How Much Does It Cost to Develop an App? | GoodFirms Survey

With the prevailing immensity of smartphone usage, almost all consumer businesses have their mobile apps now and should have one. And if businesses choose to go mobile-first, they need to be clear and analytical about it.

Getting an app developed is a complicated affair that requires a considerable expenditure of time, budget, and effort. And when the business itself is based on the mobile app, the development cost and time become the make-or-break point of the success.

So, how much does it cost to make an app? Typically, a simple app can be made with a budget of \$24K within 4.5 weeks. Although, a sophisticated app would require a budget of \$137K and 26 weeks. Indeed, the time and cost to develop an app play a crucial role. But it's not that simple!!

Moreover, there exists a huge difference in mobile app development prices based on geography, platforms, app complexity, and development phase. Our survey-based research discusses the breakdown of every significant factor that affects the overall mobile app development cost and time. It offers detailed but simplified data and insights from 167 mobile app development companies across the world.

In a recent GoodFirms survey, the participating firms were asked questions on two different, but decision-making data sets - Costs and Time - for roughly 80% of their projects.

Under the section of Costs, the firms were asked to provide hourly rates to develop a mobile application based on the type of project (economic project & high-end project), and for platforms (iOS, Android, & Cross-Platform). From the data collected, the type-based average hourly costs were calculated for app platforms and different geographies.

Under the section of Time, the firms were asked to provide the minimum and the maximum number of hours they usually require to complete a specified development stage or a set of app features. From the data collected, the hour ranges with the median minimum and the median maximum were calculated, along with the highest maximums for certain, required cases.

The resulting averages and medians were then worked to provide answers to a variety of app development costs and time-related often-asked questions. Some of these questions are:

- How much does it cost to develop an app?
- How long does it take to develop an app?
- What are the factors that affect development cost and time?
- What is app complexity? How does it affect the cost of app development?
- How much does it cost to make an Android app? or an iOS app? Or a cross-platform app?
- How much does it cost to make an app in the USA? Or in India? Or in Ukraine?
- How much does it cost to design an app? Or to maintain it?

This way, business buyers can have a top-level perspective on cost and time issues with a highly comprehensive, and yet, easy to digest analysis.

KEY TAKEAWAY: HOW MUCH DOES IT COST TO DEVELOP AN APP?

Simple calculating with the time taken and average hourly charges (\$65) resulted from the survey, the average app development costs would be:

- A **simple app** costs about **\$24,830 to \$59,150**, with minimum viable features.
- A **complex app** costs from **\$36,107.5 to \$85,150**, with popular consumer features.

 An advanced app costs about \$59,507.5 to \$137,150, with cutting-edge features.

Of course, these are estimated calculations. And there are many moving parts in the development process. Each of these variables is discussed and accounted for through the following app development cost breakdown.

KEY TAKEAWAY: HOW LONG DOES IT TAKE TO DEVELOP AN APP?

Each of the stages in the development process takes different amounts of time to complete. It usually takes weeks - a ton of brainstorming, to-and-fro communications, development cycles, tests - to build the finished mobile app.

Simple calculations from the survey figures reveal that the average app development time could be:

- Making a simple app takes about 4.5 to 11 weeks, with minimum viable features.
- Making a complex app takes 7 to 16 weeks, with popular consumer features.
- Making an advanced app takes 11.5 to 26 weeks, with cutting-edge features.

The raw figures from the survey were in hours and converted into weeks. For this, standard practices are considered - simultaneous work on 2 development stages at a time and working time of 8 hours a day, 5 days a week.

WHICH FACTORS INFLUENCE THE APP DEVELOPMENT COST?

Generally, the cost of creating a mobile app is not fixed. And it ranges greatly: from several thousand dollars to insanely expensive prices reaching millions.

The basic app cost calculations depend on how much app developers charge per hour.

Based on the survey responses, for **economic app development**, different companies around the globe charge **between \$5 to \$150 an hour, with an average of \$65 an hour**.

While for **high-end app development**, the rates are anywhere **between \$8 to \$300 an hour**, **with an average of \$100 an hour**. The team of developers will ascertain how many hours are required, and the bill is finalized based on the hourly rates.

Yet, the total app cost depends on several elements. Custom made mobile apps come in a variety of scales, designs, utility, and functionalities. Each lot of this variety demands another variety of development efforts. And each one of them influences the average app cost. Noting the various indications by the participants, here are some of the significant factors:



With such a large number of variables at play, mobile app development varies for each project. The following sections discuss some of the factors in detail and give answers to how much an app cost, based on the survey data.

APP DEVELOPMENT COST BY COMPLEXITY

The complexity of the app directly decides much of the time and cost for app development.

User features, app functionality, number of pages, the sophistication of design, and administration requirements - all of these add layers of complexity to the app. And with each layer of complexity, the time and effort required are manifolded.

The participants were asked to approximate the number of hours they require to develop a particular set of features and app administration based on the complexity of the app. Here are the approximate development time and cost required:

Mobile App Complexity	Features Included	Time Taken (in Hrs)	Total Cost For Economic Project (at \$65/Hr)	Total Cost for High-end Project (at \$100/Hr)
Simple App	Basic User Features & App Admin	382 - 910	\$24,830 - \$59,150	\$38,200 - \$91,000
Complex App	Complex + Basic User Features & App Admin	555.5 - 1310	\$36,107.5 - \$85,150	\$55,550 - \$131,000
Advanced App	Advanced + Complex + Basic User Features & Admin	915.5 - 2110	\$59,507.5 - \$137,150	\$91,550 - \$211,000

Creating a Simple App

A simple mobile app comes with a set of basic user features and a limited administration.

User features in such apps include a login system, user profile facility, dashboard, necessary messaging, file uploading, search, and features regarding native devices. Most of these features are bare essentials for a user to make an account, navigate through, and gain adequate information from

the app. While the back-end ability lets an administrator edit app content and handle basic business operations, with a content management system, user management, feedback system, push notifications, ticketing system, etc.

Creating a Complex App

Further, a much more complex app includes a plethora of features for user engagement and app monetization.

Along with simple obligatory features, these apps have activity feeds, social media integrations, e-commerce, payment gateway, audio/video streaming, all device sync, user privacy, etc. They can make use of the device features such as camera, gallery, geo-location, and calling. Developers even get needful administration such as order & cart management, payment management, data collection & analytics, app security, etc.

Creating an Advanced App

These apps are integrated with the latest technology, or even pioneering ones, in the market.

The user features are often laced with features such as augmented reality, multi-language support, high-end data logic, and much more. At the same time, the app administration includes applications of machine learning to enhance user touchpoints such as chatbots.

As you can see, as you move on to more complex features, the cost increase is sizable. For a bootstrapped development, one needs to prioritize features that are necessary and bring initial success.

APP DEVELOPMENT COST BY PLATFORM

The platform impacts the cost of app development in many ways. How much does it cost to make an app for Android, iOS, or hybrid? If you are planning to build an app for any one platform, there is no difference in development cost. But, if you decide to make an app for more than one platform, you need to pay for each individual platform.

Based on the survey, here are the hourly rates (average economic cost - average high-end cost) for developing an app for Android, iOS, and Hybrid:

Platfo	rm	iOS (in \$/Hr)	Android (in \$/Hr)	Corss-Platform (in \$/Hr)
Economic	Range	7 - 150	5 - 150	5 - 150
Project	Avg.	70	70	65
High-End Project	Range	8 - 250	5 - 200	6 - 300
	Avg.	100	100	100

Businesses need to take into consideration factors such as Android and iOS market share, target audience, a variety of devices, OS requirements, app services, and most important - technical implementation. App development

for these platforms need different programming languages, utilize different development tools, and have different APIs.

To enhance the user experience, native apps are to be developed for specific guidelines and devices hardware. And thus, the development of such apps require intensive programming and extensive time.

A rough estimate to how much does it cost to develop an Android or iOS app (\$70 an hour) individually gives:

- A **simple app** would cost around **\$26,740 to \$63,700**.
- A much complex app would cost between \$38,885 and \$91,700.
- An advanced app would cost much higher starting from \$211,785.

Native apps can get expensive if you are developing for both Android and iOS. On the other hand, hybrid apps are slightly cheaper to develop. If the aim of the app is to reach large audiences, cross-platform or hybrid app development is a good choice. A single hybrid app is made to work on a variety of devices, and so only one app is needed to develop.

APP DEVELOPMENT COST BY GEOGRAPHY

The most popular countries for mobile app development are the USA, Canada, South America, the UK, Ukraine, India, Southeast Asia, and Australia. And the hourly rates charged by app developers vary significantly among these countries.

Thus, the location of the mobile app developers also shapes the overall cost of developing an app. You should consider the location wisely according to the available budget for app creation, and vice versa.

Based on the survey, here's the map indicating app developer's hourly rates (average economic cost - average high-end cost) in different countries:

Region	ios	Android	Cross-Platform
	(Avg. \$/Hr)	(Avg. \$/Hr)	(Avg. \$/Hr)
Canada	90 - 130	100 - 130	90 - 130
The USA	110 - 150	100 - 150	100 - 150
Latin America	40 - 50	35 - 50	35 - 50
The UK	60 - 75	60 - 75	55 - 75
Europe	35 - 55	35 - 55	30 - 50
Ukraine	30 - 35	30 - 35	30 - 35
South Africa	45 - 80	40 - 80	40 - 80
India	20 - 30	15 - 25	20 - 30
Southeast Asia	35 - 45	30 - 45	30 - 45
Asia	25 - 35	20 - 30	25 - 35
Australia	90 - 120	100 - 120	90 - 120

Evidently, with \$100 to \$150 per hour, an average American app developer charges the highest. App developers from Canada and Australia charge slightly less - about \$90 to \$130 per hour. Hence, development costs are the most expensive in these regions.

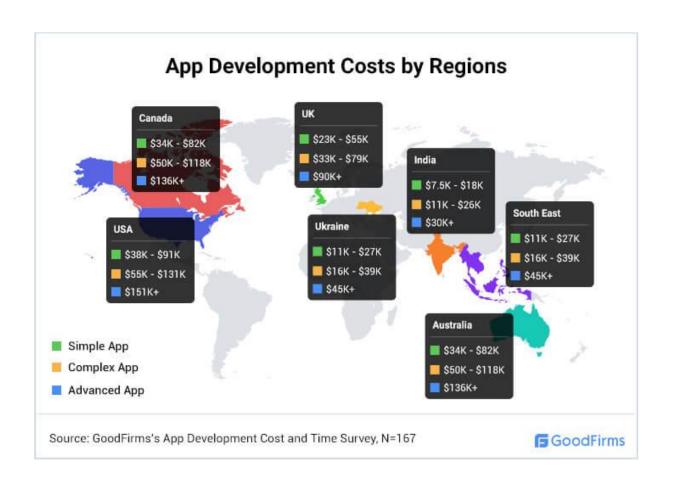
On the other hand, app development cost in most European and South Asian countries is usually less than \$50/hour. Among these regions, India (\$20 - \$35 per hour), Ukraine (\$30 - \$35 per hour), and Southeast Countries (\$30 - \$40 per hour) are quite famous for cheap and reliable app development.

Generally, prices do not necessarily guarantee the quality of your app development. Sometimes, cheap development costs may save you money, while expensive costs are for the name of the company.

So, how much does it cost to make an app in these regions?

Typically, the average development cost in the USA would be around \$38,200 to \$91,000 for a simple app. A complex app with much-needed features would cost \$55,550 to \$131,000 in the States. Whereas, the cost of an advanced app laced with the latest technology would go beyond \$151,275.

Similarly, the app development cost in Australia and Canada for a simple mobile application would be \$34,380 to \$81,900. The cost of developing a complex app would be \$49,995 to \$117,900. And an advanced app would cost anywhere from \$136,148 in Canada or Australia.

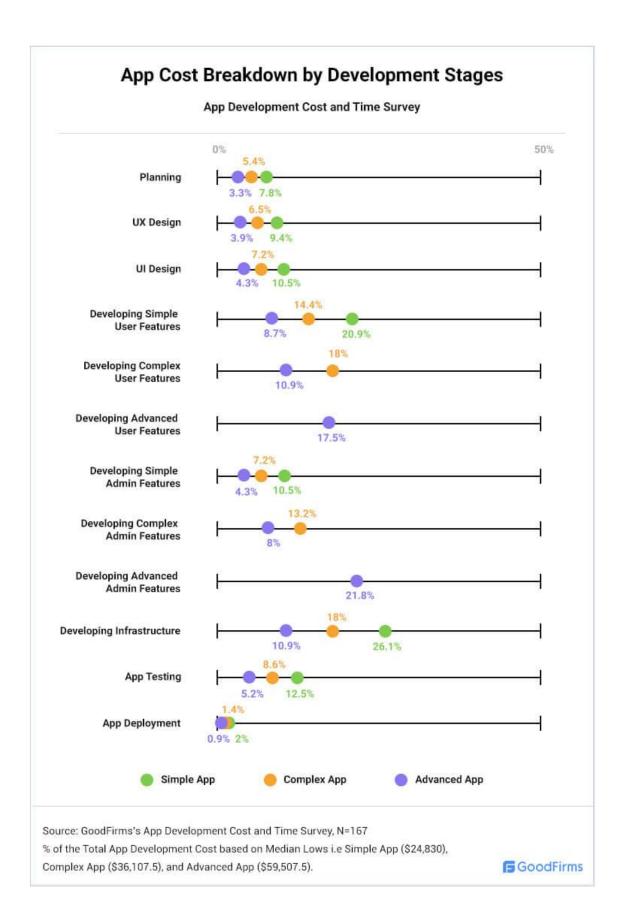


How much does it cost to make an app in India? With \$20 per hour for creating an app, the cost of building a simple app in India ranges between \$7,640 and \$18,200. The development of a complex app would cost \$11,110 to \$26,200, and that of an advanced level app could cost at least \$30,255. While these are the rates for iOS and cross-platform apps, Android apps come even cheaper.

If you want to get your app developed in Ukraine, developers charge \$30 per hour for a commercial project. Hence, the cost of building a simple app in Ukraine would be around \$11,460 to \$27,300 for a simple app. For complex apps, the development cost would be anywhere between \$16,665 to \$39,300. Whereas, an advanced level app could cost at least \$45,383 in Ukraine.

The costs are calculated with the average economic app developments mentioned by the surveyed companies. It's important to note that most common delusions, such as 'high price does or young companies do not yield high-quality products,' may result in overspending or app failure.

APP DEVELOPMENT COST BREAKDOWN BY STAGES



Cost of App Development Planning

For most companies, app development planning is an indispensable part of the process. The intent is to clearly understand each aspect of the mobile app they're going to develop. In a way, planning the outline of the entire project avoids costly changes to the scope of the project.

As specified by the participants, the planning phase includes, but not limited to -

- Market Research & Business Analysis
- Identifying Requirements
- Defining the Scope of the Project
- Deciding App Features & Goals
- Deciding on the Tech Stack
- Planning out Time & Expenditures

How much does it cost to make an app strategy? Typically, app development planning goes for 30 to 80 hours, while a much-demanding app can even require upto 250 hours. App strategy, calculating based on average hourly rates (\$65/hour), could cost anywhere from \$1,950 to \$5,200 and can go as high as \$16,250.

Planning times largely depend on the client and the app's complexity. **Jes Herman**, President of Canada-based Oracast, explains, "Some clients are happy with what we produce right out of the gate. However, other clients are a little pickier and require multiple design revisions. Additionally, there is a small group of customers that think they know what they want but end up changing their minds multiple times throughout the planning phase, which can extend or delay a project."

Often, findings of the planning phase are well documented to guide clients as well as the whole development team throughout the other development stages.

Cost of Designing an App

Mobile apps need designing not just for how it looks, but also for how it works. Thus, most development companies include dedicated efforts for researching and designing user experience too. In the development app, UI designing deals more with the presentation of the app.

App UX designing costs include:

- User Research & Analysis
- Information Architecture
- App Navigation
- Wireframing

According to the participating companies, it takes about a median **36 to 80** hours (or upto **300 hours**) to design an app's user experience. And thus it can cost between **\$2,340 and \$5,200**, with expenses reaching upto **\$19,500** for highly user optimized designs.

App UI designing costs include:

- Brand Styles Logos, Icons, Colors
- App Interface Visuals, Content
- Rendered designs
- Final Design/Prototype

For designing the user interface of an app, it takes around **40 to 100 median hours, or upto 409 hours** for superlative visuals. With the average development cost, it translates into designing expenses of **\$2,600 to \$6,500 and can go upto \$26,585**. Most participants vocalized that UX designing is a continuous process and depends largely on branding, business goals and needs, project complexity, number of screens, and functionalities.

Deepu Prakash, Senior Vice President of Fingent, described, "Often, for complex projects these stages are iterative. For products, these stages iterate through the lifecycle of a project and there is no maximum limit. The numbers vary greatly based on the target market and business model. For instance, a simple app used by one department within a corporate environment may complete this stage way faster, than say a B2C commercial multiplayer game designed for a gaming firm."

App design includes both UI and UX. And overall, it influences the whole process of building an app. The more intricate the app design, the more costly your mobile application becomes.

Cost of Developing App User Features

As said before, the app complexity decides much of the time and cost for app development. The user features that are to be developed contributes much to the complexity of the app. And so, no definite answer can be given until a set of features have been decided to develop.

Thus, to have a top-level perspective, the app makers were asked to roughly provide the time taken to develop three sets of user features - Simple, Complex, Advanced. Each set included some of the most popular users features the majority of apps normally have.

The following table will show an approximate app development time and cost for each set from simper features to advanced features of user functionality:

Complexity	Included Features	Time To Develop	Cost To Develop (\$65/Hr)
Simple User Features	 Login (Email/Social Media) User Profile (Make & Edit) Chat/Messaging File uploading Dashboard Search Native Device Features 	80 to 160 Hrs	\$5,200 to \$10,400
Complex User Features	 User Engagement (Social Media, Email, SMS, etc) Activity feed Camera/Gallery E-commerce - Catalogs, Ordering, Shopping Carts, etc Geo-Location One-click contacting Payment Integration QR/Barcode Scanner Integration Stream Audio/Video Sync across all devices User Privacy Setting 	100 to 240 Hrs	\$6,500 to \$15,600

Advance	•	160 to 400	\$10,400 to
User	Augmented Reality	Hrs	\$26,000
Features	CustomizationMulti-language support		

The numbers presented are aimed to get a general understanding of an average app development cost. In fact, a single app would include multiple features and not necessarily from the same set, or even complexity, as mentioned above.

Suprit Patra, Co-Founder of Indian development firm Gleecus, explains, "Sometimes, a simple feature like Login can be quite complex if you are planning to build an SSO, AD, LDAP integration or use OpenID based authentication and authorization. Allied scenarios like multi-device session management and security-based features might add to the hours as well."

Simply put, even a single feature can get complex depending on the app requirement and add cost to the development. Each of these features costs individually to develop. Thus, the total app cost actually depends on the exact functionalities to be included and its nature.

Cost of Developing App Administration

An admin panel adds further complexity to the app and is one of the most decisive elements in the success of a commercial app. Most of the features on the panel are related to managing either app content or users. These are aimed to better market the services or the products, and monetize the app.

To have another top-level perspective, the app makers were asked to roughly provide the time taken to develop three sets of administration features -

Simple, Complex, Advanced. Each set included some of the most popular admin features the majority of apps normally have.

The following table will show an approximate app development time and cost for each set from simper features to advanced features of the admin panel:

Complexity	Included Features	Time To Develop	Cost To Develop
			(\$65/Hr)
Simple Admin Features	 Content Management System User Management Feedback system Push Notifications Ticketing System 	40 to 100 Hrs	\$2,600 to \$6,500
Complex Admin Features	 Payment Management Order Management Data Collection & Analytics App Security 	73.5 to 160 Hrs	\$4,777.5 to \$10,400
Advance Admin Features	Machine LearningConversational Bots	200 to 400 Hrs	\$13,000 to \$26,000

These features provide apposite controls at the app content, user data, and app functionalities, that enables app owners not only to manage & analyze the app data but also to make essential business operations possible.

Most pieces of app administration are available as SaaS products, or even previously developed, reusable components with the developing firm. "Sometimes it depends on third party portals like payment gateways, analytics, etc. which contributes to calculating the hours.", explains **Yulia Garanok**, business development manager at Canadian development firm - datarockets, "And other times, reusable components, SaaS services, and prior experience can significantly reduce the effort required to create and deploy sophisticated features."

These kinds of available facilities can offer much-needed cost savings on the most expensive development stage.

Cost of Developing App Infrastructure

The technology, flexibility, scale, services, and all the other technical choices that a mobile app demands are facilitated solely by its infrastructure. And thus, developing the app infrastructure demands one of the largest portions from the development cost, third only to the advanced user and admin features.

The following are the minimum necessary elements of the app infrastructure, for which the developing costs are based.

- Database Setup
- Data Storage Solutions
- 3rd Party API Integrations
- Data Encryption & App Security
- App Scalability

For this set of infrastructure, companies generally **take 100 to 240 hours to develop**, **the highest recorded time being 3000 hours**. Calculating with the average developing cost of \$65/hour, the cost of infrastructure would be anywhere **between \$6,500 to \$15,600**, and could go as high as \$195,000 for a single app.

Participant **Pablo Lecea**, Director of Technical Consulting at California-based Belatrix Software, noted, "It is worth considering the time and efforts you should assign to develop the business rules, the logic layer of app infrastructure, and the APIs to consume them. These are some of the most expensive bits of app development and the ones that demand the best optimization."

As mentioned by several other participants, there are two goals while working on infrastructure development. One, to develop an app for the uncertain future by building a flexible, pluggable, microservices-focused method. Two, to work towards a continuous development and deployment process.

Cost of App Testing

Rigorous testing of the mobile app ensures the quality of the software and functionality of the features. It comforts users with a seamless app experience without UI walls, bugs, glitches, or crashes.

The amount of time and cost required depends on the types of testing procedures, the purpose of the app, its complexity, required quality, as well as the number of screens.

According to the participants, testing of the mobile app includes, but not limited to -

- Quality Assurance
- User Experience Testing

- Functional Testing
- Performance Testing
- Security Testing
- Device and Platform Testing

For simple apps, a few basics are run and thus require less time. But for complex apps such as social media, interactive games, financial, or educational demands additional testing time and cost.

"We calculate a project's testing hours based on a percentage," stated **Justin Evans**, business development executive at California-based Mob Inspire, "so that it scales appropriately with different sized projects. It's quite accurate; however, test cycles can last longer depending on client/stakeholder availability for beta test cycles."

In the same way, many other companies conduct testing as an iterative process and thus allows a certain percentage of the total mobile app development time to it. As stated, most companies take **around 48 to 130 hours and can reach upto 480 hours** for premium testing. So, how much does it cost to test an app? Based on the average cost of \$65 per hour, testing and QA services require anywhere **from \$3,120 to \$8,450 and may reach upto \$31,200**.

An in-depth testing process assures that app users would face minimal issues such as glitches or crashes.

Cost of App Deployment and Publishing

Publishing an app to the app store requires the least time, yet it is a crucial moment. The process is detailed, requires a dozen information on the app, and directly impacts the success of the release. Apple App Store charges an annual developer fee of \$99, and Google Play Store charges a one-time developer fee of \$25 to publish a mobile application. But there is much

administration and optimization at work than just uploading the app to the store.

So, how much does it actually cost to put an app on the app store? Different platforms require different preparations, rule compliances, marketing, as well as review times. An average development firm usually **takes 8 to 20 hours or 50 maximum hours** to fulfill these administrative steps, terms, and conditions. Calculating the average app cost of \$65 per hour, it cost **around \$520 to \$1300**, **or a maximum of \$3250** to put an app on the app store.

"Submitting app doesn't take long", **Soumadeep Chatterjee**, a business intelligence specialist at Vipra Business Consulting Services Pvt. Ltd mentioned, "but both the Apple Store and Play Store have a review TAT of 72 working hours. So even after submitting you might need to wait for the app store team to review and make the app live. Additionally, upon rejection of Application, it could be doubled or tripled."

But Soumadeep and many others on the survey mentioned that the app publishing cost is not subjected to these time changes, and most companies charge a fixed amount for the whole process.

Cost of App Maintenance & Support

Often overlooked, support & maintenance demands ample investment to sustain and thrill through the dynamics of the app business. And most development firms incorporate a maintenance cost (for some period) into the contract.

Some of the support & maintenance activities that participants included are as follows:

- Infrastructure & 3rd Party APIs charges
- Continuous bug fixing & app updates
- Code optimization

- App stability and performance
- Emergency Maintenance
- Scaling up the app
- Developing new features
- Updating for the latest OS versions

That's why the association with your tech partner doesn't stop right away from the app launch. Often it's a continuous process and lasts much longer. Usually, companies charge an average of **25% of the development cost per year**. That means, if a complex app costs \$85,150 to develop, it can be estimated that the app maintenance will cost around \$21,287.5 a year.

Developing new features or software scaling is not included, and may drive up the costs of maintaining an app. "Support & mobile maintenance by itself isn't very much", added **Shaun Murphy** of New York-based AppsChopper, "however adding new features or additional phases to an app project can greatly increase the percentage of overall app revenue. But even if you have no plans for them, other app support and maintenance services are indispensable."

CONCLUSION

The data and insights presented above give a rough, standardized idea into the time and cost of making an app, as mentioned by 167 leading development firms. The next step in the app affair is to look out for some of the best app development companies, evaluate them on several aspects, and pick the one that suits your business and its requirements.

GoodFirms presents you with a precise platform for all your app development market research and queries. Here is the list of GoodFirms researched and client-approved top Mobile App Development Companies that would come in handy in your efforts. And if you already have a set of specifics decided and looking for elaborate categories, you can even look into directories of app development companies based on their locations, platform expertise, or industry focus.

ABOUT GOODFIRM'S MOBILE APP DEVELOPMENT COST AND TIME SURVEY:

GoodFirms surveyed 167 mobile app development companies across the world to study prevailing project costs and time frames. Firms from diverse socio-economic geographies such as the United States (27.54%), Canada (14.37%), Australia (12.57%), India (7.19%), Ukraine (5.99%), the United Kingdom (5.99%), Malaysia (2.40%), Uruguay (2.40%), Belarus (1.80%), Poland (1.80%), and Others (17.97%) have contributed to the survey.

The survey surmised data from all three of the small, medium, and large business: 13.77% of small firms with 2-9 employees, 56.29% of small firms with 10-49 employees, 22.16% of medium firms with 50-249, 6.59% of large firms with 250-999 employees, and 1.20% of large firms with employees more than 1000 employees.

Here is the full list of Research Partners, who participated in the survey and provided thorough perspectives for the research.