

Proposal For Savvyparent Technologies App Development



www.karmicksolutions.com

Company Profile:

Karmick Solutions Pvt. Ltd. is an ISO 9001:2015 certified IT consulting company based in Kolkata, India with experience of 23+ years. We provide solutions in Web Design and Development, Mobile Apps Development and Digital Marketing across various industry verticals like Manufacturing, Mining, Travel & hospitality, Education, e-Governance etc. with clientele including enterprise clients, emerging start-ups, Government agencies and digital agencies, spread across 36 countries worldwide.

We had started with the motto of building relationships, and not just building applications. Our goal is to understand client's business, their vision and mission and align ourselves to those. This has helped us win our client's trust and also not only to remain profitable from year one of our business but also have helped us with steady business and customer acquisitions even during economic recessions that had hit the IT industry worldwide.

With an in-house team of around 150+ PHP Developers, Mobile Application Developers, Designers, SEO/SMO Professionals and Content Writers spread over 2 development units in Kolkata and with office in Largo, Maryland, US, we make use of the latest web design and development technology that meets your digital requirements.

Led by a strong management team, we ensure the quality of development by having in place a standard set of QA process for every project that we undertake. The work process involves QA at every stage of development before it passes to the client thereby ensuring quality works reaching the client which accordingly ensures 100% client satisfaction.

Our Advantages:

- ❖ End to End Solution provider for IT projects – Branding, Website Development, Mobile Application Development, and Digital Marketing. We work in DESIGN, BUILD, DEPLOY, SCALE, MAINTAIN mode thereby providing a one stop solution centre to our clients.
- ❖ Tech Skills – We always try to innovate and always intend to remain updated with the latest technology trends. We have skillset in not only Cloud technology but also IoT, Artificial Intelligence which gives us an edge over our competitors.
- ❖ We have a strong Information Security Management System in place. Protected Data Centre, authorized entry to the workstations, Firewalls to protect from any threats. Security audits are done to ensure our customer data is secure and protected from any unauthorized access.
- ❖ Client centric approach – aligning ourselves to client’s business goals. Our ultimate goal is to provide perfect value to the customer through a perfect value creation process that has near to zero waste.
- ❖ We reach out to our clients. We visit our clients in US, Europe, Middle East, and Africa in person. We believe in building relationships.
- ❖ The team speaks English – So communication is seamless with any client throughout the world. Communication is the key – so the team is available via Skype/Email/WhatsApp almost 24/7.

- ❖ Team works using AGILE. Daily SCRUMs and Weekly Sprints keep the deviation minimal. We use Project Management tools for effective Project management and communication. Bug Tracking tool is used to ensure bugs are reported and taken care of ensuring quality of delivery. Our delivery process takes care of the CMMi rules and makes sure of better work quality and better delivery to our clients.
- ❖ We provide with a Success Manager - a member from our senior management. You'll be able to contact them on Hangout, Skype, WhatsApp, etc. The fact is, things don't always go according to plan. Anyone can make a mistake. The question is how fast we can offer a resolution.
- ❖ Multiple delivery centres and disaster recovery system ensures that your business continues to run smoothly in difficult times.
- ❖ We talk straight. We give you honest advice based on logic and experience, with your best interest in mind. This is what has made us what we are today.
- ❖ 80% or more of our business comes from repeat business or client references. Do we need to say more?
- ❖ Some of our clients prefer to work with a US company. Karmick Solutions Inc. is a US company registered under US laws. We can work under US laws should our client prefer to do that.
- ❖ We take pride in our work. We offer post-delivery support for our projects. So our clients are safe and relaxed.

Background

With more and more exposure of digital media for the children it has become apparent that care has to be ensured to moderate the usage of media for the children to make it to their best advantage.

In the current social and economic scenario that we have in India, it is clear that one will not be able to keep children and teenagers away from ICT devices such as Mobiles, Tabs, Smart TVs, and et al; these devices are going to get more and more embedded into the various educational and other developmental requirements that a child has.

As we cannot keep the devices away from the children, it is imperative that we develop a robust control mechanism, ensuring that; firstly, children do not consume any age inappropriate material, secondly, are not coming in contact with any person with malicious intent, and thirdly are keeping the device secure to ensure that no one is misusing the child's device.

Currently, the parents have limited tech solutions that can cater for the above mentioned risks and are dependent on physically checking the child's phone or accepting their word on the same. Parents not only do not have a clarity on the thresholds that should be set for their children, but also do not know how other children are faring. Every parent applies their judgment to decide when they should intervene and do not have adequate data points to take these decisions.

In addition to the parents, even schools are adjusting to this new normal and are working to figure out the correct policies and methodologies that they should adopt in these changing times. Educational institutions are further facing a disruption from the ed tech industry, who are now providing curated content for the entire curriculum; ed tech is a substitute for schools and have provided the parents with an alternate source from where they can benefit. Currently, schools do not have adequate visibility into how reliant their students are on ed tech, which ed tech firms are the most prominent among their students, how are they performing vis a vis their competition in their city/ country.

Our application is intended for the parents to allow them to remotely monitor and control their children's online activities; the parents can do these two activities directly from their mobile devices. Our application will allow the parents to remotely set limits on the type of content that a child can access through their mobile device; the app will further allow the parents to set screen time and other limits on their child's device directly from the parent's device. Under monitoring, the parent will be able to get detailed analytics on how the child is spending their time on their devices; we will also provide detailed analysis on the child's behavior based on the

location based data that we can garner from their child's device.

For the schools, we will use the aggregate data of their students to tell them the extent to which their children are reliant on ed tech, the ed tech platforms that are prominent among different age groups, provide comparative analysis on ed tech penetration as well as online behavior vis a vis their competition. For the schools, we will place our product as the market analysis product that provides behavioral insights of children belonging to their school as well as the local competitor's.

Scope of work

The scope of work encompasses development of a mobile app for Android to provide parents a way to keep a check on how their children is using their phone and also implement some rules on how they should be using the phone.

The application involves not only development of the Mobile app for the parents and children but also a web administration which would be used by the administrator to view different metrics.

The school representatives will have access to the web version to upload their student info as well as view how the school children are using the Edu tech apps or other apps to view the usage pattern of children and other key metrics of students of their schools.

The detailed feature of the application – web and mobile app will follow the product specification document as shared with Karmick Solutions Pvt Ltd which are mentioned below. The product specification document that was shared will also serve as a guideline for detailed note, if needed.

The Mobile App would be developed for the following user types

- a. Children who would be using the phone for a variety of reasons
- b. Parents who will moderate the usage, view how their child is using the phone

The web application will be developed for the following user types

- a. Web/App Administrator or App owner
- b. School Representatives

The user flow will be as follows

Mobile App

Child:

1. The application will be installed in the device
2. The child will log in. Once the child logs in, he/she will remain auto logged in.
3. The child will see that the app is running on their device
4. The child will be able to tap on a SOS button in case of any emergency
5. The child will receive push notification when a time limit for a specific app is over for that day. The child however may request the parent to allot additional time for that app for the day.

Parent:

1. The parent installs the app in his/her device from the link shared to them
2. The parent taps on the app icon in their device
3. The splash screen comes up and makes way to the screen where they are prompted if they are installing the app for the parent or for the child.
4. Shall the user mention its for a child, they would be prompted to install the parent app first and then the child app.
5. On selecting the option of parent app, the user is prompted to login.
6. Users will select if they are a new user or an existing user. New users will have to enter the secret code shared with them by the App owners to verify prior to login.
7. On entering the code, the info of the parent along with their child details show up and parent has to confirm to proceed to the Parent dashboard.
8. On successful login the parent views the Parental Dashboard
9. The dashboard has the child Name selected on top with more info of the child and

analytics info.

10. After first time login, parent is notified to install the Child App and set the usage rules right away.
11. While installing the Child app as well in the Child's device, the parent has to enter a code. This code can be viewed in the parent App next to the Child info after their first login. Once the child app is setup, the code does not come up again.
12. If the parent has multiple child who is from same school, they can add their child.
13. The parent can set up the rules of Childs usage of their device. This rule engine entitles the parent to set the app usage rules – like for example WhatsApp usage for 1 hour, FaceBook usage for 1.5 hours, Edu Tech Apps for 2 hours, etc. The usage rules can be set daywise like Monday, Wednesday and Friday a set of rules and other days a set of rules.
14. The parent can change the rules as many times as they want
15. The parent can set the notification rules – so as when they would be notified – like if the child is overusing any app beyond the duration setup in the rules, if the child is going beyond a zone from school, when the child is entering school or leaving school, etc.
16. The parent will be able to reach out to app support for any help needed. The parent will have to select the category of support and on selecting the category they would be prompted a list of topics. On selection of the topic, the common questions asked/FAQ on that topic would be shown to parent for clarification. If the parent does not find the necessary details they would be prompted to post their query using a form and would be responded by the app support via phone/email as needed. The parent has to be logged in to post a support query.
17. The parent can update their personal profile (except parent code, name) as well as profile of the child (except student code, name, school, class, section). To proceed with the same, the parent has to enter a verification code that would be sent to their registered email to confirm their identification.
18. The parent dashboard will have tiled view of the following – Child list (for multiple child) and on tapping of a child block it will expand to show the analytics info like Total Usage (Time in hours), App Usage and Different Metrics like Usage vis-a-vis other children with graphical charts, etc.
19. There will be a hamburger menu clicking on which the parent can view the following
 - a. Personal Profile
 - b. Child Info
 - c. Rules Engine
 - d. Analytics

e. Reports

20. The parent can tap on Analytics and will see

- a. What was the total time that was spent by the child on mobile
- b. Applications installed in the Child's device
- c. Apps deleted in a specific time period (day/week/month)
- d. Installed apps having higher age recommendation
- e. Installed apps which are set as inappropriate in the rules engine
- f. Categories of Apps installed – with count with option of the user to view apps installed under each category.
- g. Apps not having security certificate (Count with option to list)
- h. How many times was the phone unlocked/ used between a time period (9 am - 7pm)
- i. The frequency of usage
- j. Day-wise Hourly Breakup
- k. App-wise hourly breakup
- l. Total Call usage

21. Reports (Comparison with child vis-s-vis other children of same age group)

- a. Average app usage
- b. Edu tech app usage
- c. Social Media usage

22. Security Tracker

- a. Locations where child was present for more than 30 minutes over a time period – day/week/month
- b. Most frequent location over a time period – day/week/month
- c. Childs location outside the city (Will show in red in such scenario) with option to view details of the location with time
- d. Location of child at a specific time in a day
- e. Parent will be able to view if the child has switched off location services with option to view day/date/time
- f. Child's visit outside permissible area (parent defined) within a time period.

- g. Child entering school and leaving school (subject to if they are beyond a certain distance from the central location of school)
- h. Parent can tap to view details of when (day/date/time) the child was there along with time span.

Web Administration:

- a. Administration can login to the web admin. Administrator will be using their userid and password to login.
- b. Administrator can manage access control for other admins
- c. Administrator can create roles and assign roles to other admins
- d. Administrator can manage subscription packages
- e. Administrator can manage schools
- f. Administrator can upload student and their parent info from the school spreadsheet if the school is facing any issue. The upload will be the responsibility of the school user.
- g. Administrator can manage App categories
- h. Administrator can manage school subscriptions and can view list of schools subscribing to the app along with their subscription package and renewal date, etc.
- i. Administrator will be able to view children using the app. However no individual details of the child would be visible to the administrator except the unique code of the child in the system.
- j. Administrator will be able to view the behavioral pattern of children. This is more of a generic view of how children are viewing the apps. No individual details of any child is viewable to the administrator.
- k. Administrator will be able to view report – generic view of all children's device usage to track how children of a specific city may be using the smart device.
- l. Administrator will be able to view graphical charts for student's app usage for different parameters.

School View:

- a. School staff can login to the school web portal. School staff will be using their userid and

password to login.

- b. School staff can be Principal/Management Staff, Teachers or Admin Staff.
- c. Based on schools the Admin will provide the usage rights of the members of the school.
- d. Principal can view graphical report and/or analytics data of Ed Tech usage, App usage pattern of students of different age groups on their school.
- e. Teachers will be able to view graphical report and/or analytics data of Ed Tech usage, App usage pattern of students of different age groups on their class.
- f. Admin staff will usually be assigned roles of adding teachers who would be using the application and uploading the parents and children info in the system. They can use a spreadsheet to upload the same. A sample spreadsheet will be provided which will show how the data in the spreadsheet will be arranged,
- g. Principal/Management Staff/Admin Staff would be able to view how the teachers are using the platform.
- h. Principal/Management Staff/Admin Staff would be able to view their subscription package and renewal date.

Technology

Android App (Native Android App)

Android: KOTLIN

Web Administration + REST API – PHP (LARAVEL MVC Framework)

Communication Process Plan

To deliver the application the Karmick Solutions will follow the below mentioned standard laid down process to deliver the project:

Having effective Communication To have an efficient Project management process in place, Karmick Solutions suggests using of an online project management tool which will help all stakeholders to effectively manage the project.

In parallel to ensure seamless communication, authorized personnel can use the following:

- a. Emails
- b. Skype Communication
- c. Phone/WhatsApp

Methodology

Over many years of industry experience, Karmick Solutions Pvt. Ltd. has developed a methodology that applies to all projects regardless of size, length, and type of service. This continuous process, namely our development life cycle, begins with learning your goals and ends with far exceeding them resulting in the success of your new website & mobile app project.



Step 1: Discover

The first step is to discover and define the exact needs and goals. Karmick Solutions will identify the exact needs so the project is delivered as per your exact needs.

The discovery phase clearly states the problem, and contains all of the information needed to design a solution to the problem. The SRS and detailed FRS will be prepared in this stage of the project.



Objective: Goal Identification

Step 2: Design

After we've completed the discovery phase, we come to the design phase. Keeping in mind all your goals and priorities we will begin to design graphic and layout samples.



The navigation structure is one of the main focuses here as well for it must be highly optimized and quick and easy for your visitors to browse. The aesthetic designers start designing the web pages and mobile app screens for client review.

When the client is satisfied with the proposed "look and feel," we then move forward with development.

Objective: UI Finalization

Step 3: Develop

In the development phase, the mobile app screens will be sliced and integrated with the web API. Great attention to detail is given and we utilize standard conventions for good programming style.



Functional beta versions of the app are created and every aspect of it is tested thoroughly before posting them to the development server for review of client. Clients/designated member will watch the progress of their development and may participate in testing. The development team will share link/installation file and client can check the progress from time to time. In this phase the following is done

- Work broken up into modules with tentative time-frame attached to each task.
- Development along with Weekly demo
- Feedback Collection on the works done
- The work done in the subsequent week involves the work on feedback collected and new work.
- QA Process at every stage (involves manual testing, regression with test cases and test plan)
- Integration testing once a deliverable is to be delivered.

Objective: Making Site ready for uploading to server

Step 4: Training & Deployment

The final stage is training and deployment. Once it is demonstrated that the mobile app functions as desired and outlined in our agreed upon proposal, it will be handed over to client subject to sign off. Karmick Solutions team will be having training sessions with authorized representatives prior to go-live so authorized personnel who will take up the go live process.

Objective: App available to all users.



Step 5: Maintain

Maintenance will be provided for 2 months with developer providing support and making fixes for any bugs coming out because of work developed by Karmick.

Objective: Maintenance and Support



Timeframe & Cost:

Web Maintenance

Timeframe:

Corporate office

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The web administration and Android App development will happen in parallel.

Web Administration: 2 Months

API Development: 3 weeks

Android App: 4 Months

Cost:

Web Administration + API: INR 2.4 Lakhs

Android App: INR 4.5 Lakhs

Total: INR 6 Lakh 90 thousand only + GST (18%)

Note: The cost involves QA of the application as well.

Payment Milestones:

Payment Milestone	Payment
Project Initiation Advance	INR 1,38,000 + GST (18%)
Completion of 30% of Work (Milestones mutually agreed upon)	INR 1,38,000 + GST (18%)
Completion of 70% of Work (Milestones mutually agreed upon)	INR 2,07,000 + GST (18%)
On completion of the Work (On UAT completion)	INR 2,07,000 + GST (18%)
Go Live	0

Note: On completion of payment and sign off, the source code will be handed over to client and the client will own the full intellectual rights over the code.