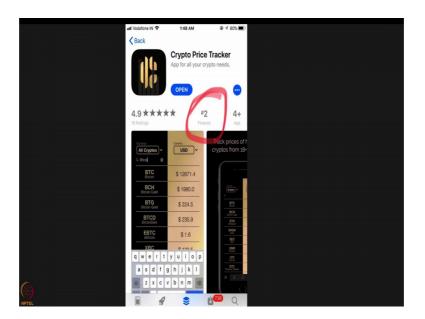
## Introduction to Human Computer Interaction Prof. Harshita Arora Department of Computer Science and Engineering Indian Institute of Technology, Madras

## Lecture – 23 Crypto Price Tracker App

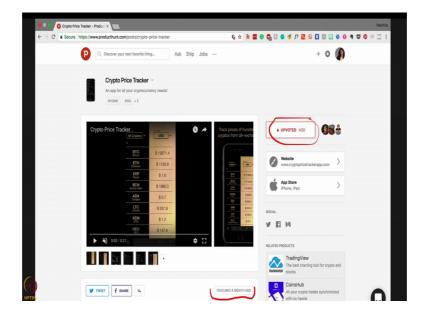
Hi I am Harshita. I am a 16 year old app developer, designer and entrepreneur. I created an app called Crypto Price Tracker which is a crypto currency price tracker and portfolio management app. I launched the app on the app store on 28 January of this year and within 24 hours of launch, the app was number 2 in finance on the app store top charts.

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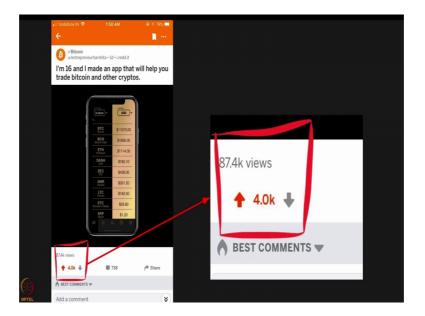


It was featured on product hunt, was viral on reddit.

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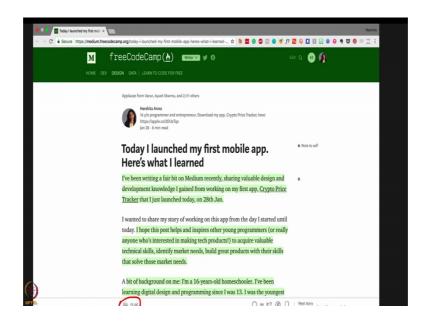


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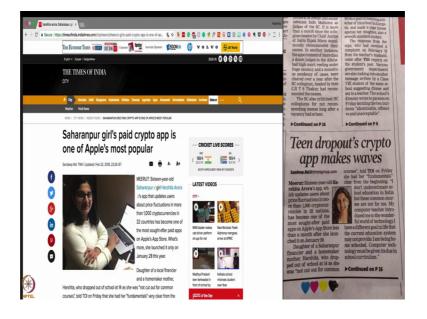
And my story about building the app got very popular on media.

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I was then interviewed.

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By Times of India and dozens of other media news outlet us like the Daily Beast Inc, Your story, Bitcoin news, etcetera. About 2 weeks ago, the app got acquired by redwood city ventures which is a (Refer Time: 01:01) firm silicon valley. In this video, I am going to share the step by step design process that I took on when designing the Crypto Price Tracker app.

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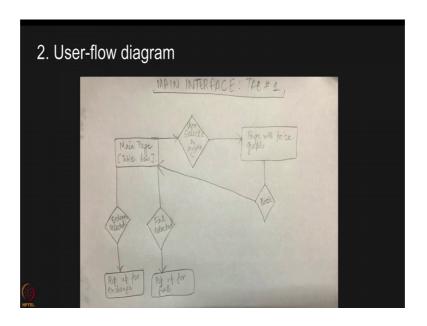
## Design process 1. User research and interviews. 2. Create a user-flow diagram for each screen. 3. Create/draw wireframes. 4. Choose design patterns and colour palettes. 5. Create mock-ups. 6. Create an animated app prototype and ask people to test it and provide feedback. 7. Give final touches to the mock-ups to have the final screens all ready to begin coding.

The design process in 7 steps is simple. 1, you do use it, you get started with user research and create a product spec that has details about all the features that you have decided to build in the product. Number 2 is creating a user flow diagram for each screen. Number 3 is drawing via frames for each of the screens. Next is choosing a color palette and design patterns for each screen. Next is creating mock ups, then creating an animator app prototype and asking people to test it and provide feedback and finally, the last step is to give touches or final touches to the mock ups to have the screens all ready for importing in the I D E for coding he app. I am now going to tell you in much more detail what each step includes.

Starting with user research, the first step when building a new product is always to figure out what features your users want. This will require researching the market and talking target audience, ask people what they wish was better about existing products if you are building an improved solution to a problem that has been solved by other products. If you are innovating something new, ask people what they want in an app like app idea like yours for them to use it every day which is to find it useful enough. Once you have your list of ideas, put them in a document and that will be your products back. When I started out with Crypto Price Tracker app idea, all I had in my head was that I wanted to make an app that crypto investors and just people interested in crypto currencies would love and it fulfills their needs.

So, I interviewed almost 30 people in my network who I knew were into crypto currencies and asked what they wish was better about other crypto price tracker and portfolio management apps. At the end of one week of interviewing, I came up with a huge features list which is a really good sign because it means that people badly wanted a new app for this (Refer Time: 03:13). After the interviews, I also researched on the internet mostly learned to ask subreddits like our bitcoin and our crypto currency, researched a little bit on (Refer Time: 03:22) etcetera. So, that is how I learned about the market before I even started doing any tangible product development. And I think it is very important to make something people want if you want your app or your product to do well.

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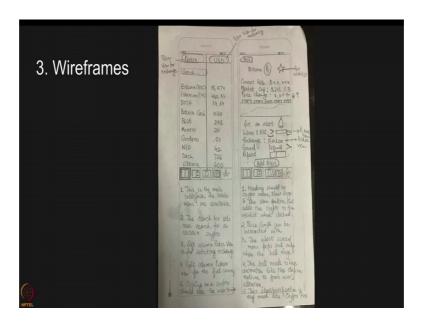


Next is creating a user flow diagram a User-flow diagram. User-flow diagram is a very high level representation of a users journey throughout your app or website. Usually a user flow diagram is made up of 3 types of shapes.

Rectangles are used to represent screens; diamonds are used to represent decisions and finally, arrows link up screens and decisions together. Decisions for example, is like tapping a log in buttons, swiping to the left, zooming in or selecting something on the screen, etcetera. User-flow diagrams are super helpful because they give a logical idea and a really good logical idea of how the app would function. And here is a user flow

diagram I drew when I started out working on the design of my app. Really basic, but it gives a good idea of what the final product would look like or one of the screens.

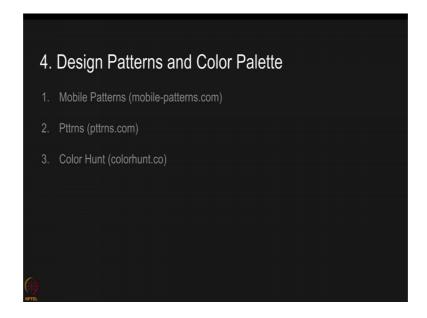
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Once I complete the User-flow diagrams for each screen and have designed user journeys, I begin working on wire framing on the screens. Wireframes are essentially low (Refer Time: 04:42) representations of how your app will look. Essentially, a sketch or an outline of where images labels buttons and you know all the stuff will go with their layout and positioning.

A rough sketch of how your app will work. I use printed templates from US stencils for drawing the wireframes. It saves times and gives a really nice canvas to draw on and make notes. Here is an example wireframe or the same screen that I showed you a user flow diagram or after sketching the wireframes you can use an app called pop by marvel and take a picture of all their drawings using the app and have a prototype by linking up all the screens through the buttons.

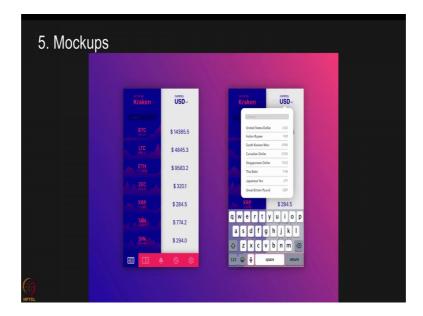
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Next, we select the design patterns. For each type of screen and choose a color palette for your entire product. This is my favorite part because it is kind of like window shopping, lots of design patterns and color palettes choose from and I and I go back picking the ones that I kind of like and I start experimenting with them.

The best platforms to find design patterns are mobile patterns and patterns. And to find good color palettes go to color hunt. Next step is creating mock ups.

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This is when we finally convert the pencil joints to pixels. This is when you finally move on to using design software. A mock up in the design sense is a high-fi representation of their design. It is almost like you went into this apple in the future and took some screenshots for (Refer Time: 06:11). It should look realistic and pretty much like the real thing. There are design software and tools for creating mock ups. I use the (Refer Time: 06:20) designer and sketch. The most commonly used for tool for IO s design is sketch, but you can also use the Adobe, CC (Refer Time: 06:31) or any other software that you're familiar with.

Here's an example of some of the early designs of my app.

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After I showed it to some friends, I experimented more with color various color palettes. I shared these initial mock ups with my friends for their feedback and the users that I had interviewed in the first step. A lot of the people seem to like the gold gradient and black scheme. So, something I learned that day be willing to take feedback and experiment with new suggestions, you will find amazing ideas come from your users when you talk to them. Now you friends (Refer Time: 07:11) or any other design community. So, when we designed the mock up and remove the background graphs because generating them on the app was a technically was going to be a technically time consuming process and the reduced readability and this is what the redesign mock up look like.

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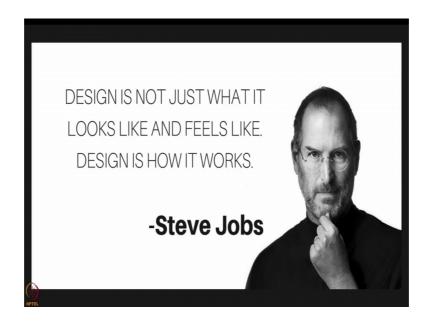
I was pretty satisfied with the color scheme icons on the tab bar and the overall layout and look and feel the app or the screen. I went ahead and designed the rest of the screens following the same design guidelines. It was a long for surely a fun process. Once all of my screens were ready, I put together a prototype and adobe x d and asked a few friends to experiment and get feedback. Creating an animator prototype by linking all the screens is your next step.

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And finally, step number 7 is final touches and such and this is what the final design of my app looks like and that is it. After all the screens were completed, where I followed the exact same design process and principles, I imported all the screens into x code and began coding the app. I am going to end this video with one of my favorite quotes about design by one of my role models Steve Jobs.

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Design is not just what it looks like and feels like design. Design is how it works.

Thank you.