

WHITE PAPER



Use Of

App Development Platforms

Flutter - React Native VS Native Frameworks



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Introduction On App Development Platform

Today with the growth of technology, the app world has become one of the greatest business development platforms. Today, each business wishes to have its own business application to cater the online customers as well as the smartphone audience. Be it web applications or mobile applications, the app world caters to a huge customer base that cannot be ignored by any business. With this there are a number of advantages that the app world caters to the marketers as well as businesses, these include the great customer reach, the high conversion potential due to seamless user experience of applications, a list of marketing features, the huge customer base and mobile apps create a lasting presence in the user's mind owing to the handy nature of the smartphone. With this, mobile apps are one of the fastest platforms that adapt futuristic technologies, whether it is enterprise mobility, Artificial Intelligence, Internet of Things, cloud computing and Blockchain technology etc.

Now when it comes to mobile app development there are various platforms through which a mobile app is developed. Some of these platforms include the native app development platforms individually for Android and iOS. While, the other platforms include React Native and Flutter. Which are suitable for cross-platform mobile app development. So, here the white paper discusses the various benefits of different app development frameworks along with the challenges faced or the limitations of each kind of mobile app development framework. Many businesses have surveyed the functioning of different frameworks whether it is the React Native, Native frameworks or Flutter framework.



React Native Introduction

What is React Native:

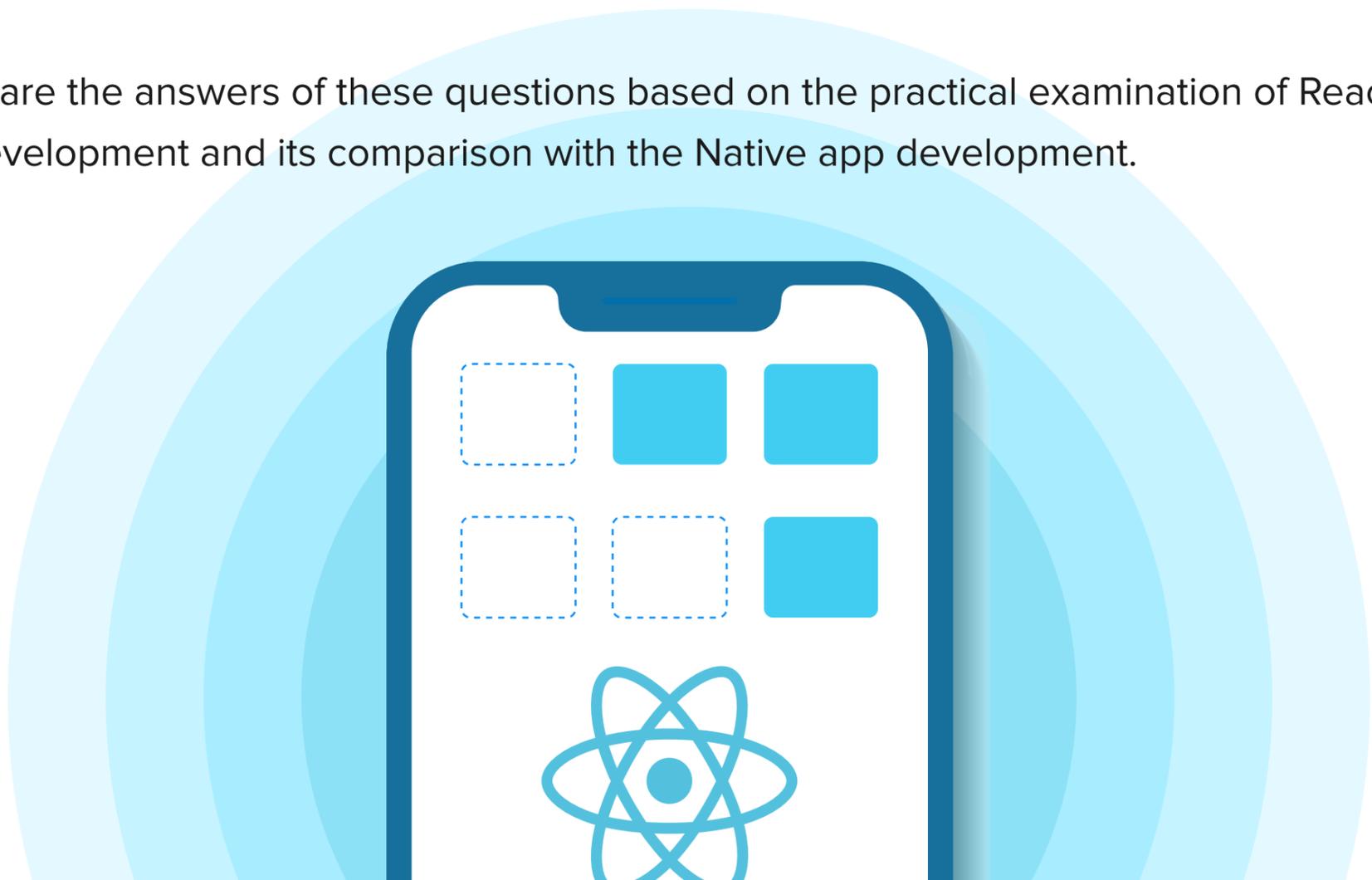
It is a framework built by Facebook, which is optimised to make cross-platform mobile app solutions. The framework is developed to get rid of using different native frameworks for the development of Android and iOS mobile applications separately. Instead with the use of React native a single framework can be used for making an app that works both on iOS and Android app development. With React Native framework the developers can employ a single codebase that would be used for developing mobile app solutions for both Android and iOS operating systems without comprising in the user interface design or the user experience.

Today, the popularity of React Native framework is increasing considerably and businesses have been well leveraging its various perks in cross-platform mobile app development. The study further give answer to a number of questions related to React Native framework, some of these questions include –

Why businesses opt for React Native app development?

Why React Native mobile app development is considered to be better than Native mobile app development?

Below are the answers of these questions based on the practical examination of React Native app development and its comparison with the Native app development.



How React Native Became Popular Framework For Mobile App Development?

There have always been a dream for developers to make mobile app development faster and more defined. With this, cross-platform mobile app development just appeared as a concept that was considered next to impossible to become a reality and it was absolutely unimaginable to make cross-platform app development more efficient or as efficient as native app development.

- Unlike the web development, where a single web browser was used to make different kinds of functional web app solutions, mobile app development was just an incepted concept 15 years from now. And developers didn't even know how to create an engaging user interface design for mobile apps.
- With this, it was hard to make a common framework that could work on all the useful mobile app platforms. Various popular frameworks like PhoneGap, Xamarin, etc. were tried to be prepared for cross-platform development but they failed to give a good amount of functionality as cross-platform frameworks.
- And with time, the importance of seamless user interface for mobile platform and apps increased and there remained only two dominating operating systems for the mobile app platform.
- One is Android that dominates more than 80% of the smartphone market as well as the mobile app world, while the other is iOS that holds the remaining smartphone market and the app world.
- On one end, where Android operating system caters to the universal customer base, the iOS operating system caters to the premium customer base. With this, both the platforms has a great customer base when it comes to the engagement potential as well as the buying potential of the customers.

Previously businesses used to bifurcate their target customer base on the basis of the mobile operating system they prefer (Android and iOS), but with the rising competition in the mobile app world, no business wishes to miss out on the potential customer base that may be present on the operating system they are not targeting and therefore businesses opted for both Android and iOS

version of the business application to cater to a universal smartphone customer base. However, with the use of native app development individually for both the platforms, the app development process became lengthy, took time as well as the cost of app development was high as the app was developed individually on both the platforms. Therefore, the need for cross-platform mobile app development arose so that the businesses do not have to compromise on the speed of development, the efficiency of app development, as well as the user interface and the user experience that the app solution offers. Here is where React Native framework comes into the picture.

- React Native is evidently the first mobile app development framework that offers cross-platform app development.
- The framework allows the developers to make a single mobile app that works seamlessly on both Android and iOS platforms without compromising on the speed of development, lowering the cost of development, and offering the desired look and feel for the app solution.
- With this, there is one point businesses need to keep in mind, which is that the look and feel of an app solution built using React Native framework mainly depends on the expertise of the mobile app developer or the service provider they choose for their business app development.



What Are The Perks Of React Native Framework Over Native App Development Framework?

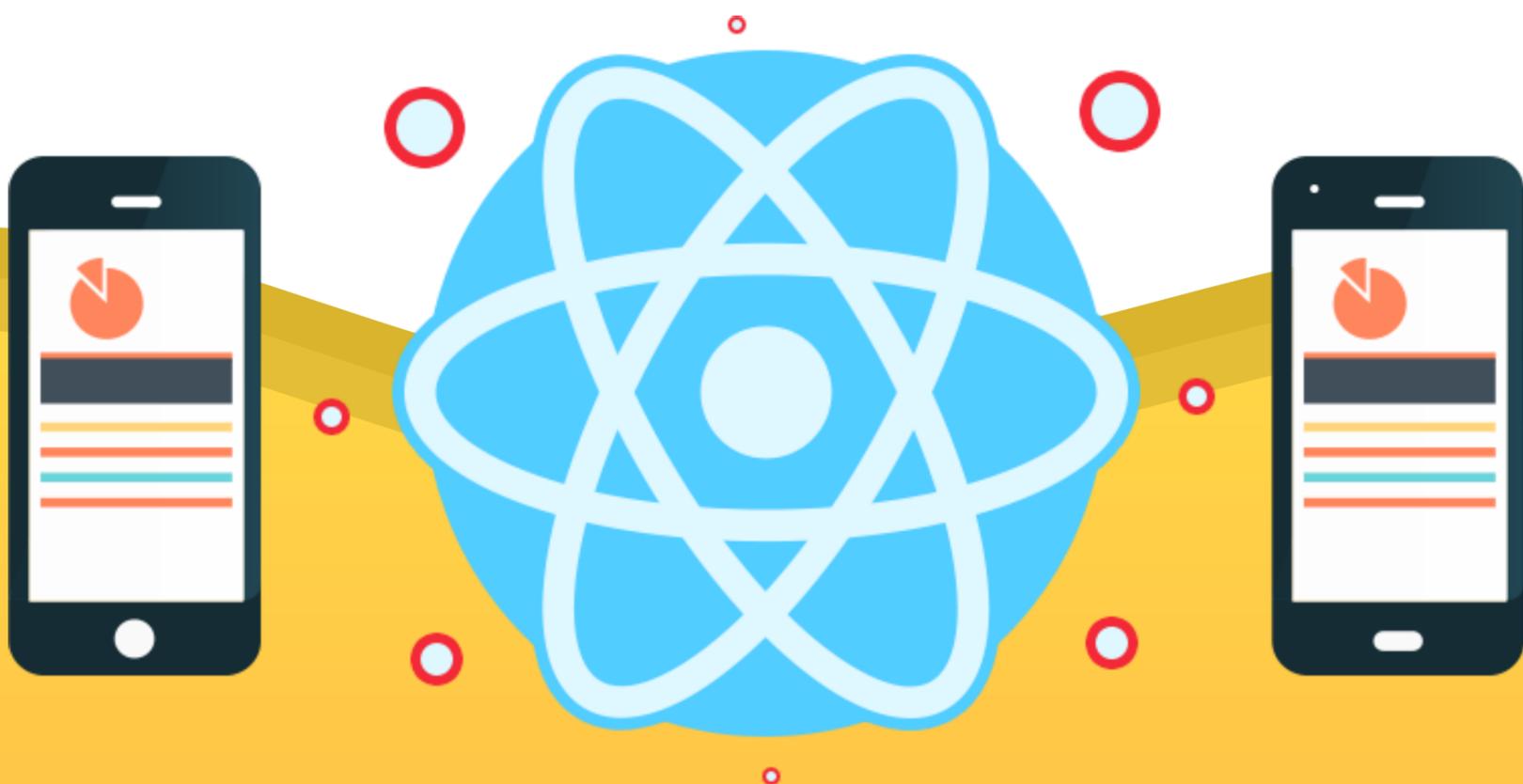
As according to a survey by a company, they used Native app development framework for the development of an iOS app solution and another application was built using the React Native framework. But, here the point of concern comes as the requirement of the project, if a project requires just an iOS or Android application, then it is recommended to choose the Native app development framework. In case of building just an iOS application, there is no point in employing the React Native framework and instead you need to choose the Native iOS framework to leverage the platform specific features (like iOS ARKit).

- When it comes to cross-platform development project React Native is surveyed over 80% of app development projects by businesses across the world and it offers an increased speed of mobile app development from 30% to 40%. And with this, the cost of app development also decreases as the same code file works for both iOS and Android platform.
- Various surveys conclude that using React Native for cross-platform app development helps you gain in the speed of app development and higher speed means faster development and lower cost of development. With this, as a business you get a fully functional mobile app solution, which delivers the desired look and feel.
- One other point is that, the mobile app developed through React Native is easy to be modified and bug fixing is also convenient as a bug can be fixed for both the platforms (Android and iOS) at one place simultaneously.
- With this, it needs to be kept in mind that React Native isn't always the perfect framework for your app development idea, and therefore it depends on the framework suggested by your technology provider.
- As in some cases, when your app requires a certain amount of functionality as well some complicated user interface, React Native framework may fail to offer you the desired results and in this case you need to choose the framework that can help you leverage platform specific features to build a great user interface design for your app solution.

How Is The Quality And The Look & Feel Of App Solutions Built Using React Native Framework?

Building mobile applications using the React Native framework isn't just a child's play and the developers or the service providers you choose need to have good expertise in Native mobile app development. Because while building the user interface of a mobile app in React Native, developers need to have a good experience of building seamless user interface in Native framework. Therefore, most of the expert React Native mobile app developers have previously worked extensively on Native mobile app development frameworks like the Swift, Kotlin, Java, Objective-C, etc. So, they know to build an interactive and engaging user interface for mobile apps

One thing is for sure that the user interface design as well as the user experience that your mobile app solution built on React Native platform delivers is based on the technical skills of the mobile app developer you hire.



Flutter Introduction

Flutter refers to a portable UI toolkit, or better referred to as a comprehensive app Software Development Kit (SDK), that is integrated with widgets and tools. Flutter was launched in 2018 and became popular as a great option for cross-platform app development. Flutter allows the developers to develop purely engaging, interactive, feature-rich, and natively-compiled app solutions for mobile (iOS, Android), web, and desktop platforms – all just by employing a single codebase.

Here Are Some Of The Important Details About Flutter That You Would Like To Know:

- Flutter is free and open-source and was launched in 2018 by Google.
- Flutter cross-platform app development is based on Dart programming language.
- Dart is an object-oriented programming language that is supported by set of modern UI features.
- Dart is a new programming language and developers who have good knowledge of Java and C# find it easy to learn Dart.
- Flutter is empowered by its set of individual widgets which helps in making customisable and attractive app solutions in a less time with increased performance.
- Owing to the widget experience, UI and UX of mobile apps built using Flutter is impressive.
- Flutter is maintained by Google community as well as dedicated Flutter community.
- Despite being a new technology Flutter is stable and impressive in its performance owing to its active community.

What Are The Various Perks Of Using Flutter As A Cross-Platform Mobile App Development Technology?

- Flutter offers the Hot Reload feature, that is up for fast coding.
- Developers can use Flutter to make app solutions in a less time and more dynamically.
- Flutter allows the developers to make changes in the codebase and these are reflected instantly in the application. This is owing to the Hot Reload feature that helps reflect the changes in the codebase within milliseconds.
- The Hot Reload feature is great when it comes to support the developers during customisation of an app solution.
- Developers can add new features, fix bugs and explore new elements instantly using this feature and see how it reflects in the application.
- Flutter allows developers to write just a single codebase for both the versions of a mobile application, Android as well as iOS.
- Flutter being platform-agnostic has its own widgets and designs, that allows the developers to create the exact same features and user interface on both iOS and Android platforms.
- With this, the application can be differentiated on different platforms with ease by employing the platform-specific features as well.
- Google is presently working on making the application fully capable for web app solution development as well and when it is achieved, Flutter tool kit can be used to make an application with three versions (the Android version, iOS version, and the web version) using a single codebase.
- The testing time using Flutter mobile app development decreases by up to 50%.

- When you employ Flutter for mobile app development, the Quality Assurance time required is almost half as compared to the quality assurance time required in native mobile app development.

The Other Features Of Flutter Include -

The automated tests written by developers using Flutter cross-platform development are 50% less as compared to other app development frameworks as the same tests can run on both the platforms. With that said, the manual testing of the applications would require the same efforts and time as in native mobile app development. As the quality analysts will have to write manual tests for different platforms and check the apps performance manually on different platforms (Android and iOS platforms).

Flutter tool kit can be used to create purely engaging designs. Flutter does not have to depend on the platform specific native design components as it has its own set of custom widgets, that are managed independently by the framework's graphic engine. The UI components built using Flutter are different from that of the UI components built using Native apps, but that is not a disadvantage and Flutter apps are recommended for their user-friendly design interface. With this, the impressive UI design of the mobile app solutions built using Flutter gives you an advantage over the apps built using React Native, which demands great attention to the graphic detail development.

Flutter app development is compatible for older versions of iOS and Android app platforms and so, businesses don't have to worry that their Flutter built app solution would be supported on older devices or not. Flutter can be the perfect option when you wish to build your own MVP (minimum viable product) solution. Flutter allows faster development than other frameworks (Native and React Native) and it helps in developing a MVP in a shorter time and at a reduced cost than other frameworks.

Mobile app solutions using Flutter offer great performance and seamless execution without hanging or link breakage while browsing through the app or scrolling down. The Flutter tool kit employs the Skia Graphics Library for the interface design and this calls the UI code every time when there is a change in the view. In mobile app development through Flutter most of the graphics work is executed on Graphics Processing Unit (GPU) which makes Flutter display smooth user interface at 60 fps (frame per second). With this, there is one thing that the developers need to keep in mind while making the graphics for the Flutter application is that they need to program only for those elements that change when the view changes and not for the elements that remain the same. As redrawing all the elements in an app can decrease the performance of the application, especially if the view needs to be reloaded frequently.

Solutions Provided By React Native And Flutter Cross-Platform Frameworks In Respect To Native Mobile App Development

Solutions Provided By React Native For Mobile App Development

Developers have innovated cross-platform for mobile application development which has brought a revolution in the app development industry by giving an alternative to fully native app development. Cross-platform, just like native app development, enables the user to create separate apps for iOS and Android and also allows to minimize expenses and save time by using the same code in both the platforms. React Native framework is considered as the future of cross-platform mobile application development.

React Native is an open-source framework that enables the user to build a complete mobile application only with the help of JavaScript developed by the team of developers of Facebook for the motive of simpler development and interactive user experience. React Native framework works completely like the Native app framework and can be built on Java, Objective-C or Swift. Also, React Native apps use the same interface as Native apps for iOS and Android. But in contrast to native apps, they are time efficient and require less amount of capital investment.



There Are So Many Benefits Due To Which React Native Is Being Used All Over The World, Some Of Them Are As Follows -

Growth Of A Large Community

- React Native, being an open-source platform, gives all its community members access to all the documentation, that means anyone from the community can use the codes that have been documented for free. This helps in growing the already large community into an even larger community.
- Open-source platforms always attract developers, and this is open-source as well as easy, so the number of people who have joined the community in the past few years have been outstanding.
- If someone from the community faces any problem then they can also interact with the experts of the community to solve their problems.

Code Is Reusable And Has Pre-Built Components

- This is the most important characteristic of this platform, the framework is such that the developers do not need to write separate codes for separate platforms, one code can be used for all the platforms.
- This helps save cost that is incurred in making different apps for different platforms and time taken in that process too.
- One code for all the platforms, this quality of this platform makes it so popular in the community of the developers and also the companies that are in the business of software and application development.
- It also has an open-source library of predefined components that can be used in building apps and that speeds up the process of app development.

Simplified Ui

- React Native is all about the mobile user interface if the framework of it is compared to other platforms like AngularJS and MeteorJS then we will notice that it looks more like the library of JavaScript than its framework.
- A sequence of action is important while building a mobile app and React Native makes the implementation of these actions just so easy and perfect.
- If someone from the community faces any problem then they can also interact with the experts of the community to solve their problems.

Modular Architecture

- This is one of the most interesting benefits of the React Native framework. Modular architecture or modular programming gives the advantage of separating various parts of the code into independent and interchangeable blocks which are popularly known as modules.
- Module architecture in the React Native framework provides flexibility to the code as various developers can excavate into each other's programs. This facility makes it easy to update the code when needed.
- In addition to it, modular programming enables the user to upgrade the programs quickly and reuse the modules in other applications' code as well.



Live And Hot Reloading

- React Native comes with Live and Hot reloading which is a very interesting and astonishing feature to use.
- Live reloading helps to read and compile a file which the developer has made changes and then it provides a whole new file to the simulator. Live reloading reloads the app for the beginning.
- Hot reloading can be described which has the same sequence of actions as live reloading.
- It also has the ability to make changes in source code and the changes can be seen even before recompilation of the app, generally making changes in the source code does not need recompilation as far as hot reloading is concerned.

Innovative Style Of Coding

- React Native has a very innovative and declarative style of coding. By declarative style, it means that the program itself describes what to do rather than how to do. This is the exact opposite of imperative programming. It enables the code to become much more flexible and understandable to the coders.
- Declarative programming also helps in a great way when the developer focuses on jumping into a new platform and understanding the project quickly.
- The programs coded in React Native framework have simple coding paradigms and easily readable for both the system and the application developer.

Ready-Made Solutions And Libraries

- The React Native framework comes with plenty of ready-made solutions and libraries which help the users in numerous ways.
- It facilitates the mobile app development in various forms, such as the testing libraries enables the user to write flawless codes and develop software which is error free and bugs free.
- Also, for type checking, numerous tools are available like ProTypes and Flow. Other functioning tools are also available for linting, setting up the networking flow, state management, etc.
- React Native is also compatible with JavaScript libraries which gives developers the ease to operate while switching to this framework from other platforms.



Solution Provided By Flutter For Mobile App Development

The use of the framework is made by different companies to systematically make use of their programs and so that everything eventually connects to complete the task.

As we are talking about Flutter, it is also one kind of framework that helps in the development of the mobile application. It is actually designed by Google. It helps the users in developing apps for the android and also iOS, even it helps in creating apps for Google.

The Important Features Of Flutter



Dart platform



Flutter engine



Foundation library



Design-specific widgets



Dart Platform

- Flutter mobile app development has the ability that can be used by developers with many different languages and also it has several additional features. It also makes use of the Dart language.
- It has a very important feature where the user can make changes in the source code with the help of its key feature that is known as hot reload. Here in this hot reload process a user can change the source code even while the application is running.
- It has also further extended ability to make changes in the source code with the help of its feature known as hot reload. They can make changes in the source code instantly without restarting the applications or without any loss in the state.

Flutter Engine

- It actually helps in the hosting of the flutter applications. It also helps in the implementation of the flutter libraries that actually includes functions like- graphics and animation, I/O of the file and network, plugin support, accessibility support and also it helps in the runtime of the dart language.



Foundation Library

- This library helps in the development and also in the construction of applications with the help of the flutter. This library is basically created with the help of the dart language.
 - Also, it provides certain functions and also classes that help in the development of the apps in the flutter. Applications like API can be developed with the help of those functions and classes and such apps help in communication with the engine.
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Widgets

- Dealing with the graphic design, smooth running of the user interface, the colour that is to be used in the development of the application, the layout and structure, text and shapes, including animations this all demands in that are developed during the app development is done or performed by the several widgets.
 - Widgets handle a lot of features to handle the app in an improved and required way as the user wanted to. But the use of widget is an optional feature in the case when related to drawing a canvas where you need to add shapes and text, there we can also use the foundation library in the applications like the text and shapes.
 - In addition to it, modular programming enables the user to upgrade the programs quickly and reuse the modules in other applications' code as well.
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Design-Specific Widgets

- The user can make use of the widget in two different ways to prepare or design a specific language. As the use of material design widgets helps them by providing the same Google language while the use of the Cupertino widgets it actually helps in copying the same as the apple's iOS designing interface.

Advantages Of Using Flutter

What is basically required by the app owner? They want their app to run smoothly with the use of a good quality user interface, also the production cost of the application should be low and also the smooth running of the animations use in the application.

- **Faster code writing:** It has one of the best features that is praised all over the world for this unique variety. They provide the user or the developer a feature that is known as the hot reload. Now, this feature helps the developer to change the source code even when the application is running. They also provide the ability to change the source code instantly without the requirement of any restart of the application and also without any loss of the state.
- **Use of one code for two different platforms:** Now with the use of the flutter you don't need to go with different platforms to create your code for android or iOS devices. But now the developer can create their one codebase that can be used in both the platforms including the android and also the iOS devices.
- **Requires less testing:** When the developers make use of the same code in two different platforms then the test of the code is limited because the developer needs to run the test for only one app. It reduces the workload of the quality assurance experts as they need to check only one code used in two different platforms. But if you have certain differences in both app then you need to run a test for both the apps individually.
- **Faster apps:** The apps created or developed with the use of the flutter application framework are fast and reliable. The use of the UI design is smooth here and so the developers can create a fast and responsive app.
- **Customised designs:** The users require an app that is fast and responsive obviously. Also the app must have an attractive layout to portray their icons and the use of the animations also must be smooth. These all cases can be used by the widgets these widgets they help in the management of all these requirements and also we make use of this widgets for customisable purposes.

Also perfect for MVP: An entrepreneur always tries to work on conventional methods- by doing market research, making a strategy, acquiring a product idea and hiring a group of team. They always think about all these factors and before starting their business. This is also not a wrong concept but this concept always does not favors the ones who are going to launch their products for the first time in the market. They try to give their 100% effort in their work and trying to accomplish it with all their team investing a lot of amount before launching the product. They actually want to deliver their final product to the customers. So, the use of flutter for those who do not have much time can be really helpful to make the investors know about your applications.



Challenges Faced In React Native And Flutter Mobile App Development Frameworks

Challenges Faced With React Native Cross-Platform Mobile App Development Framework

- 1** It is Quite Different from Native – The cross-platform app solutions built using React Native framework are not exactly the same as the app solutions built using Native app development both in terms of performance as well as the UI experience offered by them. However, React Native is still preferred over Flutter app development as the performance and user interface design it delivers gives a ‘native feeling’, which is close to the resemblance delivered by Flutter based cross-platform mobile app solutions. If a developer wants to create native components in the Flutter app solution, additional work and additional time would be required.
- 2** Fewer Components Out of The Box – React Native doesn’t support all the out of the box components and the developers only have access to some basic components that include a button, loading indicator or a slider element, etc. While, the Flutter app development toolkit is developed to support out of the box Material Design as well, and it has a list of widgets. This helps the Flutter developers to make a number of design views and out of the box elements through pre-made widget which allows easy customisation and are cross-platform consistent.
- 3** Developer has a freedom of choice – React Native development platform is hard to execute as most of the applications navigation is based upon the choice a developer makes and therefore this can be a curse as well a boon. When we opt for React Native mobile app development then every time the developer creates a new project he has to decide the navigation package to choose as well as the global state management to use. This practice of can take a lot of time as developer need to understand each project scope and then decide the navigation package accordingly.

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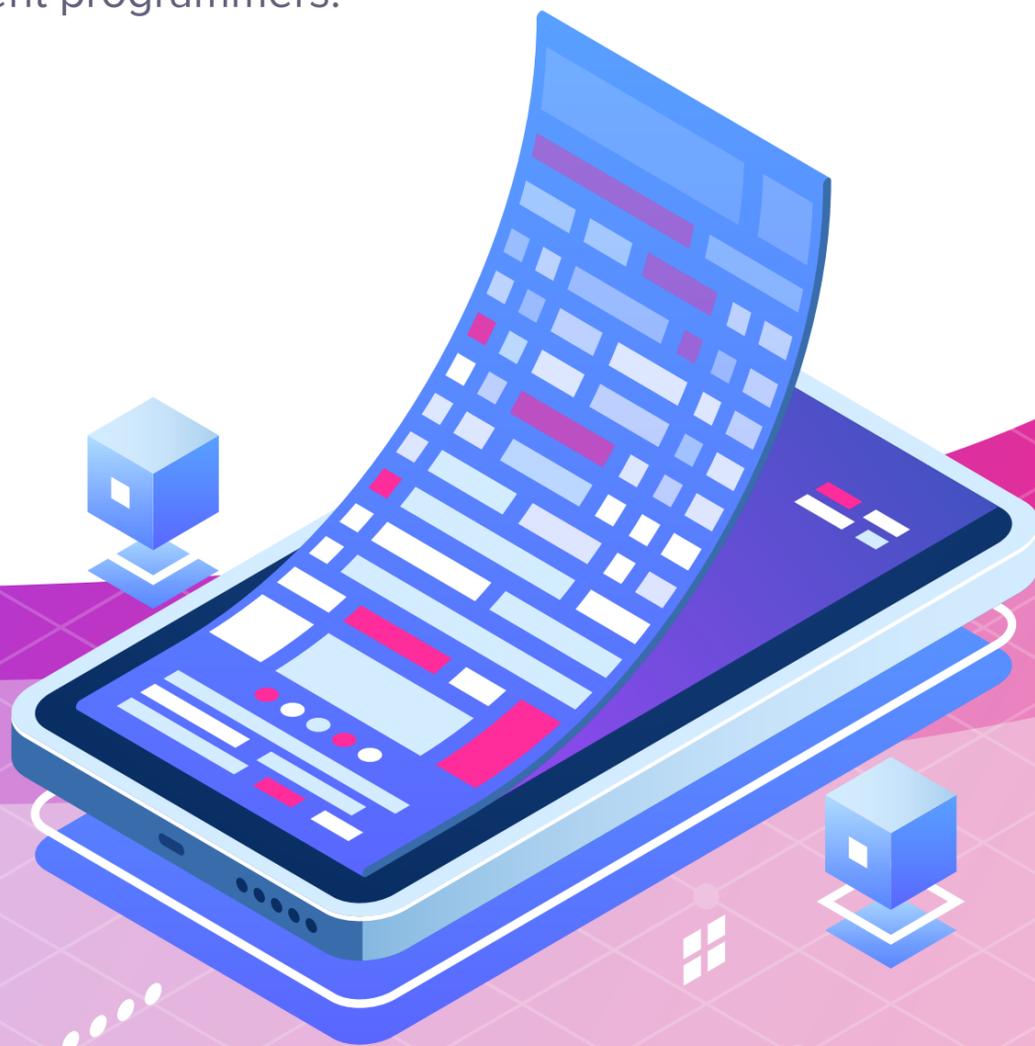
Finding Useful Resources Among Abandoned Packages – React Native have a huge number of libraries and a large number of them are abandoned altogether or are of low quality. Therefore, it is hard for the developers to find useful app development resources in the huge junk. This can waste time and efforts of the developers.

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User Interface Design of your App is Fragile – React Native app development framework employs native UI components in the app development process and with each update these app components are upgraded. However, there are few chances that it can break the application's user interface design. Further, if there are any updates in the Native components UI

Though React Native has so many benefits but still it has been considered an immature framework by many popular companies like Airbnb and Udacity. Also, the user interface is a little bit complex which makes it unfit for the apps which require complex graphics, animation and screen transitions. Also, it has more initiation time, even in high-end devices which slows down the development.

With these drawbacks as well as mentioned benefits, it can be concluded that React Native can complete most of the application's and developers' needs unless it has some platform related issues and is a great tool for efficient programmers.



Limitations Of Flutter Cross-Platform App Development:

- 1 Small size of the Flutter developer community** – It is popularly known that React Native as well as Native frameworks have more experienced and well-established developer community as compared to the Flutter developer's community. With this, Flutter is young and new and it will take time for the developers to adapt the language readily. However, the Flutter community is experiencing an exponential growth and the features offered by the Flutter toolkit are loved for cross-platform development. The rate at which the popularity of Flutter is growing has increased considerably and it is expected that it will not take Flutter much time to compete shoulder-to-shoulder with React Native framework.
- 2 Dart Is Less Popular** – Dart programming language of Flutter is not as popularly known as compared to JavaScript programming language used for React Native cross-platform app development. JavaScript being popular is more understandable and developers are familiar with it.
- 3 Libraries & Support Are Not As Rich As Native App Development Frameworks** – Flutter being a young language it is supported by a new community. Although being built by Google, and having impressive support from Google, Flutter falls short when it is compared to Native app development for the community support. When developers employ Flutter for mobile app development, it is not always possible to find the desired functionality and, in this case, the developers need to build custom functionality for building an app exactly the way they want to build. This part often takes time and increases the overall time of development, which as a result increases the cost of app development through Flutter.
- 4 Flutter Fails To Offer Continuous Integration Support** – When Flutter is written, it is not supported by a dedicated continuous integration platform like Jenkins or Travis. So, to ensure that Flutter app development is executed seamlessly, and the developers could integrate automatic development, the automatic testing and the seamless deployment of Flutter apps, the developers need to make custom scripts. However, Bitrise has announced a fully-featured Flutter CI in January 2019.
- 5 Flutter Relies On Google** – Though Flutter is open-source but being young and having less resources for app development it totally relies on Google for every project and it is hard to remember the growth of Flutter as a cross-platform app development technology without the support of Google.

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Flutter Application Size – The mobile app solutions built using Flutter are greater than app solutions built using the Native app development frameworks. With larger APK size, larger space is needed in storage and it can impact the app solution's popularity. However, the Flutter community is working towards reducing the size of applications that are developed using Flutter app development tool kit.

The use of the flutter mobile app development is a progressive process where you can achieve fast and instant responsive apps. It is a powerful tool to develop such customised applications. The market and also the users demand for apps that works really fast and does not crash frequently. So, the developers make use of the flutter, they can also create their apps without the use of the flutter but the reliable and customised reliable apps that can be developed with the help of flutter is more effective and reliable.



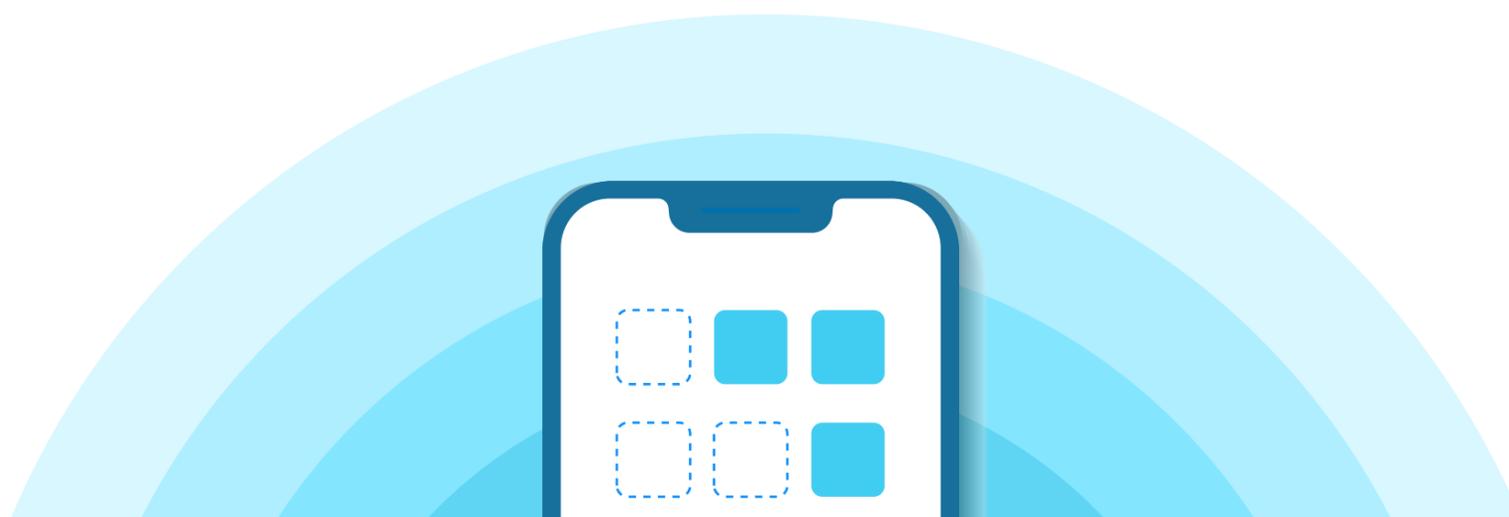
Stats Related To React Native And Flutter Mobile App Development Frameworks

React Native Statistics That You Need To Eye Upon -

Nowadays, more and more companies are shifting towards this technology due to its beneficial features. React Native mobile app development framework has been successful in earning itself great popularity, market share and community support since it was introduced first by Facebook.

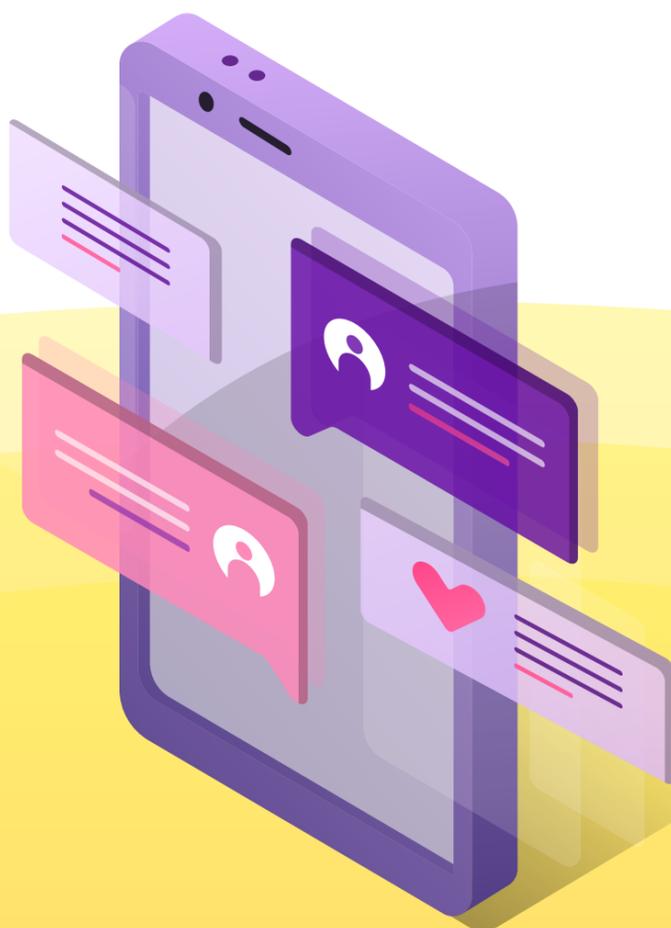
Here are some statistics for you to analyse the popularity of React Native:

- Stats from the Github repository reveal that about 1002 contributions have been committed 7,971 times across 45 branches and 124 releases.
- React Native is also the 14th highest most starred repository by developers and businesses on Github.
- According to researchers, the market of cross-platform engineering, which basically include React Native development, is estimated to grow from \$25 million in 2015 to \$81 million to 2020, which is a massive increment in this field.
- About 67% of total developers have started using JavaScript as a tool for development of apps.
- React Native cross-platform mobile app development gained the maximum popularity after 2017.



Flutter Tool Kit Statistics That You Need To Know –

- Flutter cross-platform mobile app development became popular within the past two years and as the statistics reveal, Flutter gained more than 25,000 stars within 1 year of its launch in 2018.
- According to recent stats, Flutter's popularity peaks are just about 20-25% less than that of react native's graph.
- Flutter has been a preferred cross-platform framework because it is supported by Google. It is backed by a dedicated Material Design Team and a large community of over 1000 developers, willing to contribute wholeheartedly for the growth of this framework.
- The average time to develop an app on Flutter is about 250 hours and this app being suitable for cross-platform performance works both on iOS and Android operating platforms. While, it takes about 400 hours to develop an app on iOS platform alone and another 250 hours on Android platform when you use Native mobile app development platform. This is one of the reasons why businesses go for cross-platform mobile app development services using Flutter.



Flutter Vs React Native Cross-Platform Mobile App Development Framework

Flutter App Development	React Native App Development
Flutter is a portable toolkit that is designed such to help developers build cross-platform ready apps for web, mobile and desktop platforms just using one	React is a cross-platform framework that is used for making native mobile applications.
It is created by Google	It is created by Facebook
Flutter is an open source platform and is free.	React Native is a free and open source framework.
Flutter is based on Dart programming language	React is based on JavaScript programming language.
Flutter peaks at 68,000 Stars on Github as of June, 2019.	React Native holds higher popularity with 78,400 stars on Github.
Delivers great Native performance.	React is preferred for its impressive Native performance.
Owing to individual widgets Flutter apps offer impressive look and feel.	React app solutions are stable as they are in the market for 4+ years now.
The Flutter community is growing rapidly along with its popularity	React Native already has a great community and popularity.

Flutter team guides for an excellent documentation and helps developers to adopt Flutter readily and with ease.

React app development framework is easy to learn for developers experienced on Native mobile app development.

It offers an unparalleled time-to-market length.

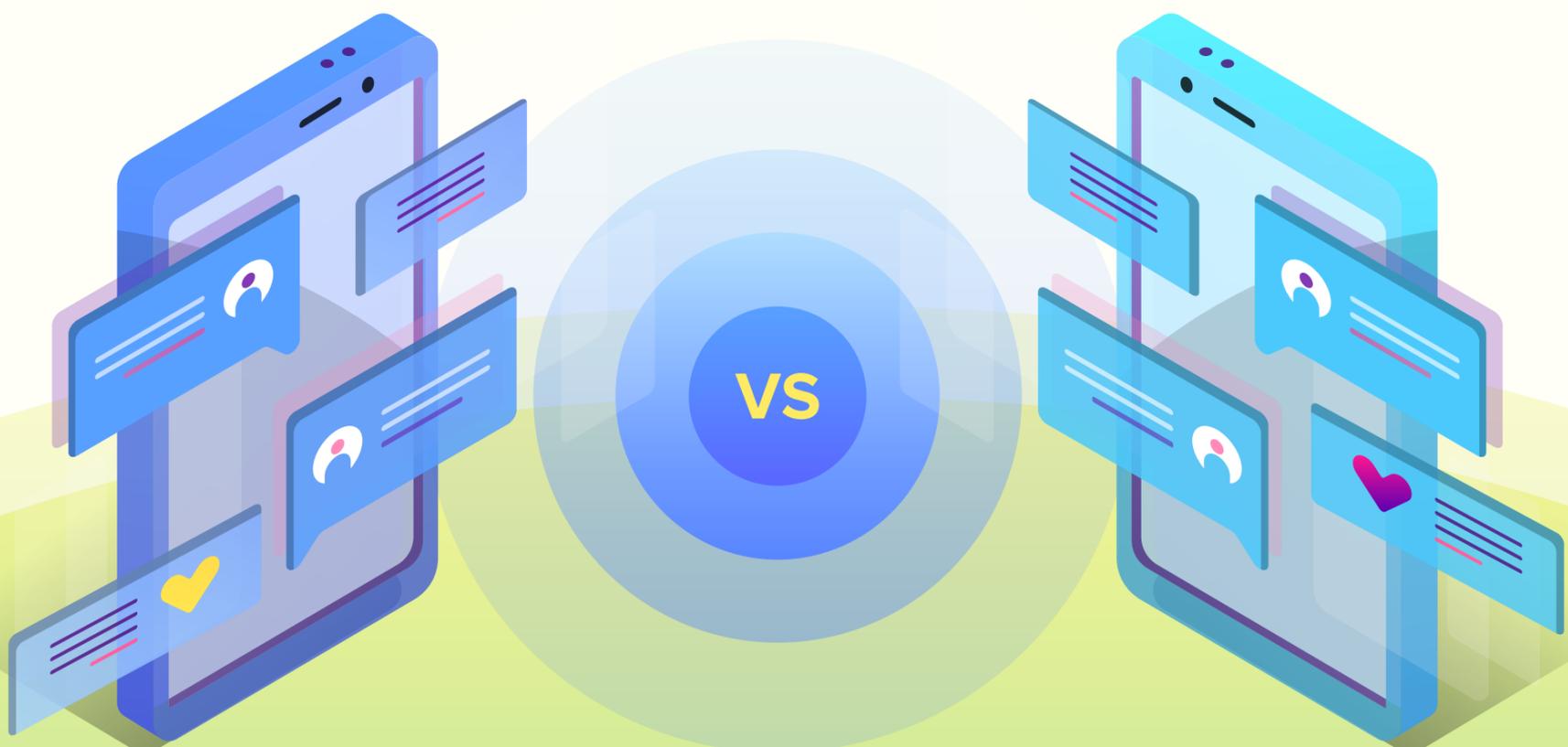
Many brands and market leaders are using and rely on React Native app development.

Flutter is not preferred when the app needs 3D support as it doesn't support 3D, which is there in Flutter team's long-term consideration.

React Native is not preferred by developers in case the app needs to handle less common or ultra-specific tasks that can be calculations in the background.

Some popular app solutions that are made using Flutter app development are – Google Ads app, Xianyu app by Alibaba, and Hamilton app by Hamilton Musical.

Some of the most popular app solutions that are made using React Native app development framework are – Instagram, Skype, Facebook, Facebook Ads and Tesla.



What We Can Provide You

We have been helping businesses with leading-edge mobile app development solutions for 9+ years now and hold a great expertise in the field. Our huge team of expert mobile app developers have been helping over 200 businesses bring their app idea to life. We have been working over various mobile app development technologies and hence has the experience to cater the best solutions in the field. Whether you wish to build native mobile apps through the use of Native frameworks, or through cross-platform app development frameworks like React Native and Flutter, we could help you with custom app solutions at best prices.

About Us

Dev Technosys is a well-renowned web and mobile app development company that has been helping businesses with a variety of digital services from designing to development. Dev Technosys has 9+ years of experience in the field and is backed by a huge team of 120+ IT experts who are well updated with each technology advancement to deliver precisely young technology solutions. The company serves businesses and agencies across 40+ countries and delivers a long list of technology solutions including mobile app development, wearable app development, web app solutions, progressive web app development, full stack web development, Artificial Intelligence solutions, Enterprise Mobility applications, CMS software solutions, etc.

Dev Technosys has served more than 950+ successful projects and is among the best digital service providers in Asia. The company serves across a long list of domains including – finance, automobile, gaming, hotel & hospitality, travel, real estate, manufacturing, retail, eCommerce, telecommunications, marketing, IT, etc. With this, Dev Technosys has served a huge client base of over 450 businesses spread across the globe.

Here Are Some Of The Achievements Of Dev Technosys:

- Listed among Top Mobile App Developers by Appfutura.
- Recognised among the Most Reliable Companies by Extract.
- Recognised among Firms That Deliver The Best Technology Solutions by Clutch.
- Among Top Mobile App Developers and Agencies by Business of Apps.



Dev Technosys started back in 2010, is a perfect fusion of talent, endeavoring over 950+ successful Custom web development and Mobile application development projects. Since our outset, we have dwelled on the notion of “Bringing IT to Life” and cultivated a successful history of digital solutions for SMB’s and enterprise-level companies with utility-based software; designed for a wide range of technologies.

To Know more about react native app development services email us at info@devtechnosys.com Or you can even call us at [+1 415-992-5493](tel:+14159925493)



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