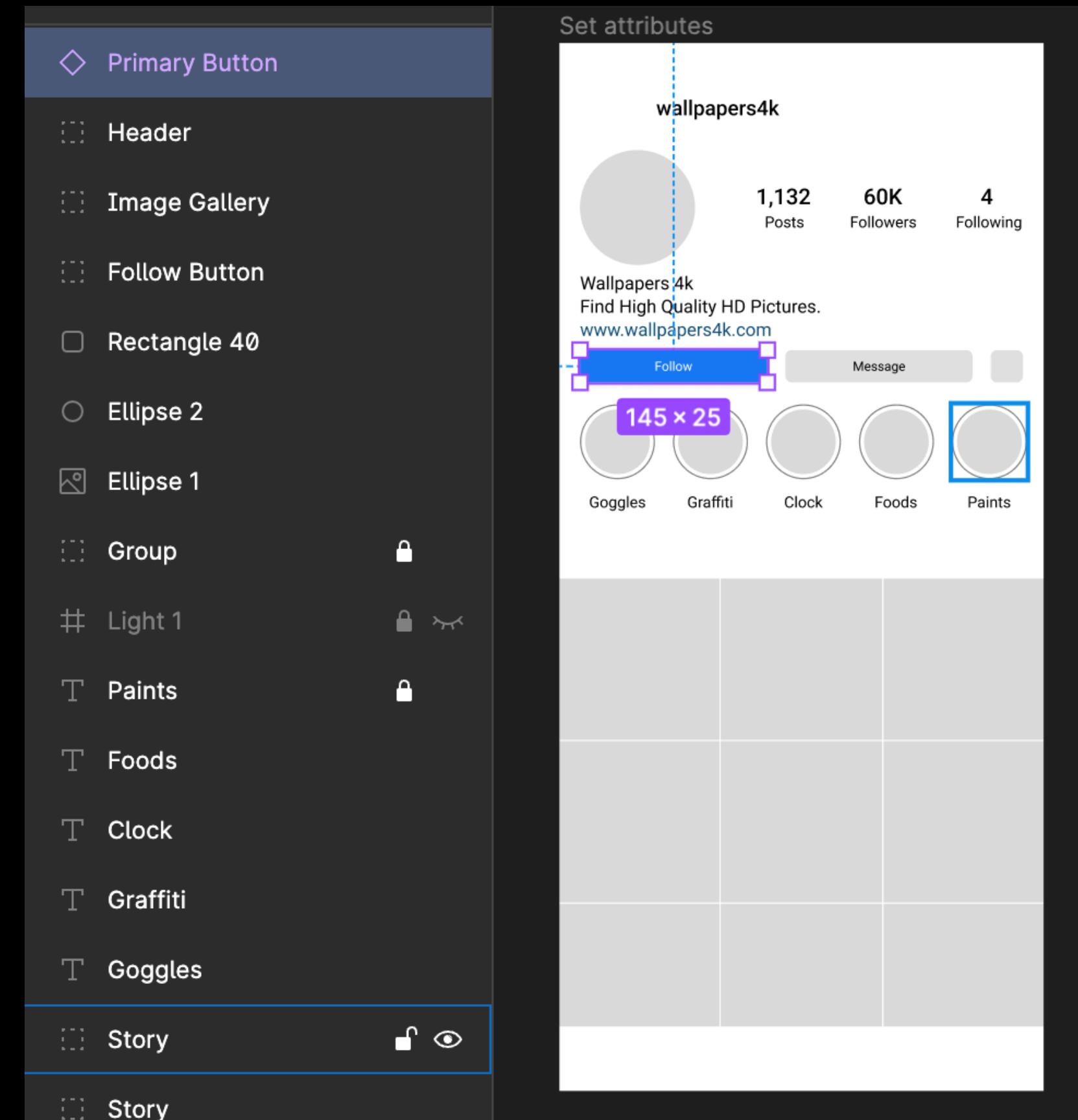
Select an object and Ctrl + Alt + K to create a master component.



# Instance Components

An **Instance component** is a duplicate of the master component.

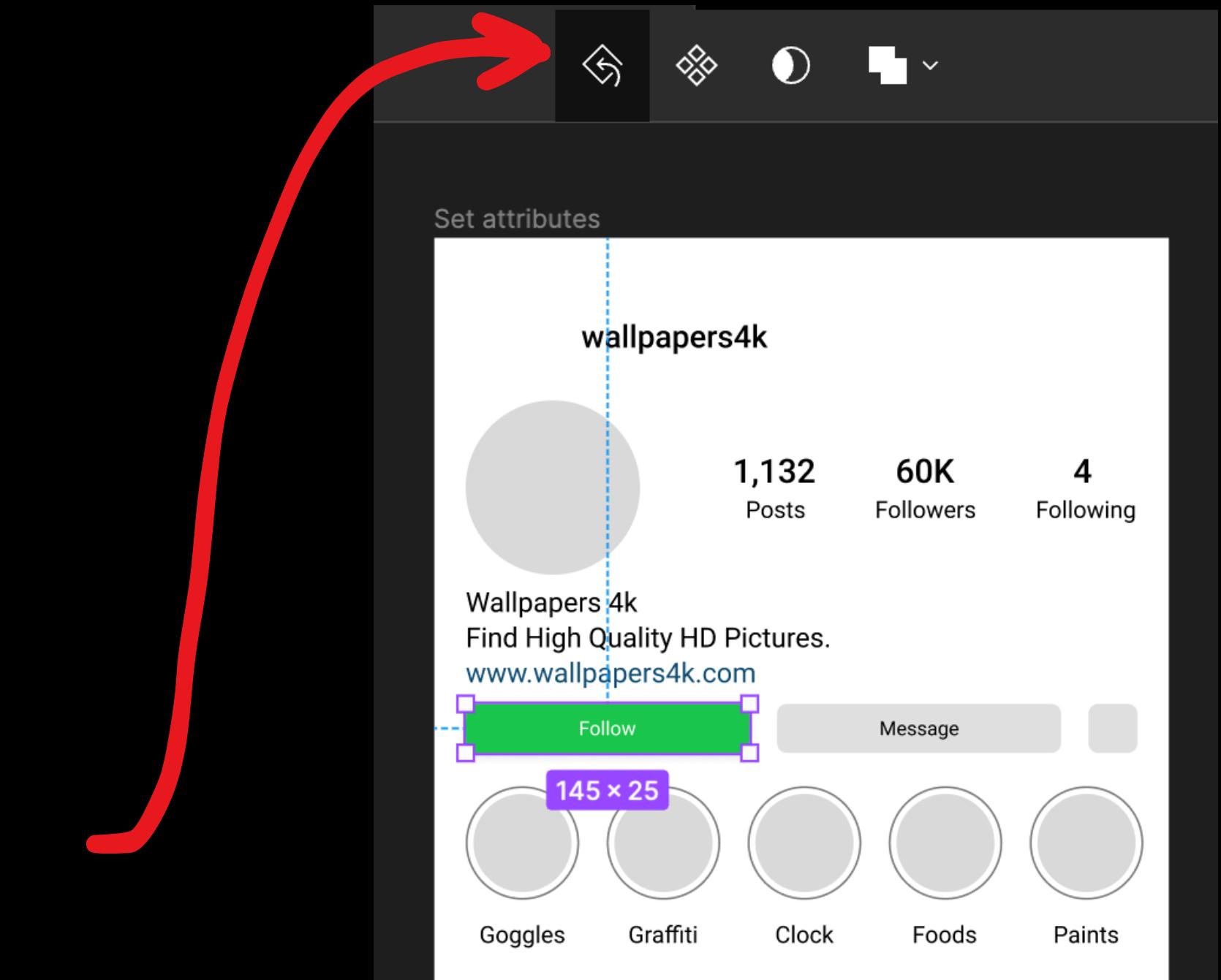
Select a master component and duplicate it (ALT + drag / CTRL + D) to create an instance component.



# Overrides

**Overrides** are changes made to instance components. Changes to master components would not affect an overridden instance component.

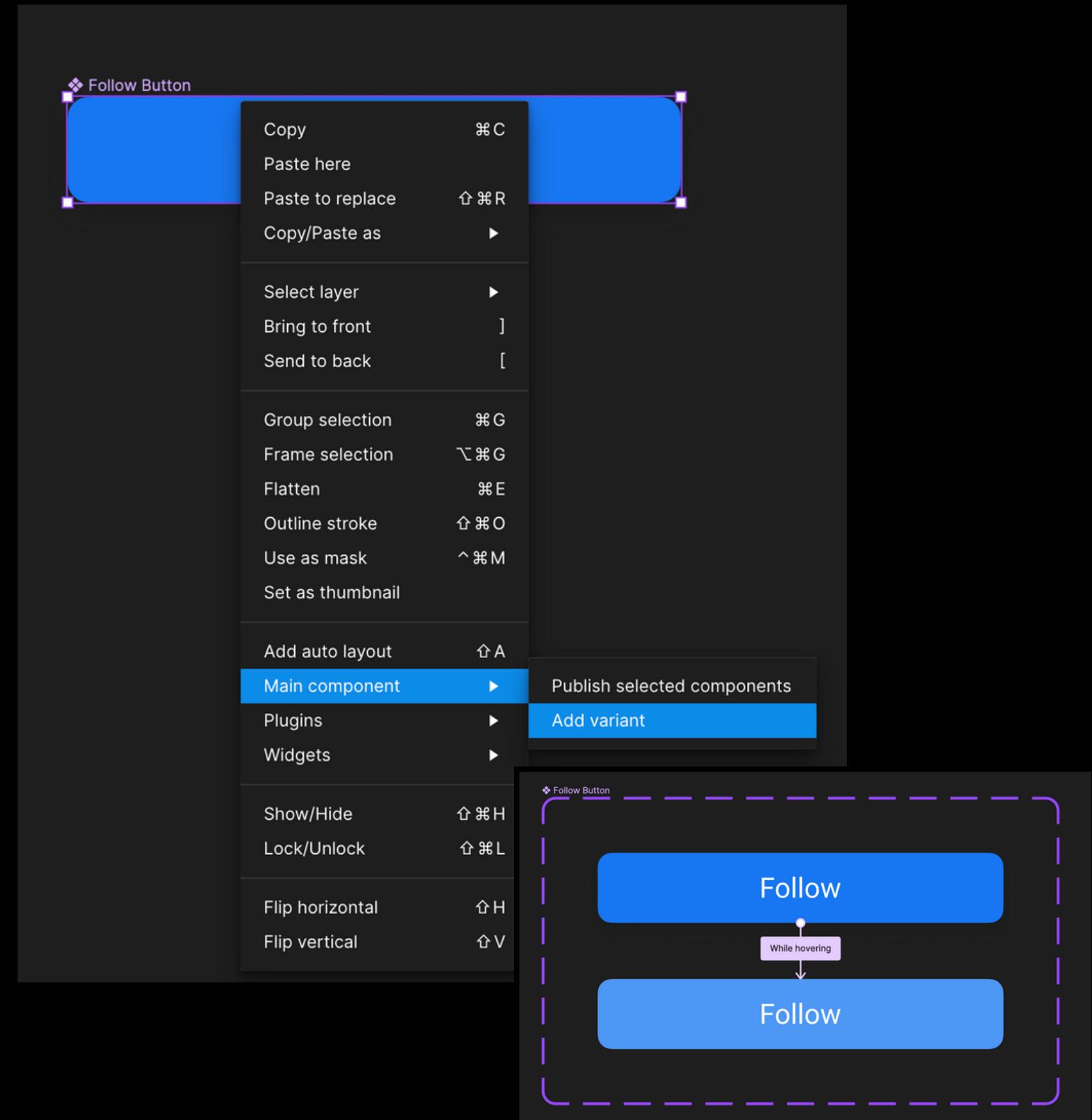
For example, an instance component with color changed to green will no longer be affected by master component's color change. To clear override, click on the **Reset instance** icon.



# Component Variants

**Component variants** are used to organize components with only slight differences.

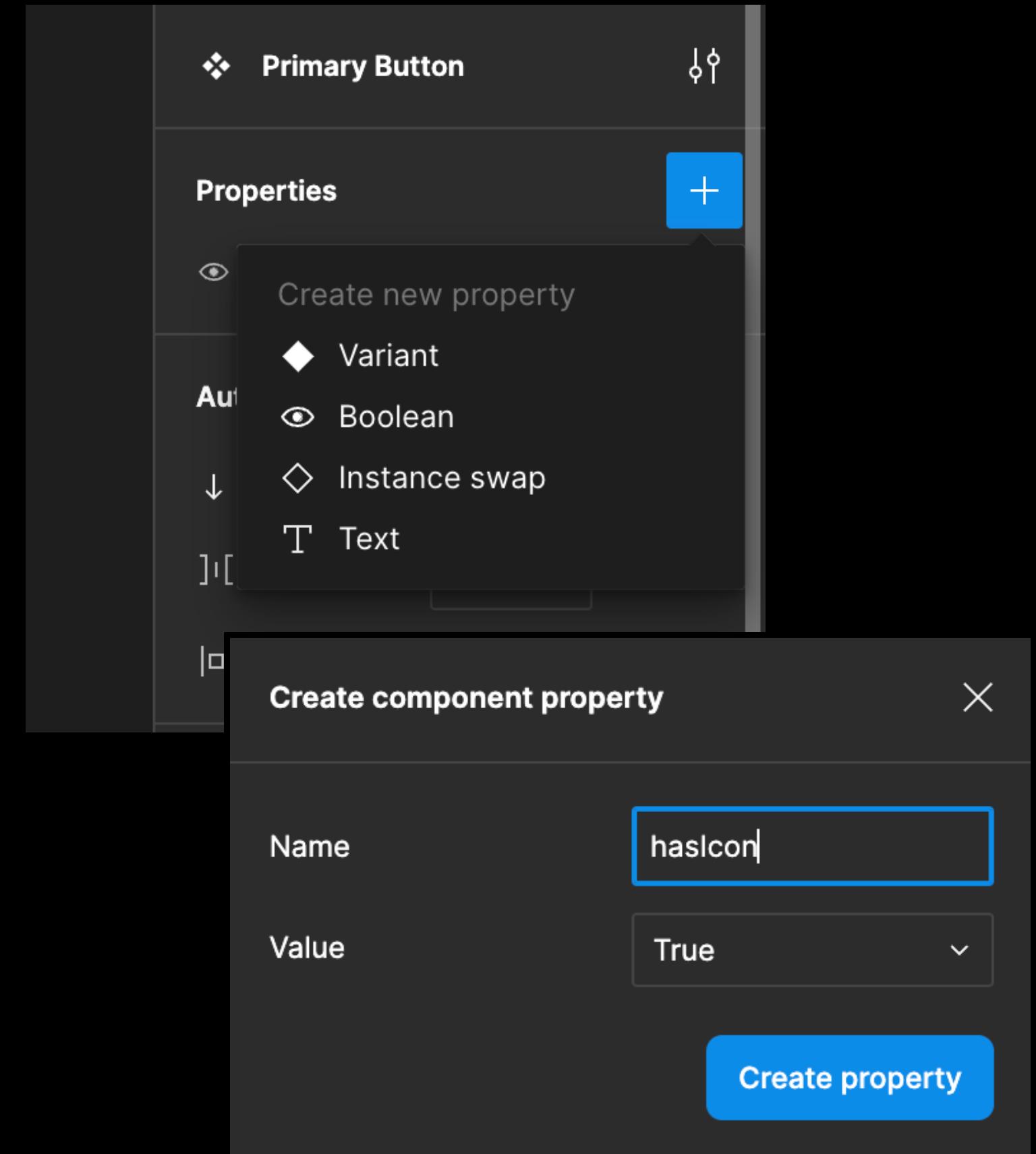
One example for using variants is to add buttons states such as on hover and on click. Right click on a master component and go to Main component > Add variant.



# Component Properties

**Component properties** are the changeable aspects of a component.

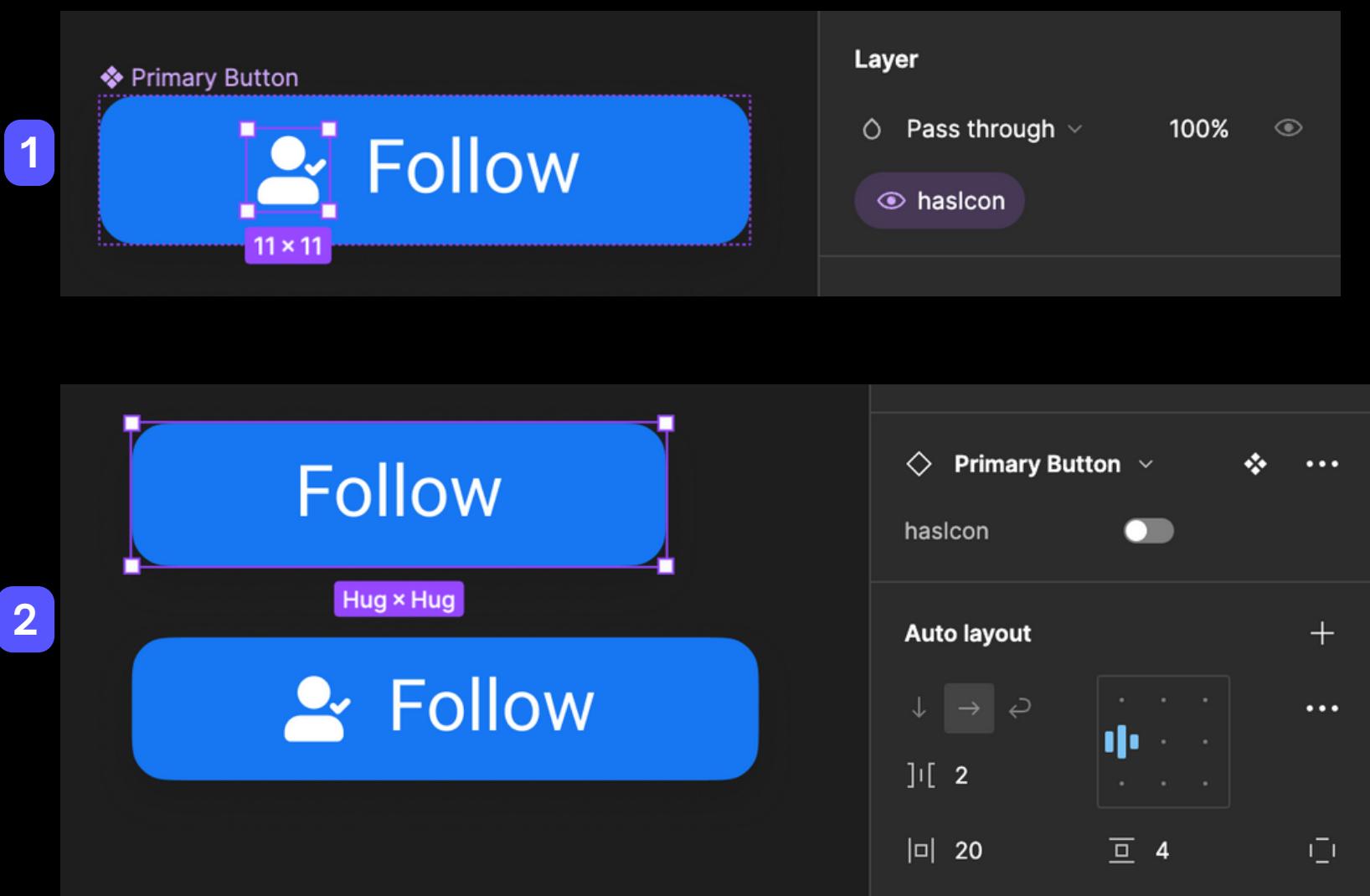
Select the master component and use the **Properties** menu to create a new property, for example, the Boolean *hasIcon*, with value *True*.



# Component Properties

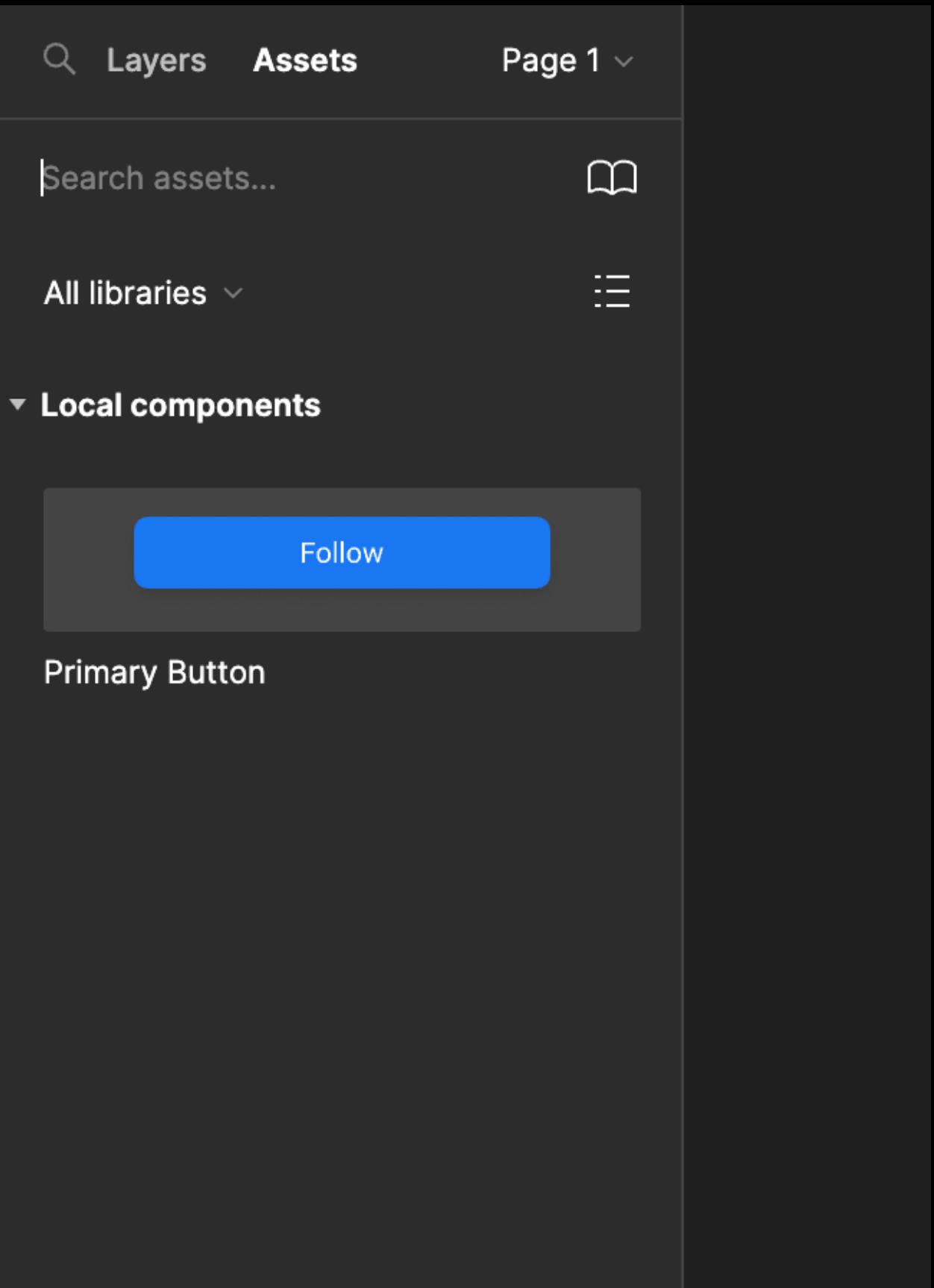
Add an icon to the master component, and set the visibility under **Layer** to be *hasIcon*.

Now, these component properties can be set by selecting the instance components and setting the required value from the **Attributes panel**.



# Assets Panel

Press ALT + 2 (windows) or OPT + 2 (Mac) to view all master components created on the **Assets panel**.

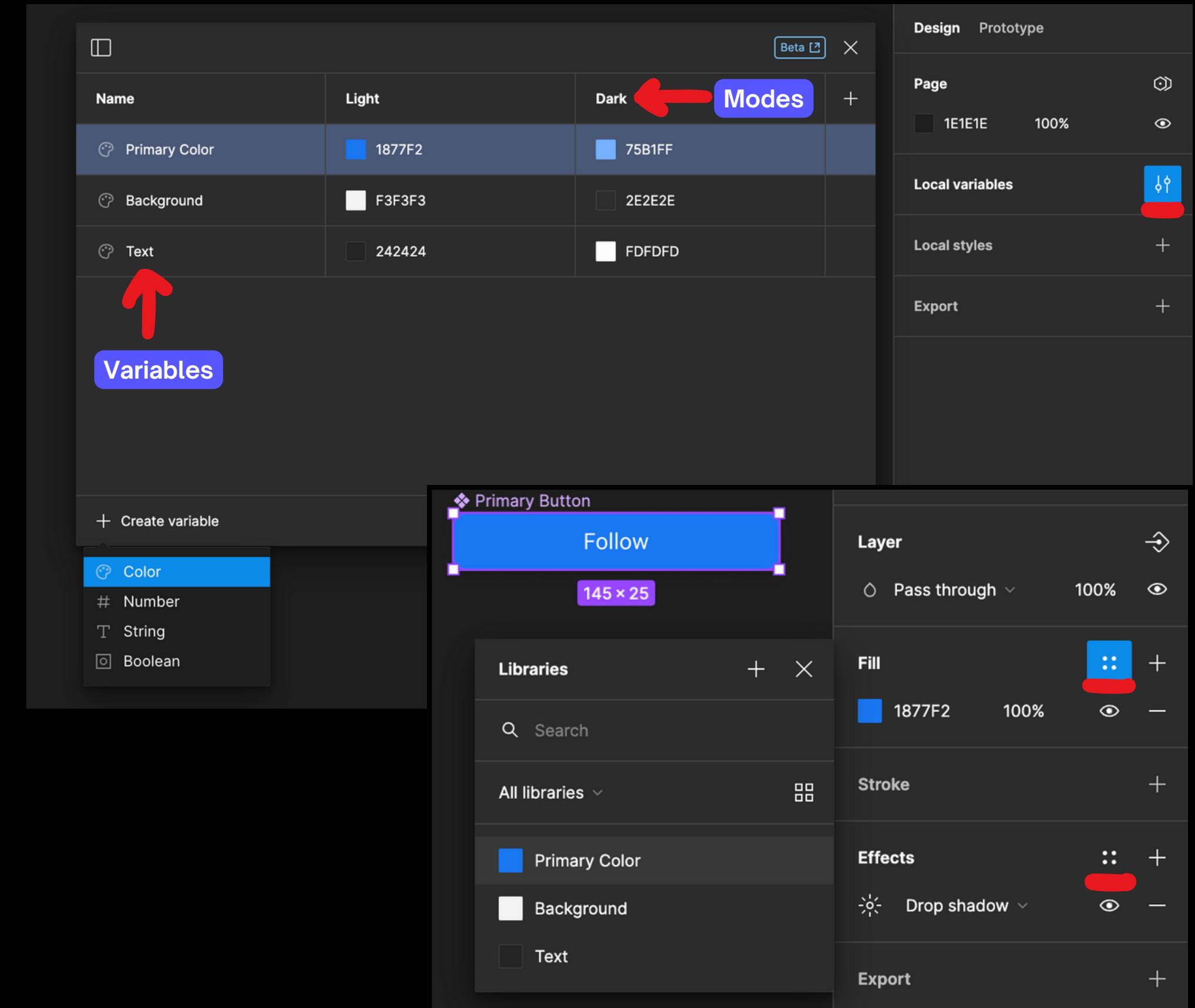


# Variables

**Variables** store reusable values that can be applied to design properties.

They can be created using the **Local variables** modal and accessed using the **Library** (four dots icon).

\*Adding multiple modes needs an education/paid plan



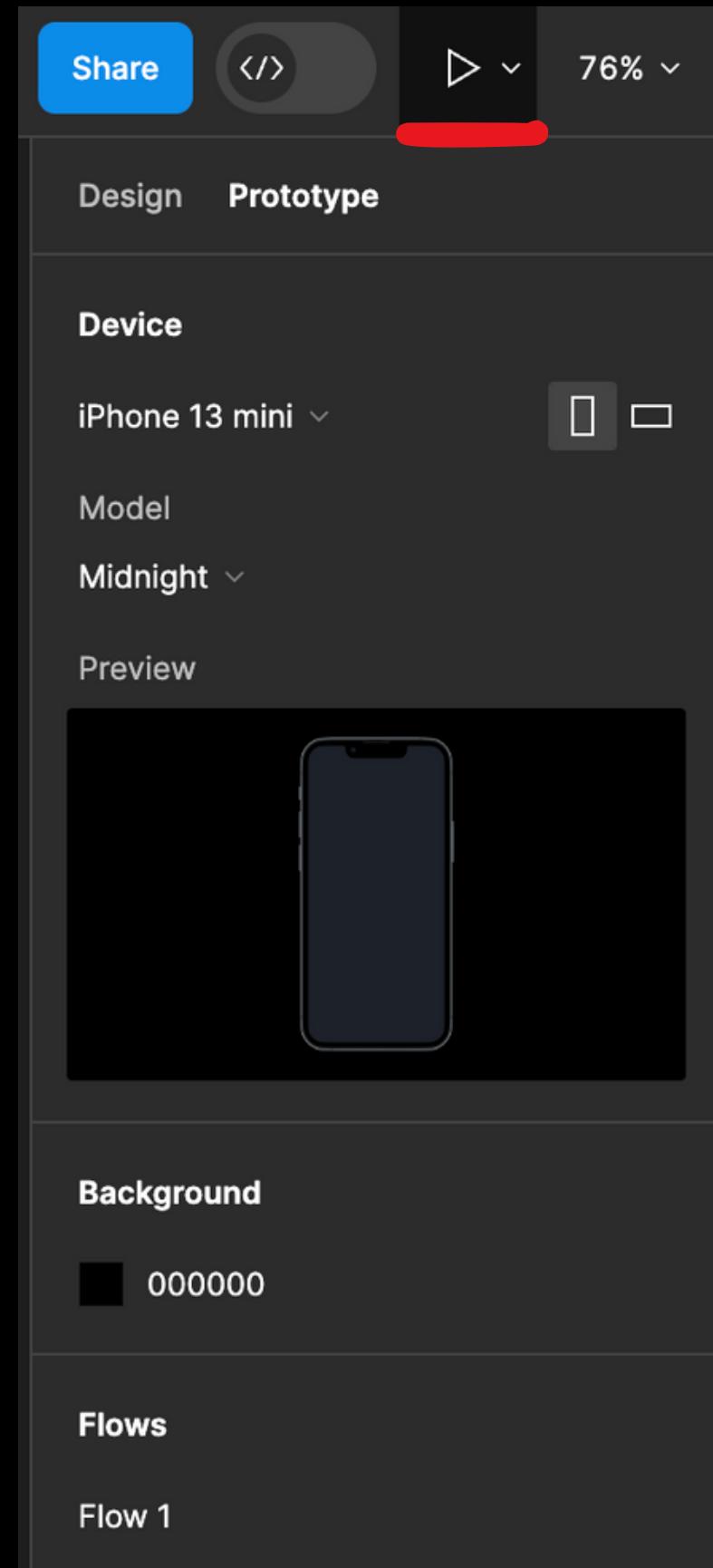
# Prototyping



# Prototyping

Prototyping links your static designs together to simulate a working final product. To start prototyping, select the prototype option in the attribute panel on the right.

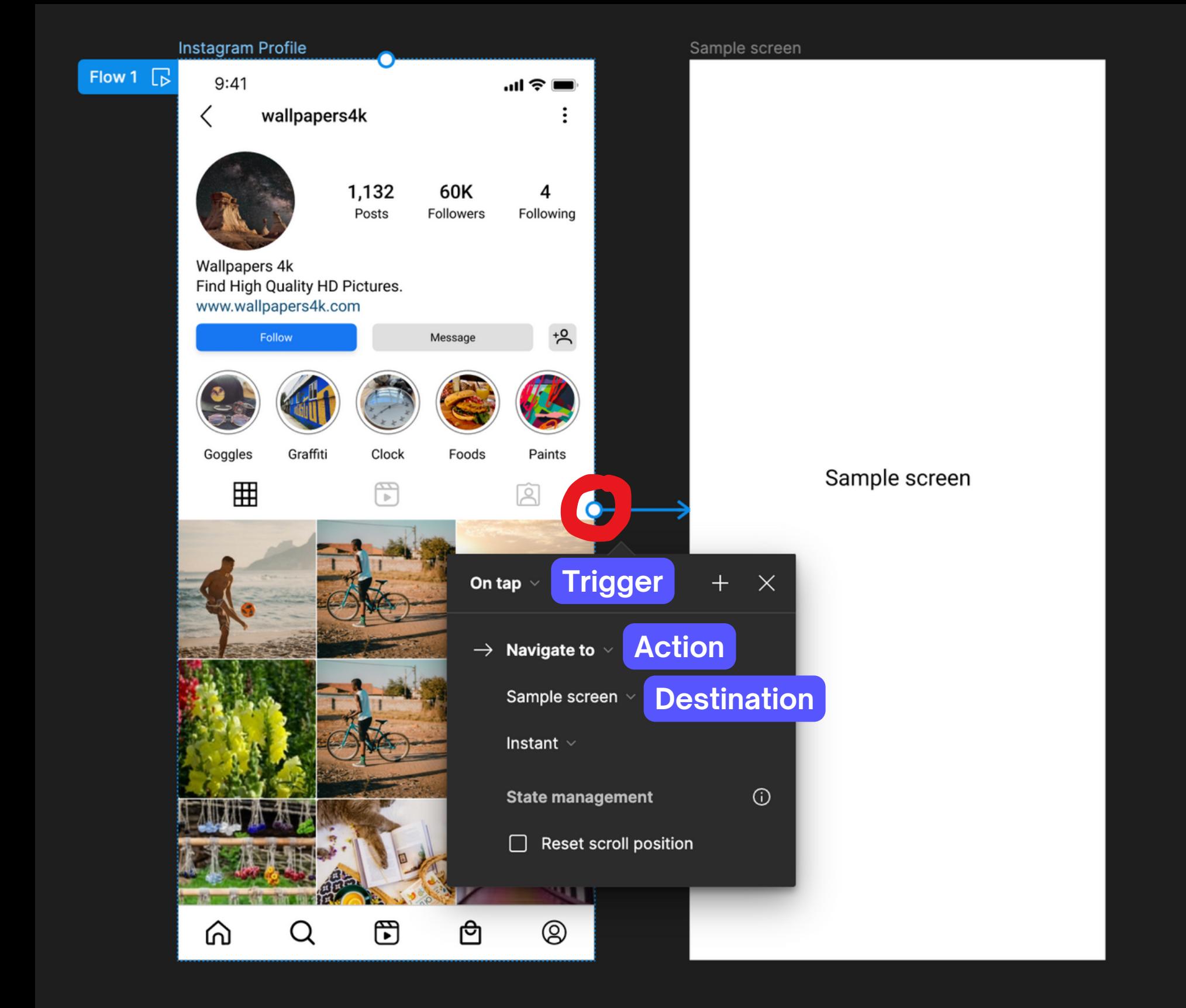
The device should be the same as your frame size, else change it to match it with your designs. To preview your designs, click on the Play icon at the top right of your workspace.



# Interactions

Select your starting screen and hover over the middle of one of the screen's edges where a plus icon would appear.

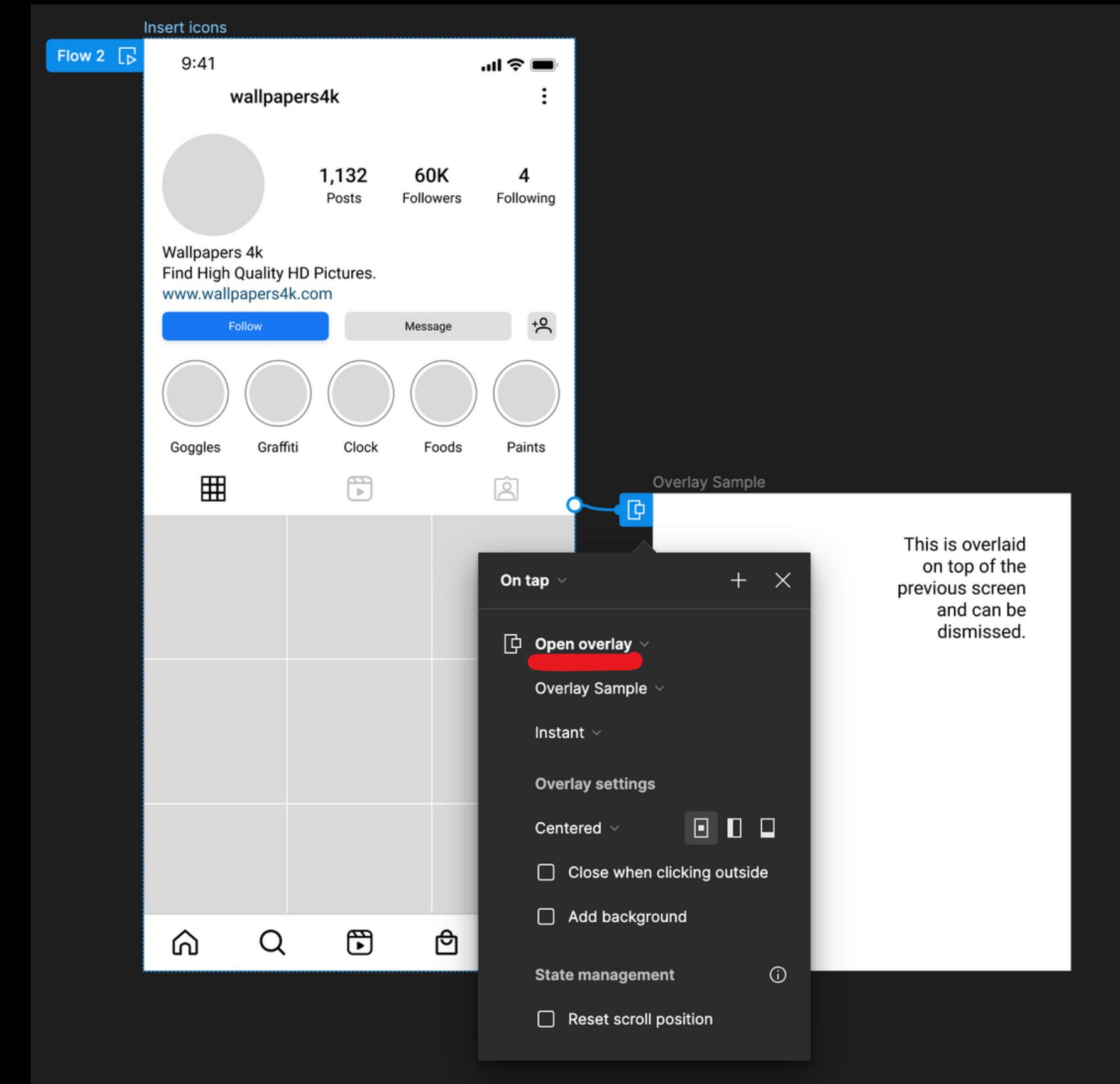
Click on the plus icon and drag to the destination screen. This will create an Interaction between them and open up a modal for customization.



# Overlays

To create an overlay, you can change the action of an interaction to be *Open Overlay*.

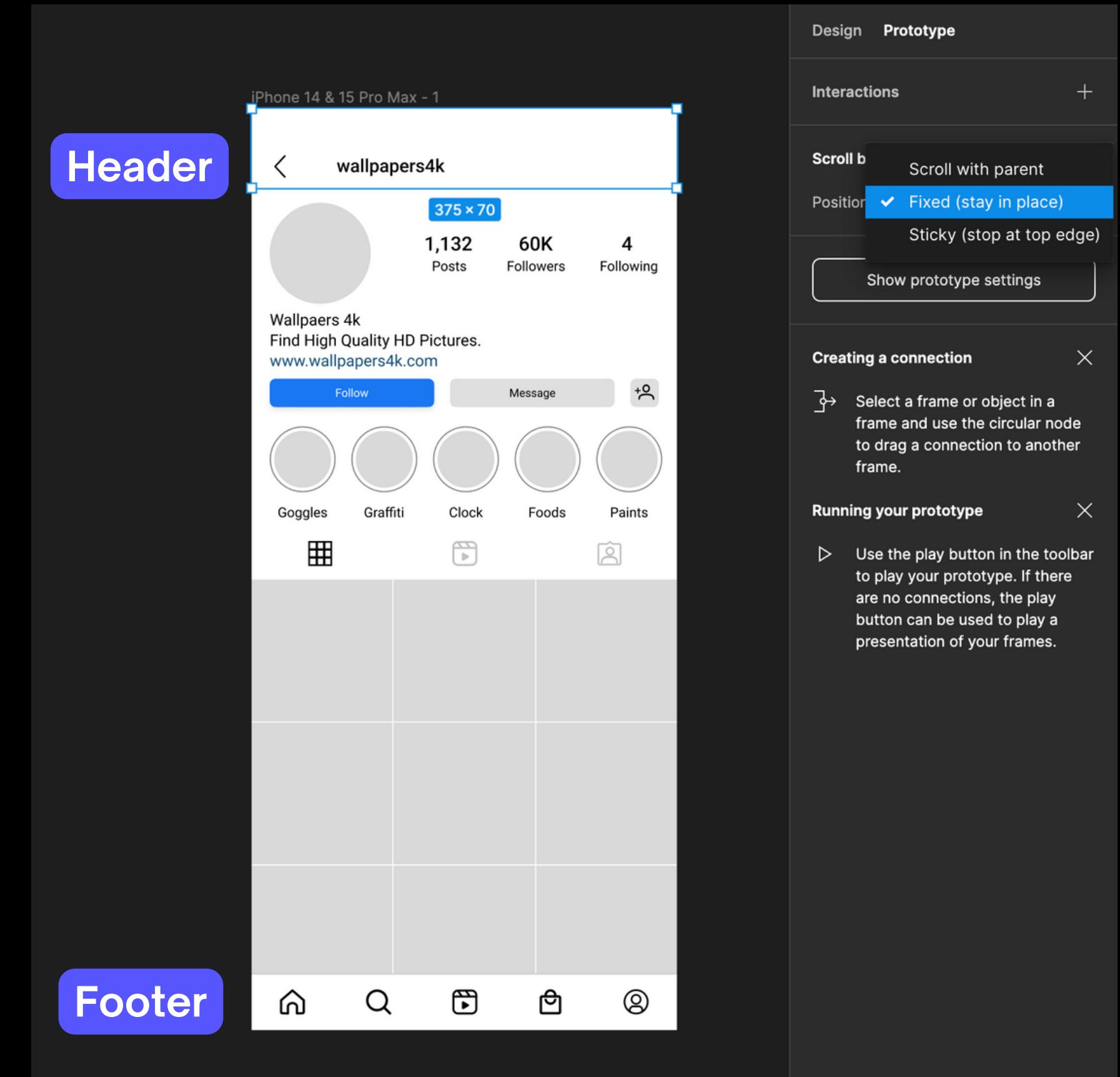
This will provide its own settings modal and can be used for screens such as dialog boxes, bottom sheets, sidebars and more.



# Scrolling

To make your frame scrollable, fix the elements that you do not want to be moved when scrolling.

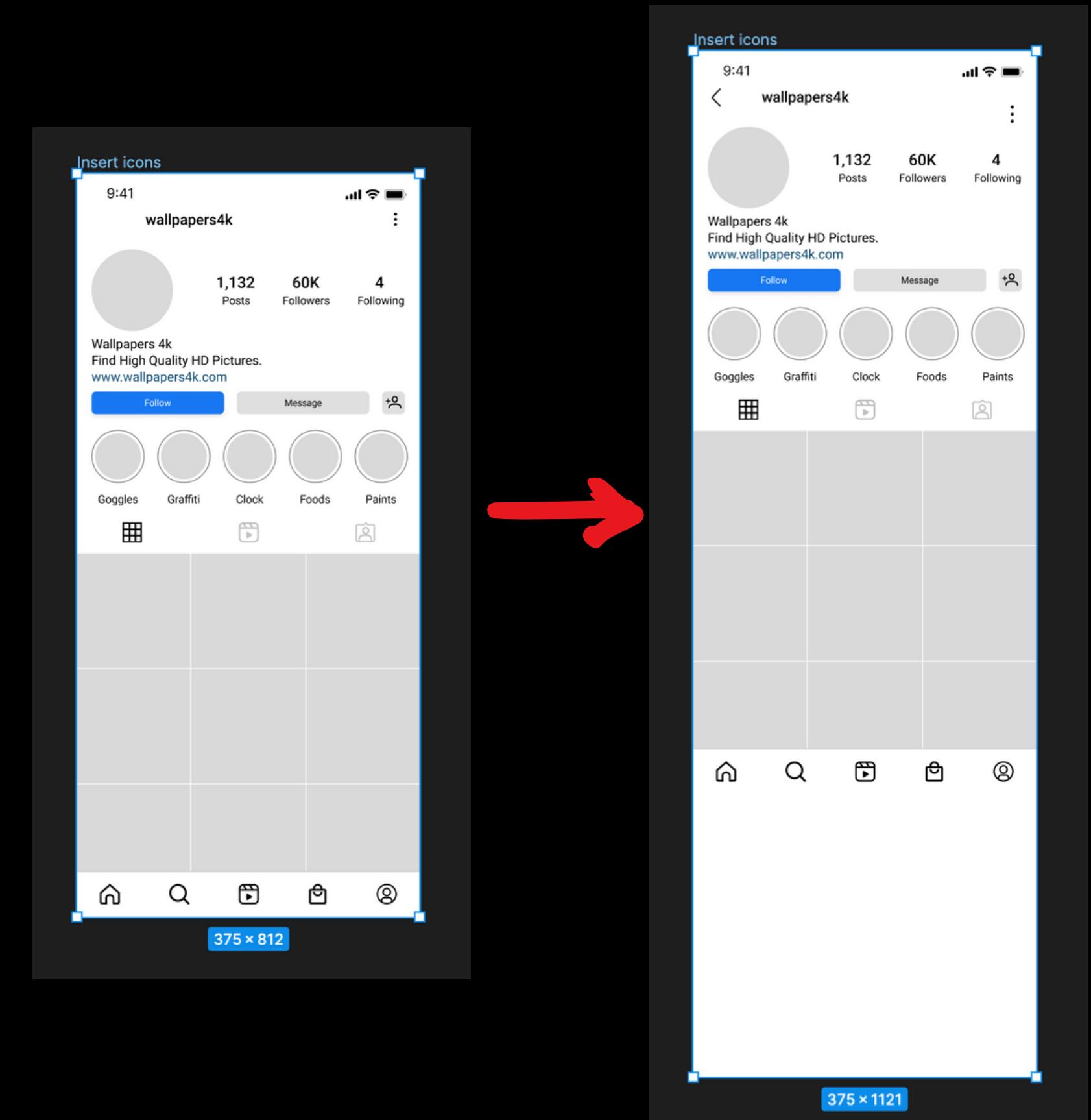
In our example, fix the header and footer layers by selecting the ‘Fixed’ behavior under Prototype > Scroll behavior.



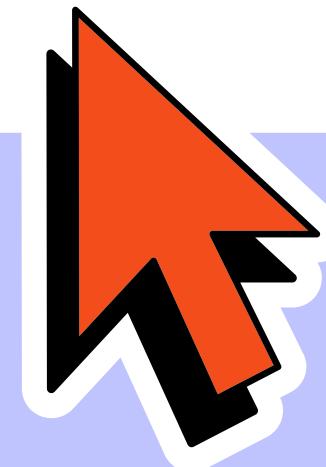
# Scrolling

Next, extend the frame for scrolling by selecting the frame and dragging it downwards.

Click on the preview button to try scrolling your prototype.



# Tips for Speed

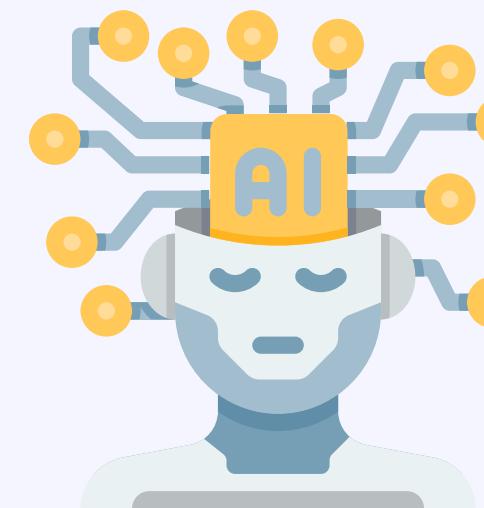


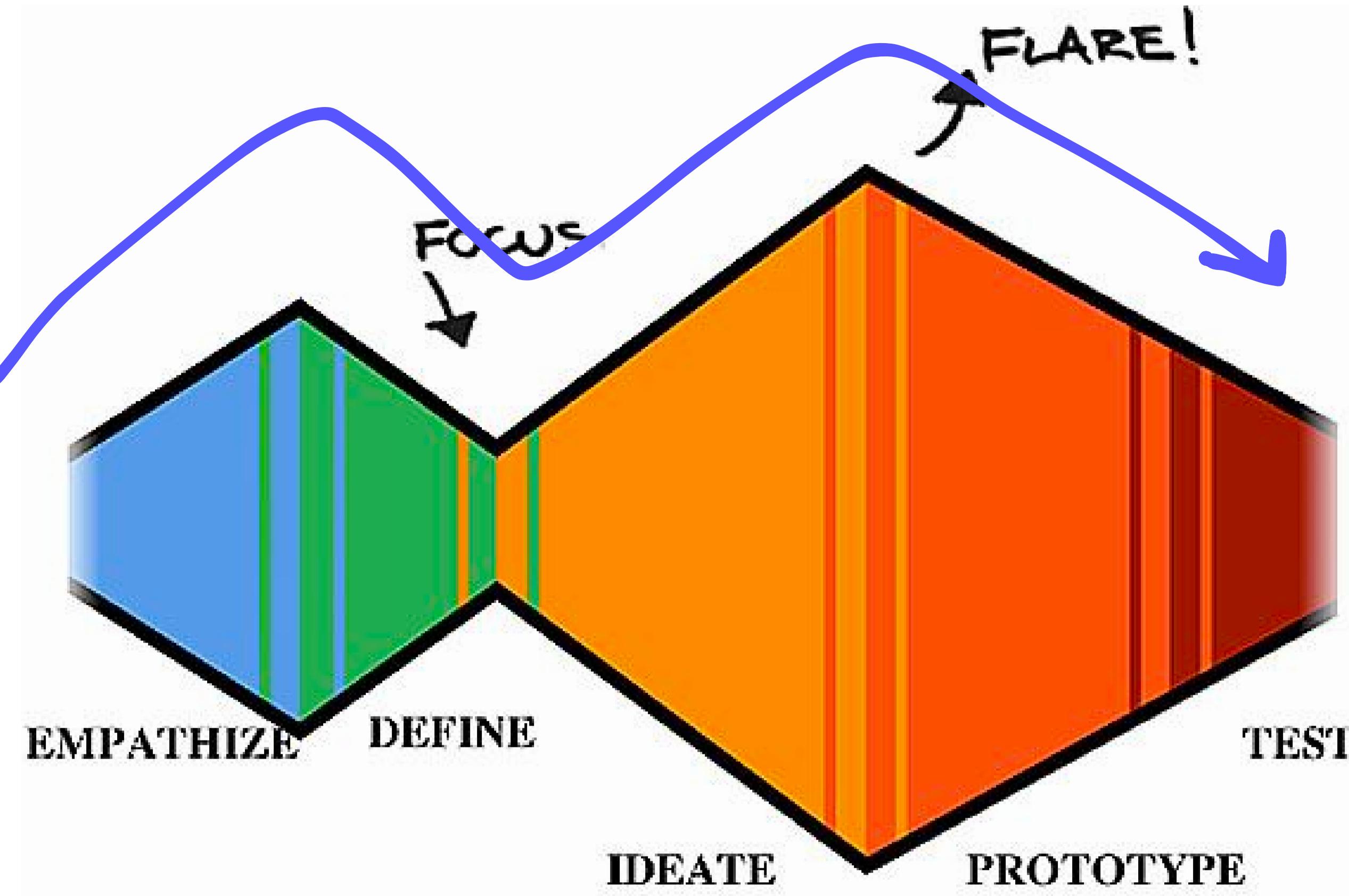
# What next?

Music player app

From concept to design

MUCH FASTER





# How?

- AI plugins
- Productivity plugins
- Community resources

# AI Plugins

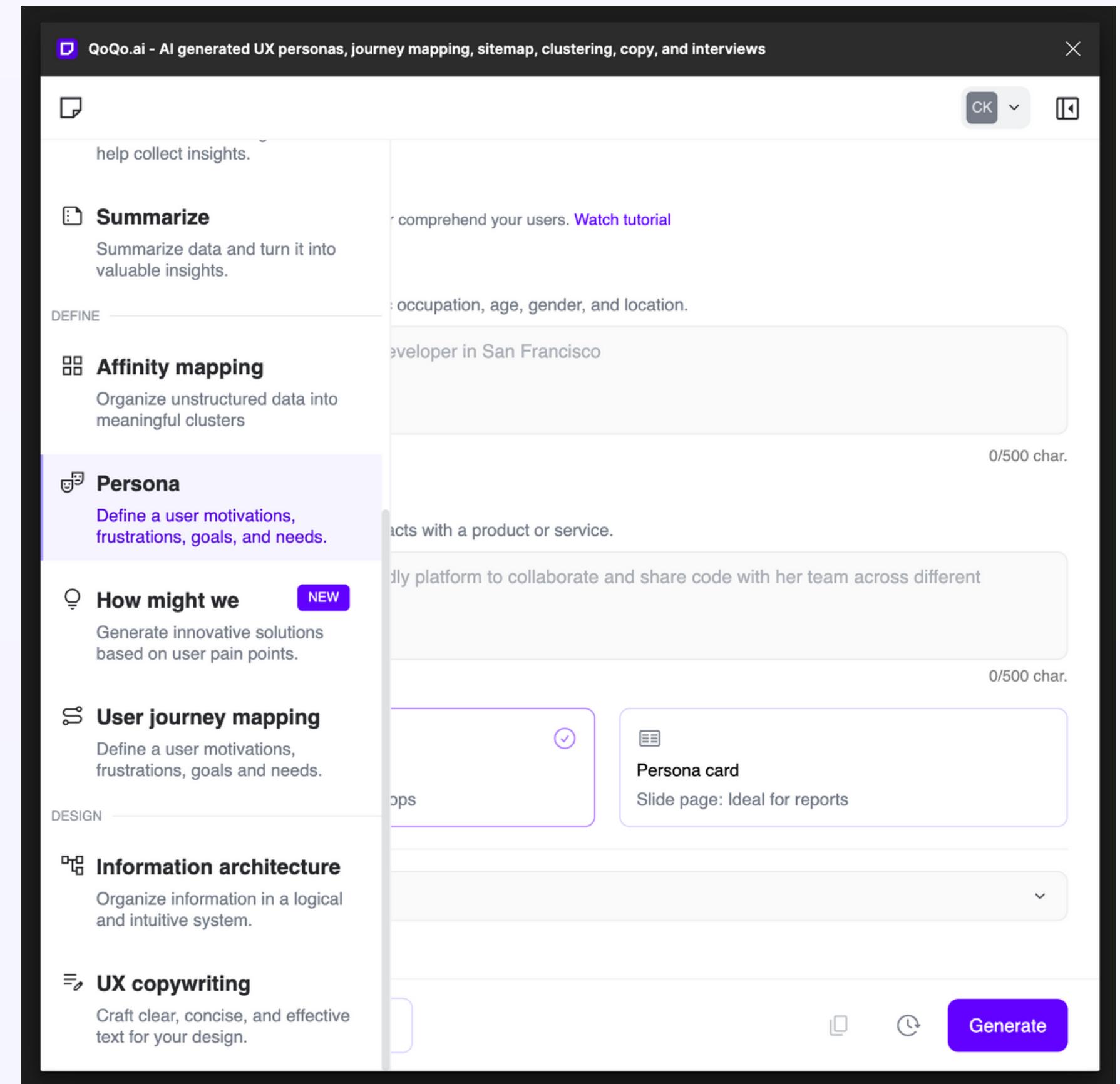
01

## QoQo.ai

Generate user personas,  
user journeys, sitemaps,  
interviews, affinity diagrams

### QoQo.ai Figma Plugin

\*QoQo.ai provides a 2-day free trial and then \$7/month



# User Interview Questions: Understand your user well

QoQo.ai - AI generated UX personas, journey mapping, sitemap, clustering, copy, and interviews

User interview

Quickly generate relevant questions based on your research objectives.

**Persona demographics \***  
Characteristics, such as specific occupation, age, gender, and location.

22 year old computer science student, female, based in Singapore, loves to listen to music while studying

Try example 105/500 char.

**Scenario**  
Why and how the persona interacts with a product or service.

Music player app lets the persona discover music to listen to while studying. She can play music, view more details about the music artist, find lyrics and discover similar music

178/500 char.

**Topic 1 \***  
What are the user's frustrations currently when listening to music while studying and how could we improve it?

**Topic 2**  
e.g. Gamification

Generate



User Interview

22 year old computer science student, female, based in Singapore, loves to listen to music while studying user interview discussion guide

Thanks for accepting and taking the time to meet with us today. I'm {name and position}. I'm from [company name]. We are conducting this interview to understand our customers better.

A couple of points before we get started. For one, in today's conversation, we will be asking questions about your experience and the goal is to learn about your thoughts and your ideas. There are no right or wrong answers, just answer as openly and honestly as you can. The interview will take about [Enter duration]mins. All information will be kept confidential and not attributed at the individual level.

Lastly, before we get started, we do like to record these sessions. These recordings are for internal use only and will not be shared outside of the project team. So if it's ok with you I'll press record and we can get started.

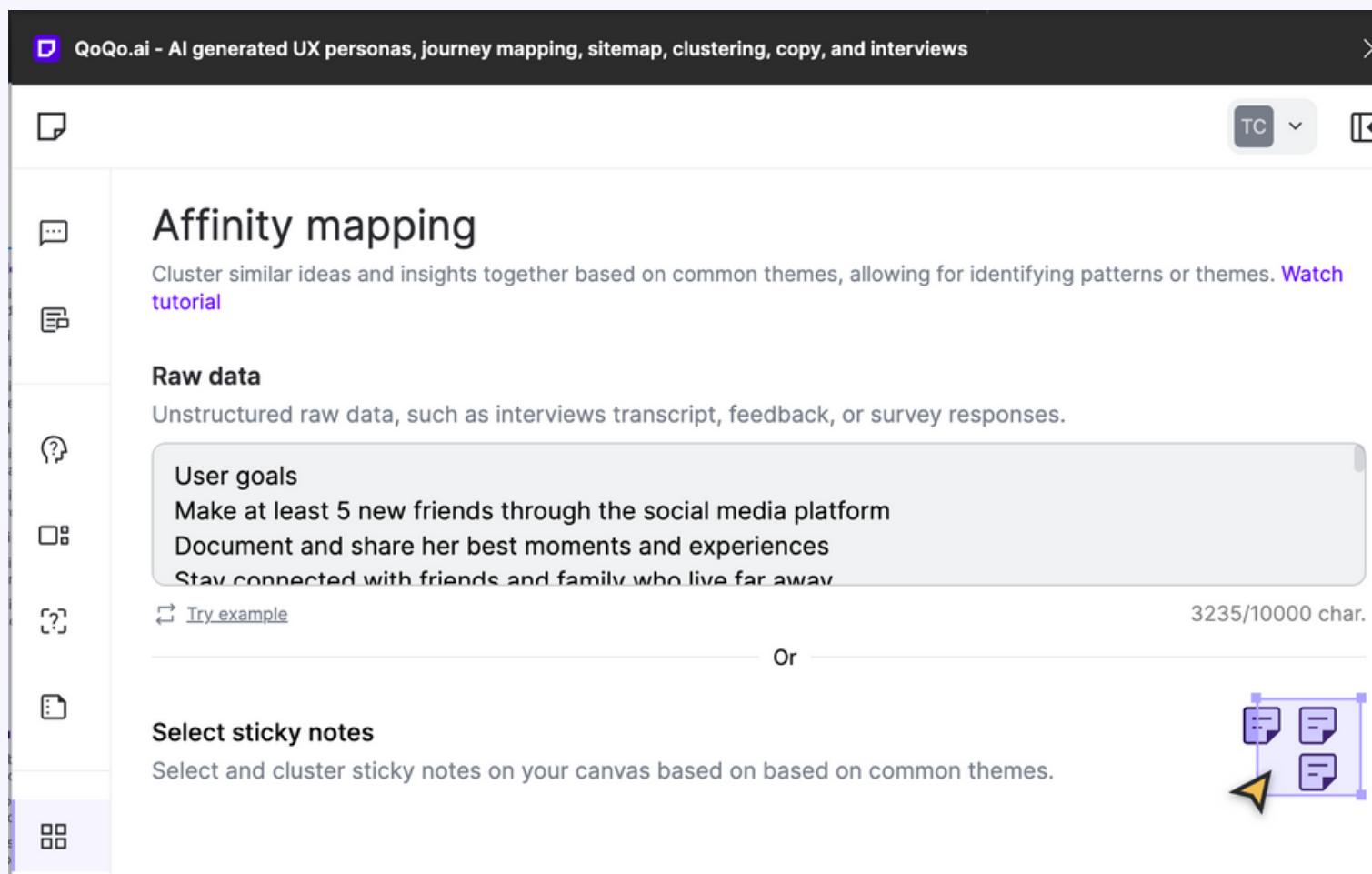
User's frustrations when listening to music while studying questions:

1. Can you describe your current experience when listening to music while studying?
2. What are the challenges you face when trying to find music to listen to while studying?
3. How do you feel when you can't find the right music to listen to while studying?
4. What are the distractions you encounter when listening to music while studying?
5. Can you tell me about any specific frustrations you have when using a music player app while studying?

Improvements to the music player app for studying questions:

1. What features do you think would enhance your experience of listening to music while studying?
2. How important is it for you to be able to view more details about the music artist while studying?

# Affinity Diagrams: Analyze raw user data

 QoQo.ai - AI generated UX personas, journey mapping, sitemap, clustering, copy, and interviews

**Affinity mapping**

Cluster similar ideas and insights together based on common themes, allowing for identifying patterns or themes. [Watch tutorial](#)

**Raw data**

Unstructured raw data, such as interviews transcript, feedback, or survey responses.

**User goals**

Make at least 5 new friends through the social media platform  
Document and share her best moments and experiences  
Stay connected with friends and family who live far away

3235/10000 char.

Or

**Select sticky notes**

Select and cluster sticky notes on your canvas based on common themes.



# Personas: Empathize with your target user

QoQo.ai - AI generated UX personas, journey mapping, sitemap, clustering, copy, and interviews

## User persona

Create a starting persona, to better comprehend your users. [Watch tutorial](#)

### Persona demographics \*

Characteristics, such as specific occupation, age, gender, and location.

22 year old computer science student, female, based in Singapore, loves to listen to music while studying

105/500 char.

### Scenario

Why and how the persona interacts with a product or service.

Music player app lets the persona discover music to listen to while studying. She can play music, view more details about the music artist, find lyrics and discover similar music

178/500 char.

### Persona board

Sticky notes: Ideal for workshops

### Persona card

Slide page: Ideal for reports

Output language · English

Chat with this persona

Generate

Person

## User Persona

### Emily Tan

Computer Science Student

Music player app lets the persona discover music to listen to while studying. She can play music, view more details about the music artist, find lyrics and discover...

#### User goals

- To find new music that she enjoys listening to while studying
- To discover new artists and expand her music library
- To have a music player app that is easy to use and navigate
- To create personalized playlists for different moods and study sessions
- To receive recommendations for new music based on her preferences
- To find lyrics to the songs she listens to
- To download music for offline listening
- To have high-quality audio for an immersive music experience
- To sync her music across multiple devices
- To have an ad-free music listening experience

#### Needs

- A stable and reliable music player app that doesn't crash frequently
- A wide variety of music genres to choose from
- An intuitive and user-friendly interface for easy navigation
- The ability to create personalized playlists
- Recommendations for new music based on her preferences
- Access to lyrics for the songs she listens to
- The option to download music for offline listening
- High-quality audio for an immersive music experience
- Syncing music across multiple devices
- An ad-free music listening experience

#### Motivations

- She wants to find new music to keep her studying sessions interesting
- She enjoys discovering new artists and expanding her music library
- She wants a music player app that is easy to use and navigate
- She wants to create personalized playlists for different moods and study sessions
- She wants a music player app that recommends new music based on her preferences
- She wants to be able to find lyrics to the songs she listens to
- She wants a music player app that allows her to download music for offline listening
- She wants high-quality audio to enhance her music listening experience
- She wants a music player app that can sync her music across multiple devices
- She wants an ad-free music listening experience

#### Frustrations

- The music player app frequently crashes and interrupts her studying sessions
- The app doesn't have a wide variety of music genres to choose from
- The app's user interface is confusing and difficult to navigate
- The app doesn't have a feature to create personalized playlists
- The app doesn't have a feature to recommend

#### Tasks

- Search for new music based on her preferred genres
- Explore the details and background of music artists
- Create and manage personalized playlists
- Discover new music recommendations
- Find and view lyrics for songs
- Download music for offline listening

#### Opportunities

- Integrate with popular music streaming platforms to offer a wider range of music
- Collaborate with music blogs or websites to provide curated playlists and recommendations
- Partner with music artists to offer exclusive content or behind-the-scenes access
- Implement a social sharing feature to allow users to share their favorite music with friends
- Offer a premium subscription option for an ad-

**and much more....**

# AI Plugins

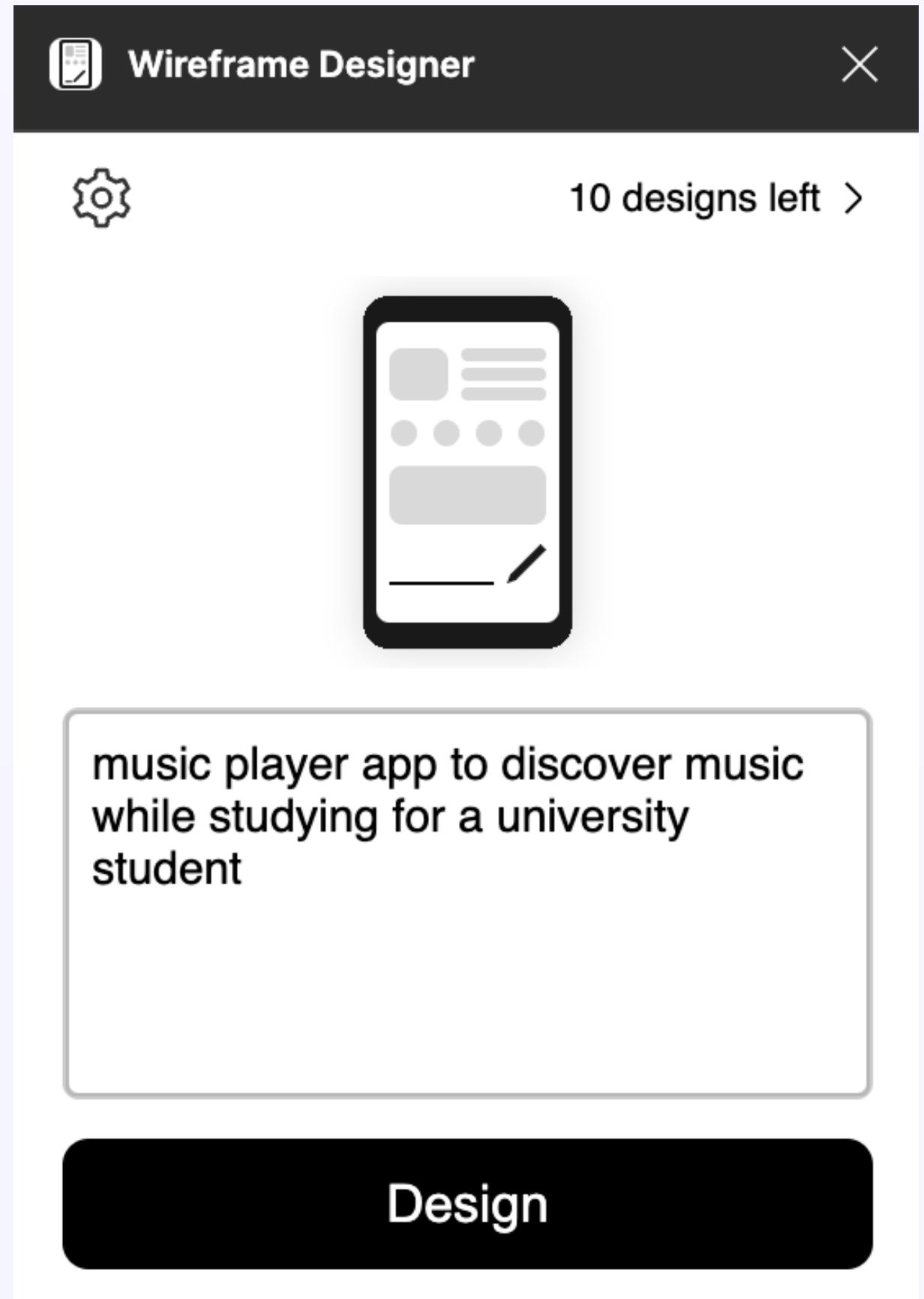
02

## Wireframe Designer

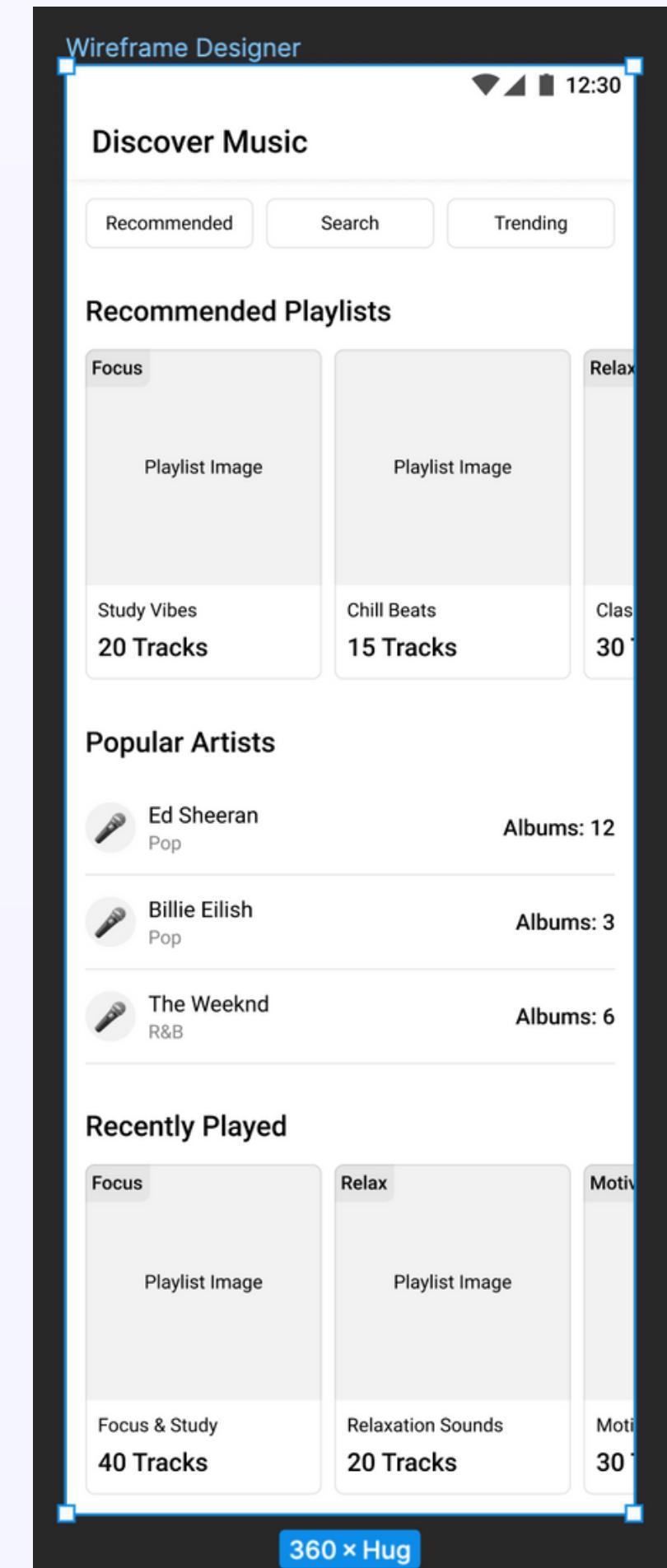
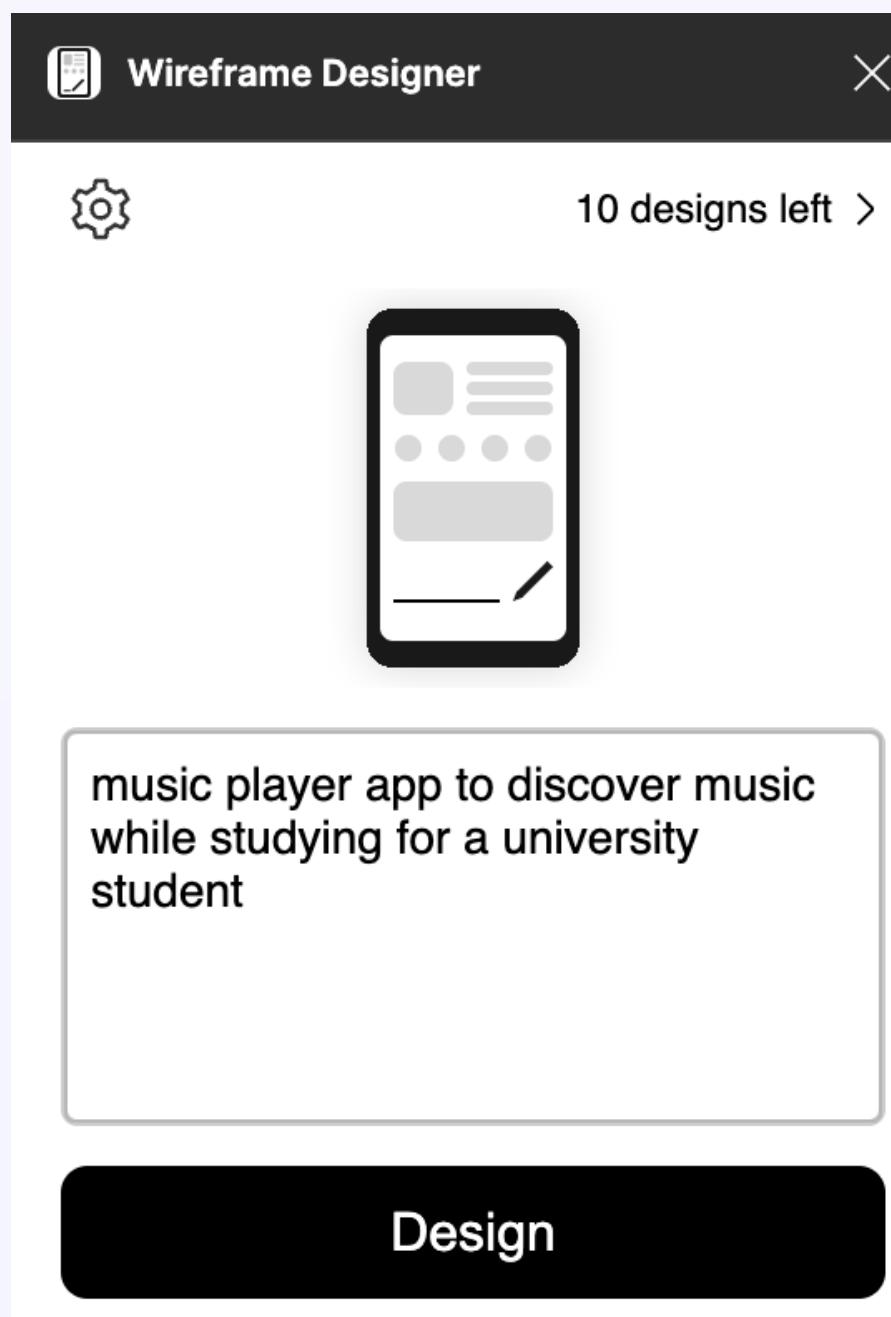
Generate wireframes from prompts

[Wireframe Designer Figma Plugin](#)

\*Wireframe Designer provides 10 free prompts and then \$5/month



# Wireframes: Generate lo-fidelity designs



# AI Plugins

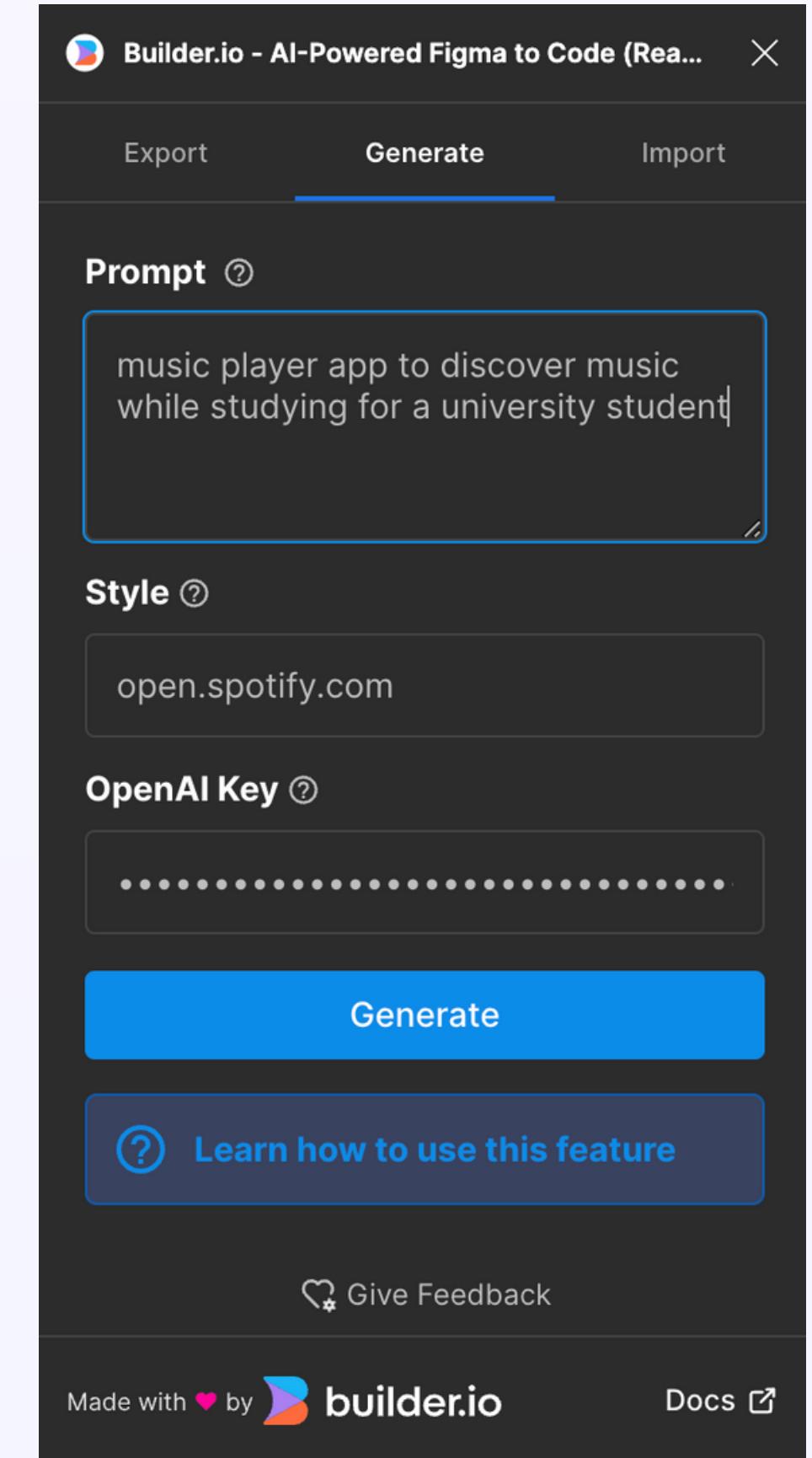
03

## Builder.io

Generate designs, convert websites into Figma and generate code

[Builder.io Figma Plugin](#)

\*Builder.io Generate requires an OpenAI API key and uses GPT-4



# Designs: Generate medium-fidelity designs

Builder.io - AI-Powered Figma to Code (React, Vue, Tailwind, & more)

Export

**Prompt** ⓘ  
music player app to discover music while studying for a university student

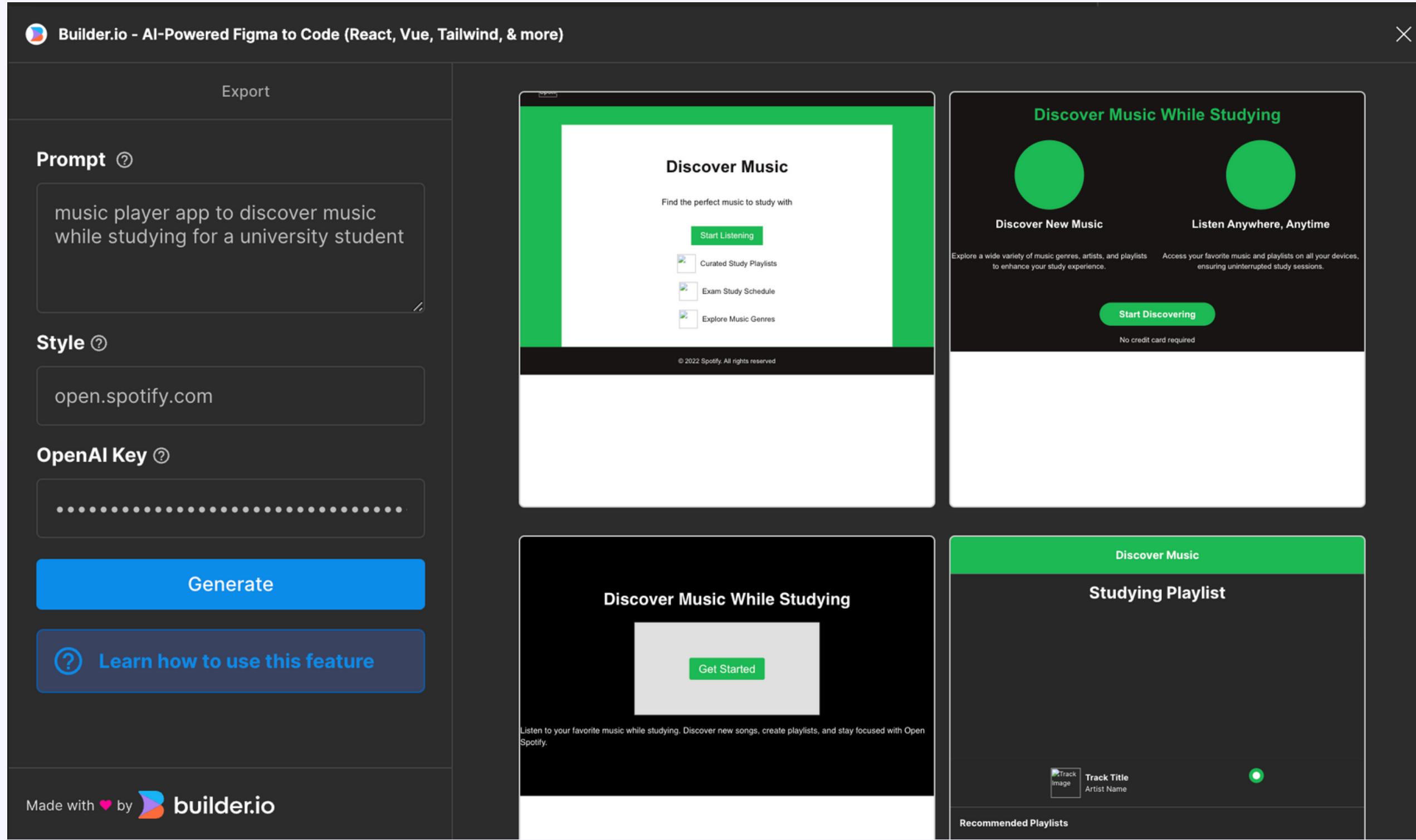
**Style** ⓘ  
open.spotify.com

**OpenAI Key** ⓘ  
.....

**Generate**

**?** Learn how to use this feature

Made with ❤ by  builder.io



The image displays four medium-fidelity designs generated by Builder.io for a music player app. The top-left design is a mobile application interface titled "Discover Music" with a green header and a white body containing a "Start Listening" button and three menu items: "Curated Study Playlists", "Exam Study Schedule", and "Explore Music Genres". The top-right design is a desktop application titled "Discover Music While Studying" with a black header and a white body featuring two large green circles, "Discover New Music" and "Listen Anywhere, Anytime", and descriptive text about exploring music genres and enhancing study sessions. The bottom-left design is a mobile application titled "Discover Music While Studying" with a black header and a white body containing a "Get Started" button and a brief description of listening to music while studying. The bottom-right design is a desktop application titled "Discover Music" with a black header and a white body showing a track image, track title, artist name, and a "Recommended Playlists" section.

# Designs: Import Websites into Figma

Builder.io Import



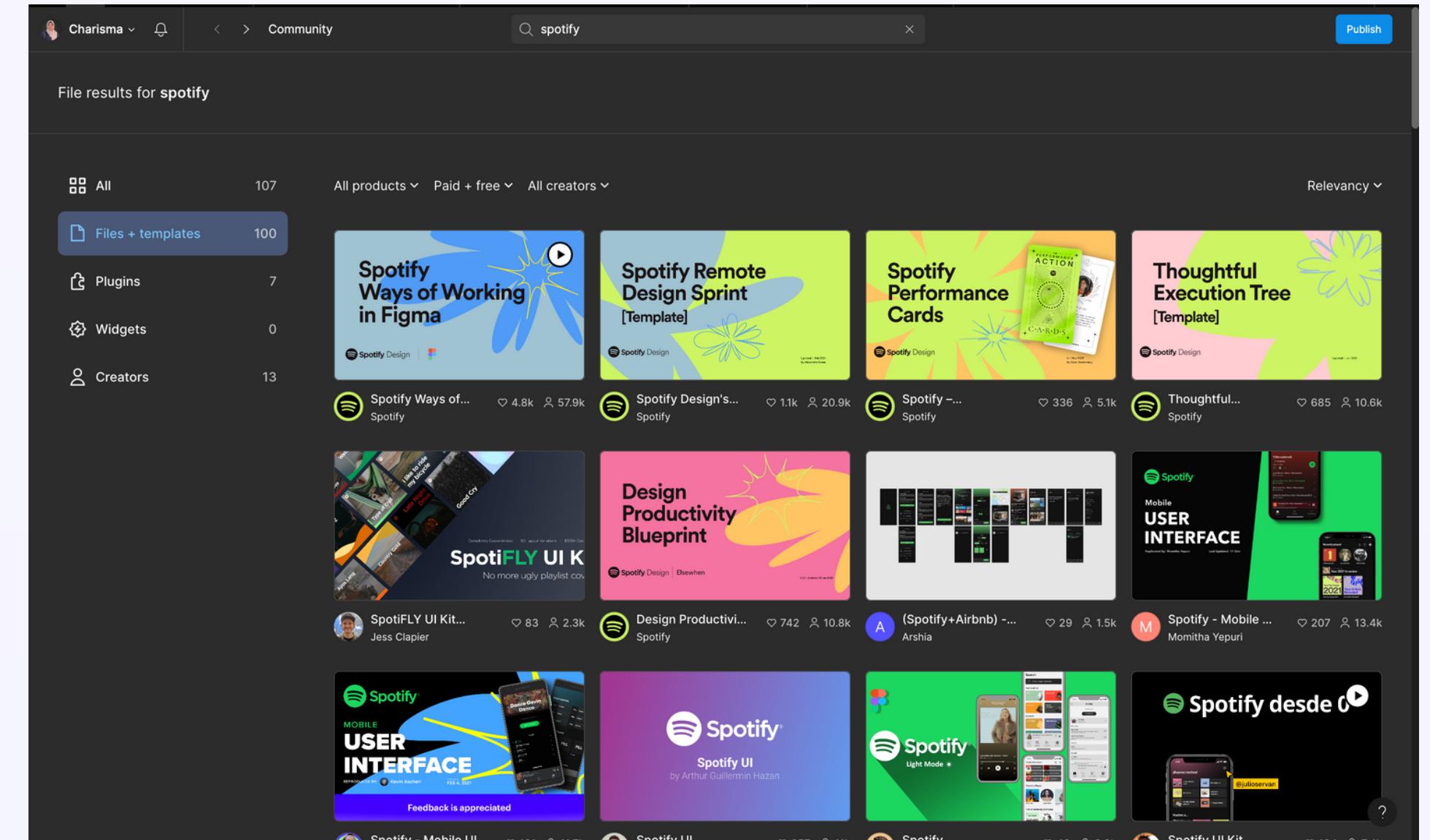
The screenshot shows the Spotify mobile application's home screen. At the top, there's a search bar and navigation buttons. Below it, a banner says "Good evening". A row of cards includes "Liked Songs", "Lofi Girl - beats to relax/study to", "YouTube shorts football 2023]", and "Ultimate Pop Gaming". Underneath, a section titled "Your top mixes" displays five cards: "Chill Mix" (Warren Saada, Peaceful Melody, J.Wexx and...), "Chillzy Mix" (J.Wexx, Lazarus best for us and Tétouan), "Billie Eilish Mix" (David Kushner, Alec Benjamin and Arctic...), "Upbeat Mix" (David Guetta, The Weeknd, Avicii and...), and "Pop Mix" (Ed Sheeran, Shawn Mendes, Billie Eilish and...). Further down, sections for "Made For Charisma" and "Beats" are visible, along with a playback bar at the bottom.

The screenshot shows the Builder.io Import interface, which is a dark-themed copy of the Spotify home screen. It features a "Good evening" banner, a row of cards for liked songs and playlists, and a "Your top mixes" section with five cards. The cards are styled with solid colors (red, blue, green, grey, purple) instead of images. Below this, there are sections for "Made For Charisma" and "Beats", and a playback bar at the bottom. The overall layout is identical to the original Spotify interface but with a different color palette.

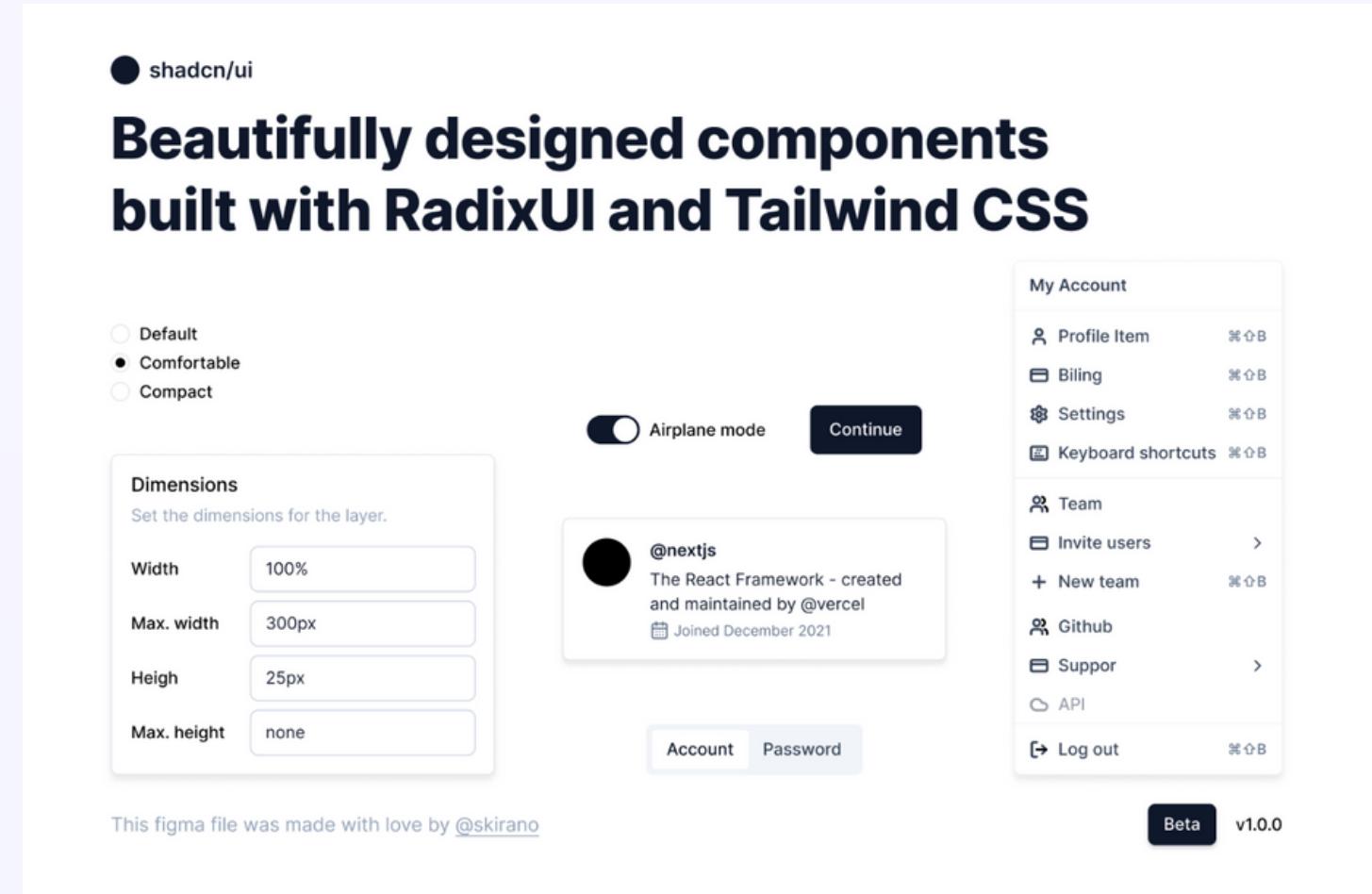
# Figma Community

Search for whatever you want like:  
templates, plugins, and widgets in  
**the Figma Community** to get  
started with your project quickly.

[https://www.figma.com/community\\_](https://www.figma.com/community_)



# UI Libraries



01

Untitled UI v2.0

03

Material 3  
Design Kit

02

Apple Design  
Resources iOS 17

04

@shadcn/ui -  
Design System

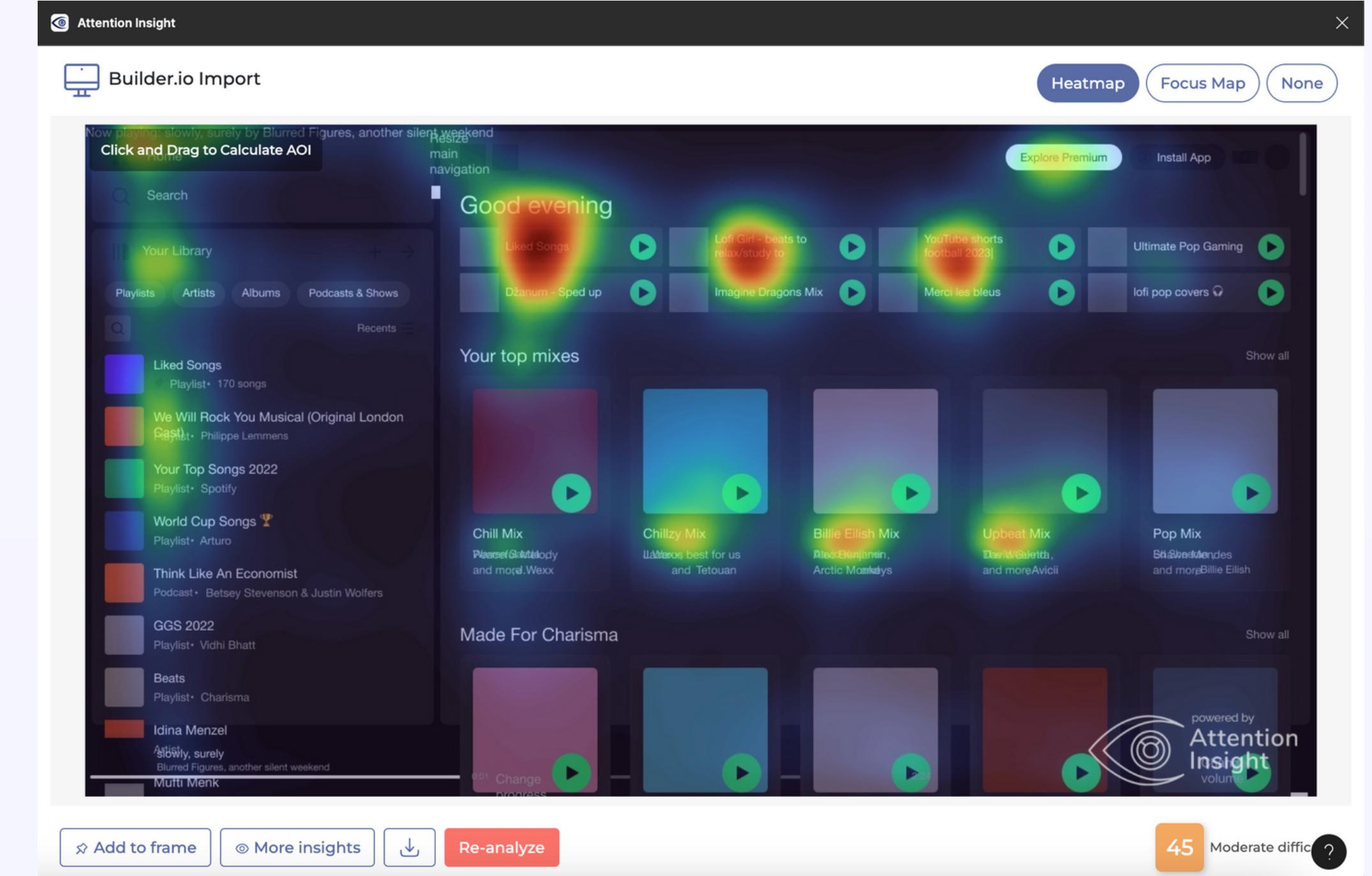
# AI Plugins

04

## Attention Insight

Predicts where users will look and engage with your design using AI.

[Attention Insight Figma Plugin](#)



\*In addition to Iconfiy, the plugin to find all open-source icons

# More Plugins

01

## Figma to Code

Converts Figma designs into CSS, Tailwind, SwiftUI or Flutter code

[Figma to Code Figma Plugin](#)

02

## Autoflow

Automatically draw connectors between frames

[Autoflow Figma Plugin](#)

03

## Unsplash

Insert stock images into your designs

[Unsplash Figma Plugin](#)

# Official Guides

Find more guides at: <https://www.figma.com/best-practices/>

They cover important (complex) topics for bigger design projects:

01

## Shared libraries

To keep a consistent design across a large project, especially in larger teams

02

## Layout grids

Design for multiple screen sizes at once.

03

## Components architecture

Use components more efficiently.

# This Project

## Instagram Profile Clone & Spotify Design Process

<https://www.figma.com/file/rVQMAmSU3dfN1bn6hI227A/Instagram-Clone?type=design&node-id=0%3A1&mode=design&t=DeyQXPyxevy9Uqq6-1>

**Happy  
designing!**

