Learn the Art of Designing an App in 7 Steps

How to Design an Application?

The following mobile app design steps will help you to design engaging mobile apps for your business. Apply the following steps to turn your idea into a live mobile app.

A Simple App Designing Process to Follow

1. Goal Defining

2. Specification

3. Wireframe

4. Prototype

5. Visual Design

6. Interface Animation

7. Testing

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1. Define Goals

First of all, as soon as you get a brilliant idea, you need to define its goal. And by defining we mean serious business. You have to take every little thing into the consideration. Most of the ideas get screened out by here. You could only cross this step if your idea is strong and practical.

Designing is not a one-person job, so always keeping the team on the same page is the most important thing for the best results. Hence, defining the goal of your mobile app is the first step, to begin with. And even if you are doing it all on your own, it is very easy to get off track.

Therefore, below are the big questions you should ask before taking up the project.

1.1 Why?

Why does this app need to be designed? Answers to this question can bring an entirely different purpose to your project. Knowing exactly why we are designing, creates numerous new possibilities, and also leaves less room to deviate.

Why should you take up this project? There are plenty of good ideas and also plenty of designers. Why are you the right designer for this app? Does this resemble your vision and mission? Will this project add value to your portfolio?

We know, these questions might feel less technical and more philosophical. But as long as you are not passionate about what you do, it is never going to be a good job. Thus, always try to pick up only the projects which you find appealing.

1.2 What?

What exactly is the purpose of the app? Is it for educational, sharing information, or entertainment purposes? The answer to this question should be clear and simple enough to be explained to a non-technical person. This will help not only to compass the project but also to pitch the app design to others.

1.3 How?

How are you going to make it happen? Now, to answer this question, you need to figure out finance. How much are you willing to invest? How will this project generate revenue? How is this project different from any other existing one? It is so important to figure out this practicality of the project.

Now that we are clear about the basics, here comes the **market research part.**

1.3.1 Research Your Competitors

Before moving any further, you should start researching your competitors. Check out what kind of app design they have? What functions do they provide? What aspects of the app do the users like the most? Get to know all the bugs and issues they faced or are still facing.

It will prepare you for your designing issues and will save a tremendous amount of time.

1.3.2 Research Your Niche

Knowing as simple as the age group of your audience matters a lot when you are designing.

Therefore, research on the demographics of your audience like their nationalities, economic class, and in some cases, their gender too.

Knowing all these things will help you in deciding where to innovate and where to adapt.

2. Specification

Once you are sure about the project, all the technical stuff comes into the picture.

Spec to an app is just like the blueprint to a building. Spec is a document that states the aim of the app and how it is going to achieve the goals. Its details and particulars vary from app to app. Sometimes, you may need to be as specific as you can (generally for big-scale projects) and sometimes, you can draw just an outline.

Whichever the case may be, never skip spec.

When you are designing an app for your client, the spec works as the base for estimation. Basically the contract.

Now, when we say it is a contract, it might overwhelm you. But, you do not have to worry about it much. You should write all the information about what you are planning and how you are going to execute it. The more in detail you will write, the fewer will be chances to misunderstand. You can mention both- the functional and the non-functional demands to be on the safer side.

It is only when brought up to a paper, it shows the issues like loopholes, contradictions, and weak points in the design. Hence, the best is to convey it loudly to all the parties by putting it on paper. And not only the issues but also points out the rooms for innovation.

Moreover, we recommend this highly because it is a good practice to revisit it and check the direction in which the app is headed during the designing process. If it is deviating from the original purpose (which happens a lot) you can again fine-tune the channel. Other than that, it is most useful when you are juggling multiple app designing projects simultaneously.

And the best part is, it does not demand anything special. Any basic software like MS Word can do just fine.

Thus, if you want to build an app right, get the spec right first.

3. Wireframe

If you have done the above two steps right, this would be a lot easier for you.

The wireframe is the first look at how the app interface looks like. Generally, it is done by the UX designer but ideally, every team member should be involved in this. Wireframing is creating the structure of the interface and interaction of the app.

In this step, you design every function of the app. If you want to design without any bugs, this is the basic you need to get right.

Have you seen apps with just so many options on a single page that it gets very confusing? Or, the apps in which you have no clue about where to find the thing that you are looking for? These are the cases of poor wireframe.
Thus, for the best results, learn the basics.

3.1 Design Interface of Every Function

Your app may or may not have multiple functions, but you need to make sure that you have a wireframe for every function. For example, if you are designing a messaging app, you probably design an interface for listing all the conversations, an interface for the contact list, and an interface for the message box.

3.2 Design the Interaction

One of the most important factors for a great user interface is the interaction of the app. Thus, after designing the interface, you need to design the interaction between those interfaces. Design flows like which button on which screen leads to what function.

3.3 Design the Transitions

We know how many windows we have. We also know how they interact with each other. So now it is time to design the transitions. To ace this game, you have to know your target audience very well.

For example, if the app is for kids, the transition should be robust, but if the app is being designed for elderly persons or persons with different abilities, it needs to be simple and smooth.

In the process of wireframing, one might get carried away with the blank canvas, but the key is to keep it as simple as it can be. The more intuitive it is, the better will be the overall user experience.

Thus, do not forget that the sole purpose of the wireframe is to set the flow between windows, function, and buttons. You will get another chance to think about animations, background, and colors. But right now, focus on the basics.

The wireframe gets better with the time you put in it. Cutting out extra windows, or adding a dedicated window to a function, and designing the right transitions defines the success of any app. Thus, do not rush through this step and make sure it is bulletproof once you have sealed it.

There are many wireframe software designed just for making this process quick and easy. Or, you can go with the good old classics- a pen and a paper.

This is enough for a great wireframe.

4. Prototype

Similar to designing anything from a coffee-table to a supercar, the prototype is a vital step of mobile app designing.

A prototype is an early model to test the process and the concept. Prototyping is a way of testing, developing, and enhancing the design before putting it out into the world.

A prototype is based on the spec and the wireframe that we just discussed. From now onwards, the flow of the app designing process depends on the designer. Mostly, if you are working in a team, there is no defined next step from here. After this, things go on simultaneously.

The prototype gives you the first glimpse of the app. This is the first time you can see how the app is going to feel like. It lets you work on a real-world working system than a theoretical one. This could be the basis of future models that need to be built for the project.

Moreover, considering economics, testing a prototype saves a lot of time and capital by reducing unnecessary production costs.

And one of the most practical uses of the prototype is that it can give you actual user feedback. You can modify and enhance the app using that feedback. It gives your app a guarantee of success even before the process of development.

Let's say if an architect wants to design a residential building, he/she will not just handover the design on paper to the construction company, he would make a scaled model of the design to give it a physical form and to better understand the outcome. The model is nothing but a prototype.

You might not hit the bull's eye on your first try, never mind. This is fundamentally why we built a prototype first. Go over it once again, start focusing on the specific errors and issues. You will get to a perfect design.

Now, how close do you need to get to the actual app? Depending on the requirements of the particular project, we can classify the prototypes into three major categories which are, low-fidelity prototype, medium-fidelity prototype, and high-fidelity prototype.

4.1 Low Fidelity Prototype

A low fidelity prototype is made when just the concept of the app is needed to be tested. It helps in checking the basic functions of the app.

4.2 Medium Fidelity Prototype

A medium-fidelity prototype is to check and enhance the functions, windows, and interactions.

4.3 High Fidelity Prototype

A high-fidelity prototype can be used to test the overall visual design of the app. From the fundamental function to animations, and transition between the different windows can be easily tested and enhanced. These prototypes are best for building huge apps as they have many micro functions going on.

If you are creating an app for a client, we would recommend the high fidelity prototype.

You can use any of the various prototyping tools that can make the process quick and easy for you like InVision, Adobe Experience Design, or Origami Studio, just to name a few. But we recommend you **Principle** and **Form** as these tools are great for beginners.

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5. Visual Design

Most people get confused about the prototype and the visual design. Thus, let's make it clear. The prototype is all about the function of the app and on the other hand, visual designing is all about how the mobile app looks like?

Right from mobile design patterns, colors, fonts, font sizes, background image, texture, graphics, animations, images, and everything in between are designed by the Visual designer/ User interface designer. It plays an important role in the popularity of the app. Nobody wants to use an app that does not please the eyes.

The key to excelling in this arena is to design it for the users. No matter how good the design is, if it is not intuitive and interacting, the app would not be able to touch its true potential. And here comes the market research you did. Keep the design as per the niche-requirements.

Users interact with the app only through the UI. Therefore, for the best results, an app's graphic design must have all three formats of the user interface.

5.1 Graphical User Interfaces

These are the graphics that help to digitally represent the data. For example, the information on the screen. Users interact with the images, texts, or videos that the app shows them. This is the most intuitive format of the UI.

5.2 Voice-Controlled Interfaces

Whenever the users interact with the voice, the Voice-Controlled Interface is in the play. The best example is the music apps, voice navigation apps, and smart assistance that can take voice commands.

5.3 Gesture Interfaces

The other way to interact is by gestures. For example, smartwatches show time on a flick of the wrist, smartphone camera clicks a picture when you smile, and all the virtual reality games.

These interfaces can make your app accessible to all.

Now, let's discuss what a great design should have?

5.3.1 Predictability

The user should be able to predict the function of any button or element just by looking at it. If the user wants to add an item to the cart on an e-commerce app or shopping app, the button should represent it. This is the best way to make the user spend less time understanding the app.

Additionally, the best UI designing practice is to keep the controls near the object that the user wants to control. For example, the option to buy a product should be right next to the product. This way, it is easy for the user, and at the same time, it encourages to buy the product.
Another way to enhance the predictability is by including intuitive responses such as swipe to see next and pinch to zoom.

5.3.2 Hierarchy & Readability

Hierarchy is a basic fundamental of the app design rule. Choose the right color and size for the elements respective to their importance.
The most import element gets the biggest size. And it is proved that bright colors catch our attention. So, using bright colors for things that need more attention is always a good idea.

5.3.3 High Discoverability

A great app UI design always helps the user to discover the functions and not keep them hidden. The user enjoys the app only when they can easily find what they want.

Sometimes, a button is hard to spot even if it is right there on the screen. So in those cases, try to change the color of the button or the background, relocate it, or use shadows to make it pop.

6. Interface Animation

Interface animation is one of the most crucial steps in mobile app designing. Without interface animation, the flow of the app gets difficult to understand. Take any modern-day app on your smartphone, you will find at least one interface animation, enhancing user experience.

Interface animation makes the user understand what is happening, from where did the present screen come from, and what is the hierarchy of the present screen. You can use any or all of the functions such as click effects, processing bars, bouncing lists, and hover effects to improve usability. It adds to the predictability, easy navigation, and better control of the app.

But before discussing any further, make sure to follow the platform guidelines such as for Windows, Android, or iOS. The platform for which you are designing the app has many guidelines. Following those guidelines ensures the users are already familiar with the app. Moreover, these guidelines can also provide solutions to the problems that are expected while designing such animations.

Having said that, let's look at some of the most common and proven use of Interface Animation.

6.1 Micro Animations

These are the animations used for subtle things, such as the animation of a button, pop out messages, notification bells, and page loading animations to name a few. The best example is the 'Like' button on Facebook.

6.2 Transition Animations

These are the animations that are used when the content on a window has to be changed or during the window switch.

6.3 Graphic Animations

These animations are used when an aliment has to be highlighted but not subtly. The best daily life example is the navigation arrow in any GPS app. These animations are highly used in the apps created for entertainment purposes such as games.

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It would not be wrong to say that the animations make your app lively. It not only makes the app more usable and memorable but fun to use too.

But as the saying goes, "Everything in excess is opposed to nature." Too much interface animation can make the app slow and confusing. Here we should keep in mind that simplicity is the key.

It should only be there if it serves a purpose and has a functional value to the app. Many apps use them just for making the design "cool". Users might find it unnecessary.

How does the app interact with the user is also a major factor in creating a brand image. Therefore, while utilizing the animations, you should also be consistent with the brand image and identity.

It also depends a lot on the niche of the app. If the app is for the kids, you may use bounce effects with bright colors, but for a corporate business app, this would be informal.

And, we can not emphasize more on the duration of the animation. The duration of the animation can change the game altogether. A bit fast and the user will not be able to catch it, and a bit slow can make the users wait too long. To get this right, you need to apply the try and error method.

Thus, keep in mind that it is an iterative process and you'll need to go back and forth many times to strike the perfect mobile design. Which brings us to the next step.

7. Testing

Last but not the least, testing is the final step that can not be skipped. You can not afford to launch an app without testing it.

As technology is advancing every day, the apps are expected to be refined. And thus, every little aspect of the app should be tested thoroughly before you introduce it to the open world. The more features and functionalities it has, the more complex it will be. So, even if a small error can result in the domino effect and can crash your app as well as brand reputation.

Testing an app thoroughly before deploying needs punctilious planning in advance. Right from app performance to the basic color contrast, everything needs to be looked over and rethought of.
Therefore, we will talk about an in-depth protocol that can be applied to any app. So, let's get started.

7.1 Functionality Test

This test includes the testing of every function on the app. This needs the call back of the spec we discussed in "Step 2". Every point mentioned in the spec should tally with the final product. The user should easily utilize the app and its functions.

Keep in mind the following:

- Test Installation and Launching

- Test Singing and Logging in

- Test All the Buttons and Text Box Functionality

- Test Push Notifications Rendering

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7.2 Usability Test

This test includes testing the overall usability of the app. Many times, all the functions and specs are doing their job correctly but still the app might be hard to use. For example, the login button works fine but the users are facing problems in tapping on it due to its size or location. Thus, this test eliminates those scenarios.

Keep in mind the following:

- Test Layouts & Design

- Test Intuitiveness

- Test Response Time

- Consider User Feedback Provided after Prototyping

7.3 Compatibility Test

Generally, an app has to perform on various platforms, operating systems, and mobile devices . If an app passes all the tests for Android, it does not mean the app will perform great on iOS too. Every platform has different standards and the app needs to fit all of them. Even if it's meant for a particular platform, it has to be smooth on various devices. So, compatibility testing makes sure of that.

Keep in mind the following:

- Test Compatibility with Different OS (e.g., Windows, Android, or iOS)

- Test Compatibility with Different Devices (e.g., with different screen sizes and data storage)

- Test Compatibility with Different Browsers

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7.4 Performance & Loading Test

A mobile app must go through the performance test with different workloads. Sometimes, the app may slow down with a greater workload. And the worst-case scenario, it may end up hanging or crashing. Therefore, to make sure your app never gets to face such embarrassments, this test is a necessity.

Keep in mind the following:

- Test Device Performance (e.g., battery consumption and memory consumption)

- Test Network Performance (e.g., the time it took to receive information)

- Test Server/API Performance (e.g., data transfer speed & format)

7.5 Security Test

Everything valuable needs to be secured, and so does your app. Security breaches not only leave a dent in the brand image but also can end up as a lawsuit. Thus, security testing is a process that never ends. You need to keep testing it regularly and update the app in accordance.

Keep in mind the following:

- Test Code for Malwares

- Test for Weak Server-side Controls

- Test Authentication Procedures

- Test Permissions

Furthermore, If you don't want to leave any stone unturned, we highly recommend you to exercise both Manual Testing, as well as Automated Testing. Both work in different ways and have separate advantages.
Again, we can not put more emphasis on it, so do test your app.

Well, this brings us to the end of the 'App Design Process". And it's time to have a quick look at the other side of the coin i.e.- "Process of Application Development".

3 TIPS

To Design Highly Engaging Mobile Apps

If you want to give your design an extra edge, we have consulted our best designers and they shared a few tips that you must keep in mind.

1. Always Follow UI/UX Design Guidelines

Don't you want your user to be familiar with your app? The UI/UX guidelines are not to restrict your creativity or limit the scope of your mobile application. These are for making your app easy to use and intuitive instead.

The answer to "how to design an app?" lies in following the design guidelines. These measures make your mobile app fluidly compatible with all the devices. And they also take care of every tiny detail that you might miss otherwise. Hence, the guidelines make it simple to design and test.

Some guidelines regarding color contrast, accessibility, and security not only enhance the user experience but save the apps from expensive lawsuits too.
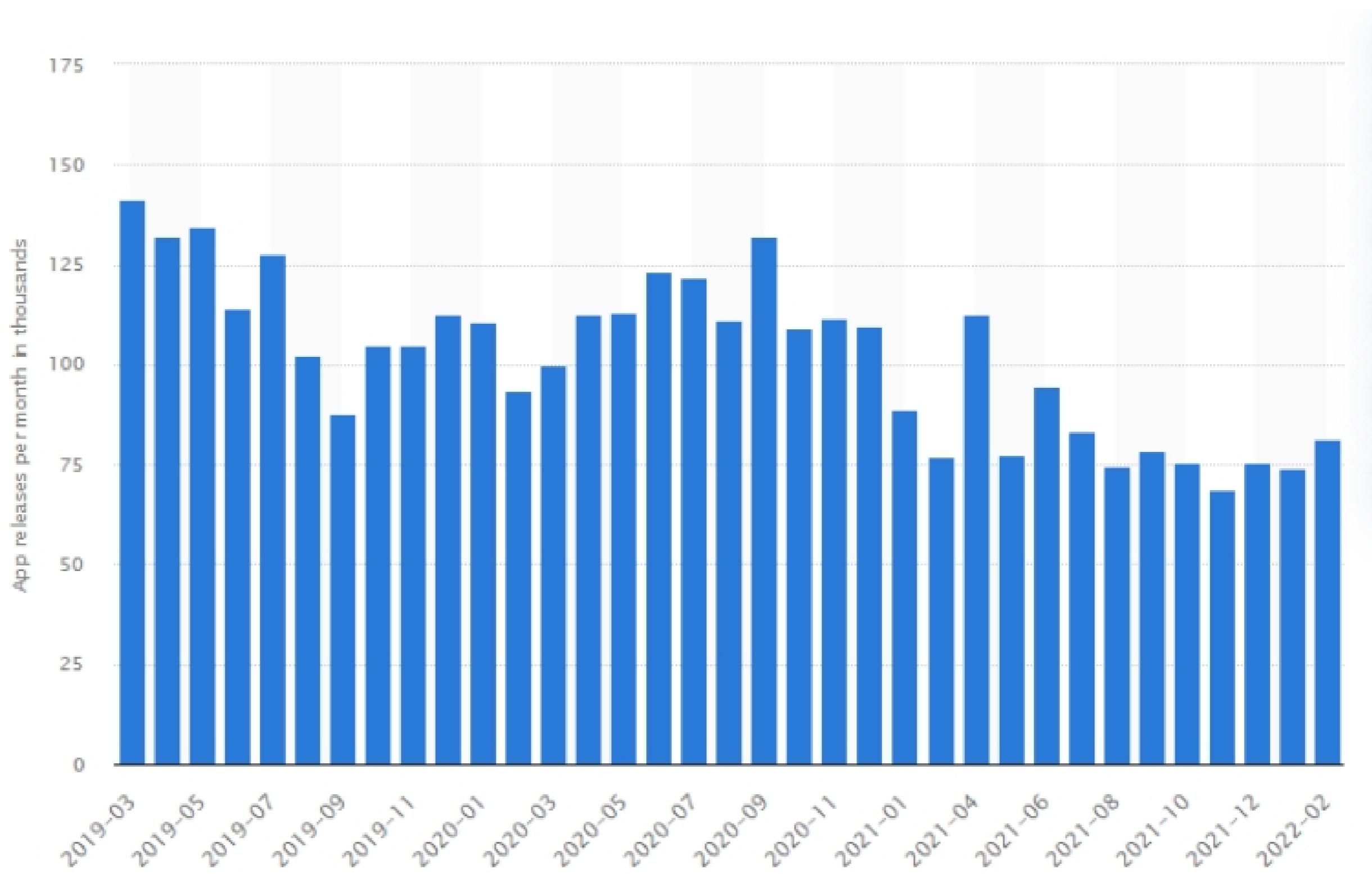
Moreover, platforms like Google Play Store for Android and Apple App Store for iOS promote your app if it satisfies all the guidelines. Thus, to make your mobile app a popular one, you must follow the best practices and the user interface/user experience design guideline.

2. Update Yourself With New Technology & Trends

Do you know?

Over 81,000 new apps for Android via Google Play were released in just a month of February 2022.
Now imagine, how many would those be for iOS and other platforms?

Source - Statista

Therefore, to stand out in this highly competitive world, you have to be updated with the new design trends and technologies. You need to innovate and evolve with every single app that you design.

It involves researching your competitor's work, user requirements, and niche-specific functions. Without being on pace with the new technologies, your designs get outdated and repetitive.

And it does not apply to when you start designing a new app, you have to keep updating your already launched apps for enhancement.

3. Take Suggestions From Your Colleague For Your Design

Everyone has a different taste when it comes to design. What you find appealing can be dull to someone else. Therefore, when we are designing a mobile application for a larger group of people, it must be appealing to all. Now how would you achieve such a design?

The solution is simple, to take suggestions from your colleagues. A great design can only be achieved when professionals from different fields are actively involved in each step of the design. The feedback from app developers, market executives, and others as users are vital for an excellent design.

The following are some examples of style guides:

- What font family will the text in your app be?

- What color scheme will you use?

- Does your mobile app represent your company's brand?

Only after creating style guides, you can understand the design strategy of a mobile app. Additionally, following the style guide will help you enhance your mobile app. Also, it is essential to consider the style guidelines of the Google Play Store and Apple App Store.

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