

## **Human Computer Interaction (In English)**

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### **Prototyping with Figma**

Hello everyone, I'm Vibhuti Malhotra and today we'll be learning about prototyping tools such as Figma. So let's get into it. So we'll be learning two things today, what is prototyping and how can we actually use Figma to prototype our designs. What is prototyping? So basically, if you have an idea, you want to make an app, you want to make a website, you need to visualize those ideas in front of you so that you know that, oh, now I have to do this. So if you open an app, say Instagram, you see there's a login page, then there's an explore feed, you have a messages page, you also have a home feed. So all these pages, you need to visualize them before, you need to make prototypes of the designs that you want in them, and then these designs can be made in Figma.

So what is prototyping? It is a creation of interactive models or representations of a product or system. It also acts as tangible or visual or functional representations of your final design. And it helps identify problems to the designers that can come up far later when you actually release your product or when you go in further stages of enabling those ideas. What is the purpose of prototyping in design? Firstly, it validates and refines your design concepts.

So it basically helps in two main phases, usability and user friendliness. It actually helps you assess how usable your design is, how a user can actually use it for their own needs and demands. And if it has a correct logic to it, a structure to it, Prototypes reveal user interactions and functionality. It also minimizes the risk of costly design errors through real-world user testing. Third, it helps you in efficient feedback and collaboration.

So you can share these prototypes on Figma or any other tool that you're using. You can share these with your team members, they can collaborate, they can comment on it, they can tell you that you can change this thing in this page, this thing in this page. And it basically helps you brainstorm at a different level. Guide to Prototyping in Figma So prototypes are a fantastic way to actually do all these stuff that I'm gonna list now. Preview interaction and user flows.

So the example that I took before about Instagram and how it has different pages and a

flow to it. So if you wanna open someone's ID, you go to the search feed and you search in there. But if you just wanna just look at your feed and find new people, new content and everything, you just go to specific posts in your search feed. So all the structure that it has, that if you click this button, you'll go to this page, this button, this page, all the structure that it has, you make that structure, you come up with that structure when you're prototyping for your design. You also share and iterate on ideas, you brainstorm, you collect ideas from different people, you take their comments, feedback, test interaction with users.

If you have a prototype, you can actually share it with your friends or people who you might think will be your target audience at a later stage and ask them for their feedback. They can help you think of a page or of a design that might be more useful for them. and present your ideas to stakeholders. So let's get into it. We'll be talking about some basic tools that we can use on Figma to make prototypes.

And the first one is flows and starting points. So when you have an app, like let's take an example that we took before as well. You open an app, right? You have the first page that is login page or you might have a page says the logo, it has the logo of your basic website or your design and it has a punchline as well and image, okay? So that might be your starting point. That might be the first interface that the user will see when he or she opens your app or website or blog, whatever it is. So that will be known as your starting point in Figma.

And you can actually take a frame and choose it as your starting point. We'll be discussing this in the demo that we'll have later on Figma, how to practically make a frame as your starting point. Second point is creating connections. Okay, so taking the example that we had before, you have different pages, right? You have login page, you have home feed, you have search page, you have messages page. So these will have different kind of buttons, right? If you click on one button, messages, messages button that you have, it will take you to the messages page and show you different chats and everything.

How do you make that connection between that button and that page, right? Maybe you have one screen and you have five different buttons on it. So these five different buttons will take you to five different pages. How do you make that connection again? Okay, so it's a very basic step in Figma. There's this sign that you can see, the plus one. You can choose, you can hover around your object that you want to create connection between and it will show you that symbol.

You click on it, you drag that button, it will show you an arrow and you take that arrow

to the frame that you want to connect that button with. Okay, we'll see it practically later on. Third point is creating interactions and animations. Okay, so we have all made PowerPoint slides, right? So maybe slide one and slide two might have different kinds of animations, right? Like move in, drag in, zoom in, zoom out, gradient, fade, right? So these animations, we can also put it into our Figma designs. So if you click on some button and it takes you to a specific page, right? the motion between the button and the different page might have a kind of animation to it.

How do you add this? You can use Figma to do it as well. So to do it, basically you go to the prototype tab and add interactions or apply any animation that you want to. Fourth is adjust prototype settings. So there are different kind of users, they have different kind of phones, they have different kind of laptops, right? So Figma actually helps you choose the kind of device that you want to make your prototype for. Like different models of iPhone, different models of laptop like Mac, Windows, iPhone 15, 16, iPhone 11, 10, everything.

Okay, so fifth point is sharing prototypes. So whatever prototype that you're working on, you can share it with your other team members or friends or family that you might know that can help you design it in a better way or give some feedback, something that you can apply to your design and make it better. So you can just click on the share button or copy a link to share it with someone else. And the sixth point that we're talking about is comment on prototypes.

Okay. So you have a design, you are making a prototype and you want to share it with your team members and they want to comment upon it that this button maybe can be changed to a different color. This can have a different contrast to it. This can have a different font size, anything. So Figma also gives you a feature where other people can add just comments to specific things that they might think can be changed. or anything that they want to tell to their other team members.

It helps you collect feedback, resolve comments, and incorporate advice all in one place. So getting into it, the secret to better prototypes, it's a quote, so I'm just going to repeat it. Effective communication between all your project stakeholders is the best way to identify areas for improvement and find problems designers might otherwise miss. And we can also call this brainstorming because you have a team and everyone is putting in their ideas and that actually essentially means that there is effective communication between everyone.

Okay. So Figma also helps designers or programmers both to brainstorm and iterate in real time, might I add, with collaborative cloud-based tools and won't lag when multiple

users work simultaneously. So the next point is making a prototype with AI. So with Figma AI, you can create prototyping interactions between your designs in a few clicks. It can help you give an overall idea how one of your templates can be, and how different pages can look, how you can use these fonts or this and this color to make it visually better.

So what Figma AI can help you with essentially is like the frames on the canvas you want to create interactions between and open the prototype tab in the right sidebar and this is the button that you can use to actually use Figma AI and it shows make prototype as well and it will help you come up with better ideas. Okay, so prototype for any screen size. As we also saw earlier that you can choose any screen size that you want. As I told you earlier that there are different phone models or laptop models that it already has. You can also make these prototypes custom size.

You don't need to select a specific device that you want to make your prototype for. You can just choose the size of the frame on your own, whichever suits you and your design. Okay, so not only Figma, but there are other tools as well, prototyping tools that can help you design or prototype your ideas. So first of all, first is proto.io, and it has an intuitive user interface that works with dragging and dropping elements.

Again, it is a no-code tool. It's useful for marketers, product managers, and UX designers. So four of the most important points that proto.io covers is interactive prototyping that again, Figma also covered. It helps you to basically create high fidelity interactive prototypes for apps, website, whatever your product needs.

And then easy to use interface. So it is a basic drag and drop, whatever you need to just drag it to your screen and drop it there. And it helps you build a prototype on its own. Third is collaboration and feedback. Again, Figma also had this feature so you can share the link to your design to other team members and they can provide a feedback, comment on it and give their opinion right for this cross device testing so prototypes can be tested across different devices so as I told you earlier Figma also had different kind of options for devices that you want to see your prototype on and the same goes with proto.

io The next tool is Framer. So it helps you to wire up screens and frames. You can create responsive layouts and realistic prototypes. And you'll see that the four main important points that Framer might cover are the points that already Proto.io or Figma has covered.

So one thing is interactive design. Second is no-code editing again. So it provides a no-code interface making it accessible to both programmers, non-programmers, designers, everyone. And then real-time collaboration, you can share your feedback, you

can add comments to it, you can edit it, multiple people can work on the same design at the same time. The fourth point that Framer covers is responsive prototyping. So Framer supports responsive designs and enabling prototypes to adapt to different screen sizes and devices that again we covered before.

And the next is Webflow. So Webflow has integrated from Figma and it allows designers to easily export Figma designs into Webflow. So basically whatever Figma template that you've already made or that you want to copy from Figma's resources, you can do it using Webflow as well. So first point that it covers is visual design tools, create custom websites using a drag and drop interface at proto.

io, also covered. Then responsive design, easily you can make design websites and it can work across all kinds of screens, different iPhone, different phone screens or laptop screens. Then it has a CMS integration, so basically it manages dynamic content with Webflow's built-in CMS. And hosting and publishing can help you to secure your data, your ideas, your designs, and easily site publish it. These are the references that you can take help from if you want to know more about Figma or prototyping. And now we actually practically learn to make a template on Figma.

So yeah, let's get into it. Okay. So this is the Figma interface. When you search in Figma, this is what you might see. And we click on new design file. We'll just take a basic white template.

Okay. So the first basic thing that you need to do is choose a frame, select a frame. These are the tools that we were talking about, different tools, and this is the frame tool. so on the right hand side you can actually see that there are different devices that you can select from so the type of frame that you want you can just uh select from here let's just take um iphone 14 right okay so this is the frame that you have for iphone 14 plus one um So you might want to add different color to it. You can do it from on the right side.

It has a fill option. So just drag and drop the kind of color that you might want to see. Let's just go with something blue. Okay, cool. now how to add different shapes to it so this is the tool that you can see shape tools that i'm highlighting right now you can choose different shapes from it rectangle line arrow ellipse polygon star etc etc let's just choose a basic rectangle okay and you just draw over here maybe like this cool okay so let's just add a different kind of color to it maybe something contrasting or light okay um okay this is the basic thing that we have right now now let's just think what kind of template that we want to come up with let's say um we want to make a social media app okay um let's just say that on our first page we want um a login page like put in your password put in your username and a forgot password button okay and okay so also we can add images

here so if we go to the shape tools and if we click on the images part you can just select some image that you have probably maybe downloaded before and just put it here okay next thing that we can do is okay let's just choose a text box this is the text box you can just select the dimensions for it or change it afterwards let's just go with the basic name Instagram okay select it and you can change the font of it whatever one that you want to select let's go with something okay this and then let's change the font size as well select it and then go to 36 and then choose your font let's go with this right let's just make it bigger because i can't see it yeah and you can just select this and then you want to change the dimensions you want to place it differently okay yeah let's just keep it here for now On the left side, you can see all the layers to your screen. I just have one frame right now that is iPhone 14 plus and then I have two tools in it.

The text tool that I've used and the rectangle that I've used till now. Now let's make different kind of buttons to it. So the first button that I want would be a login button, login or sign up. so let's just go to a different type of a shape that we want here let's go with simply a rectangle you choose a rectangle here okay and then you just duplicate it copy and then you just paste here yeah okay let's just make it a bit smaller and then place it in between this is also smaller place it between so we can add different colors to it now um maybe let's just go with white simply white because we already have too many colors here okay this is the transparency tool if you want to make it more transparent or opaque yeah then let's go with the white color here and let's go with the white color here as well yeah now let's just add some text to it uh login and sign up text is text comes here login and sign up let's just reduce its font size because it's too much right now login and then you have another text box here that says sign up let's change the positioning of both of these text boxes okay so make it into make it come into the center yeah and let's make this into the center as well yeah okay okay so till now we have made a frame which just gives us a a text box that says Instagram and we have two shapes that say login and sign up now to actually convert these into buttons we need to make connections for these two buttons to different pages right so now we'll take two more frames login and sign up and then we'll connect these buttons to those frames okay let's make another frame here and we'll choose the same type of device that we chose earlier iphone 14 plus right okay yeah Let's just choose the same color theme so that it's not different.

Let's take one rectangle. Okay, so we have selected our second frame. Now we'll just copy the design that we had here to here. We can actually just duplicate this. Okay, let's take one more rectangle, right? We can just copy it from here and then just paste here. yeah and then we can also copy this text box from here okay copy and then we can just paste it here we can position it the same way that we did the earlier one okay so now basically let's just change the name of this frame to login page for our keys yeah now If you want this button to go to this page when we click on login, we can go to prototype

and then this button appears the plus sign, right? Just take this and drag it to this page.

You can see the arrow that's going to the different frame. Okay. now so trigger is basically okay if you uh tap this uh login button login rectangle do you want key do you want uh it to go to the second frame when you tap or when you drag or while you while you hover over it so we'll just go simple we'll choose tab and the destination is the login page right and animation as i told you earlier you can just choose any kind of animation that you want we'll just go with move in for now okay yeah great now for sign up button we'll just copy this frame that we had right now the login page we'll turn it into the sign up page and we can navigate the sign up button there as well okay so let's just copy and then paste it over here right we can change the name to sign up page Okay. Now we'll choose the sign up rectangle.

We'll go to prototyping. We'll hover around it and we can see that there's this plus sign that appears. Choose this and you can see that there's an arrow that we can go and take it to the sign up page, right? We'll choose the animation as move in and the trigger as on point again, on tap again.

Yeah. Okay. So... Let's add more text to both of these frames because right now they're all the same to me. Let's just choose the text page. We'll add this here. Login. So two things that you need for login is username and password.

We'll just add that here. Okay. We'll change the font later on. right let's just reduce the font to something like 40 okay and then we just copy this and then paste it here and change this to password okay You can change the color theme because right now it's like, okay. So now I need to add two more buttons where I can actually put in my username or my password. You can again choose any kind of shape that you want to.

Basically a rectangle one. Let's just take it here. okay and we'll just change the color to white also now usually buttons don't have such edgy corners we can change the corner from here so basically corner radius we have here 0 maybe let's do it 65 okay yeah so you can change see that the edginess to all the corners have actually reduced you can reduce it as per your need we can just copy this here and then paste it here yeah cool first sign up okay email address and name Okay, we can just copy all of this. Yeah, and we'll just change the text box text to email address. And then, okay, email address and name. And then copy it and paste it here. Maybe we should change the font color right now because it's not really visible.

We'll just go ahead and choose the color as something maybe more dark, right? So let's just go with black and then we can just copy it and paste here. Right? What will be your

username? And then let's just go with the sign in button right now. Let's choose a rectangle again and draw it over here. Um, and let's just write some text to it like sign in and maybe let's change its alignment from here from on the right side yeah and let's just change the color of the rectangle because it's too dull right now we'll go with white yeah oh okay Great, let's just reduce its edginess again from corner radius.

Let's do it 65 again. And here we can use a login button. We'll just copy this button, paste it here. And okay. okay so maybe when you choose sign in or when you choose login we go to the same page that is the home page right so let's just make our final frame that is that will be our home page again let's just paste this frame okay so the login page we'll just copy it and then paste okay and this will be our home page let's just change its alignment a little bit because or it will be very similar you can actually add a panel here we'll again choose a different kind of a shape for it a rectangle and then just drag it over here we'll do the color as white again and then we'll add different icons here so basically you can actually go online and search for Figma free icons and you'll find a set of icons that you can just copy paste to your template okay you can just download an icon an image of an icon from online and just use it here copy and paste it download and paste it so I've actually downloaded a back icon here so I'll just copy the image and I'll just put it over here like a back icon yeah okay so if you want when i click on this icon if you want me to go back to the login page i can just do that i can add a prototype to it like a connection to it so i'll just click over here and i'll take that take it back to um the login page right yeah And then the login page name can be changed to homepage. Okay, and even here you can add different icons or home icon, whichever you want to add and make different connections for it. For now, let's just try to run it once if it's working correctly or not.

Okay, so I've run it now and it shows the first page that we had Instagram login or sign up. Now if I click on login, it will take me to the login page and I can log in or if I actually click on the sign up page, it will take me to sign up and I can sign in, right? Now if I log in and just the last thing that I need to do is connect my login page to the home page right. So this login button that we have we need to prototype it to our home page.

Yeah. This is done. Now when we run this we can log in. We can log in, click on the login button, and this is the homepage that we have. Again, the back icon page, if I click on it, it will take me back to the login page. So this is our basic idea of how Miro works and how you can make prototypes using it. This is it from my side. Thank you, everyone.