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# Child Tracking System through Android Application

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**ABSTRACT:** All over the world crime on children is increasing at higher rates and it is high time to offer safety support system for the children going to schools. This paper focuses on implementing child tracking system for their safety. The proposed system includes the tracking of kids by the use of Google API. It will also monitor their activities on their mobile phones.

**KEYWORDS:** Child tracking, Global Positioning System, mobile phones, etc.

## I. INTRODUCTION

World is massively moving towards technology and in this race all the people around the globe are busy in their own work, jobs and professional life, but they always get worried and scared about their children due to misuse of Information Technology and the country's law and order situation. So, parents wanted to track and monitor their child's activities and location from anywhere to resolve their pressure but it is practically not possible for parents to physically keep track of their kids and monitor their actions. A study on few existing tracking systems have been done to gather the information and existing problem. This paper puts forth a system that will help parents monitor their child activities from anywhere using a mobile phone to solve the problem. The system is mainly based on the use of the Global Positioning System (GPS) to get the child's location. This android app also uses mobile services to secretly store all the call logs, short message service (SMS) logs, contact lists, and accurate locations without knowing the children.

## II. RELATED WORK

In 2025, the number of mobile users worldwide is predictable to reach 7.49 billion. [1]. According to another studies, there were 658.0 million internet users in India in January 2022. Kepios analysis indicates that internet users in India increased by 34 million (+5.4 percent) [2] between 2021 and 2022. India's internet penetration rate stood at 47.0 percent of the total population at the start of 2022. With increasing number of internet users, the number of digital crimes is increased. In order to protect our child from these circumstances, so proposed in project.

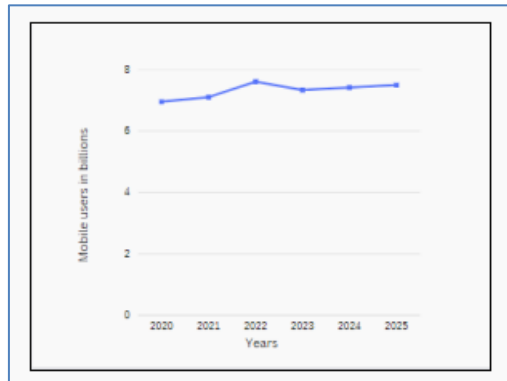


Fig- 1. Forecast number of mobile users worldwide by Statista(website)

Nelson Mandela had once said “Our children are our greatest treasure. They are our future, those who abuse them tear at the fabric of our society and weaken our nation.” This generation kids are tech-oriented so they very well known with the electronic gadgets and mobile phones. But this can affect their mental as well as physical growth if misused. So, there must be a tracker to keep a watch on their actions. The research has been given more focus on parental control over children's mobile devices.

The following are the problems that are to be solved or try reducing with the help of the child tracking mobile application:

1. Increased rate of child kidnapping.
2. In 2021, the registered kidnapping and abduction cases accounted to over 101 thousand cases across India. Kidnapping and missing cases addressed to about three percent of the crimes reported beneath the Indian Penal Code.
3. Increasing Digital frauds and crimes.
4. The facilities of computer technology also has some drawbacks. Though it makes the life so speedy and fast, but it is also a root cause of online frauds.
5. Lack of resources to nurture the kid's childhood.
6. The parent is hardly able to keep a watch on their child without the use of technology, especially when the child is in the outdoor away from them.
7. 4. Limited application for child monitoring.
8. There are very few applications present for tracking child when they are out of parents control and let kidnapping or missing cases occurred.

The objectives of developing this system were:

- 1) To reduce child kidnapping cases through introducing the tracking system.
  - For parent it is not always possible to stay beside of children as most of the parents needs to go for work. With this child tracking system, parents can track the location of their children easily.
- 2) To propose tracking technology for child tracking system using GPS/ Google API.
  - Building a tracking tool where it allows determining the exact location (longitude and latitude) of the children. The technology grants parents to track child whereabouts.
- 3) To create Child Tracking System.
  - Parent can keep track their children movement when they were at outdoor and also current location of the child.

### III. METHODOLOGY

In our proposed system, we focus on the security of a child. This system is consisting two sides: child and parent. The main aim of this system helps parents to observe their children's activities from anywhere. Smart-phone with children to track their activities. Developed android app is for a mobile device that provides various services to parents. In the children's mobile phone, there is an android application, from which parents can get data where their children are going, whom they are calling and messaging through mobile phone.

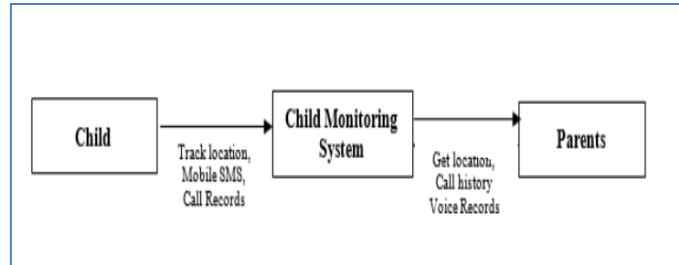


Fig- 2. Block diagram

Figure 3 shows the application process flow using flow symbols, where a user has to login into the system. If the user logs in as a child, the user can access the application, browse different websites, watch videos through YouTube, and call any person, but all the information will be stored in the database hidden from children. At parent end they can view the child's activities.

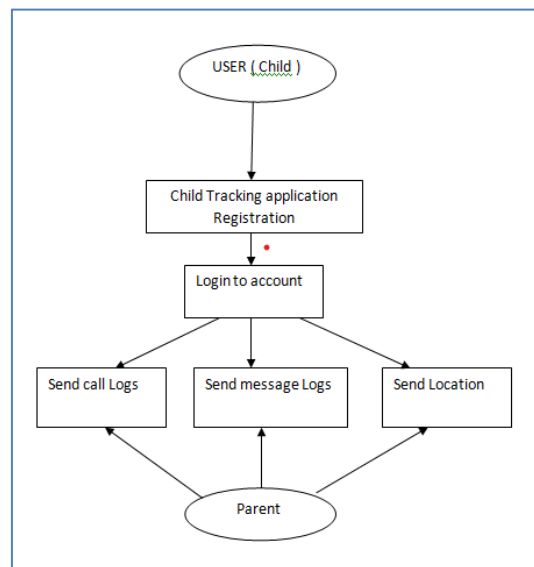
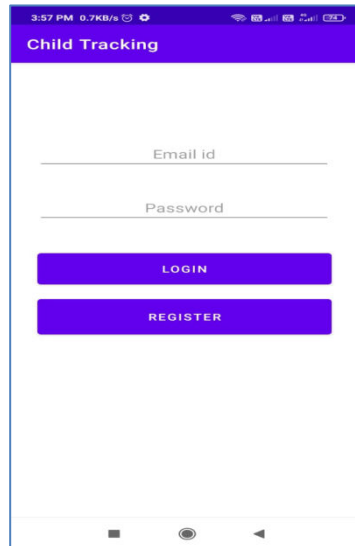


FIG- 3. FLOWCHART FOR CHILD TRACKING APPLICATION

#### IV. EXPERIMENTAL RESULTS

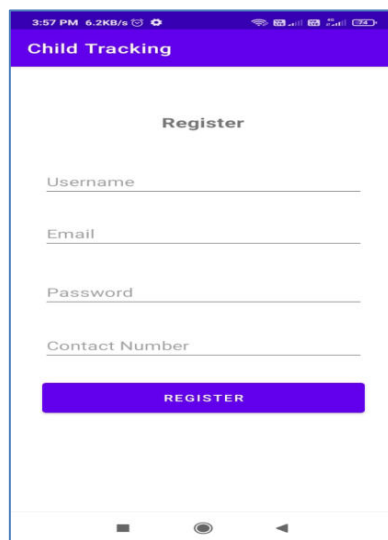
Steps to be followed:

1. At first, running this app needs registration, then log in.
2. To sign up for the system a child must have to use email and password.
3. Parent has to open their mail to receive mails on their smart-phone about call logs, message logs and their child's location.
4. Child must open the application as he/she clicks volume up button all SMS history, volume down button for call log history and the share location button for share location via mail to the parent.



**Figure 4. The home screen of child tracking application and login page.**

Figure 4 shows the Home screen of the application where user can logged in if already registered else go for register option and click on register button.



**Figure 5. Signup/Registration page**

Results:

1. Parents section:

Primarily, we described the parent's shows the email received of the GPS location of the child application, call log and SMS log, this is a real-time location track from the child mobile.



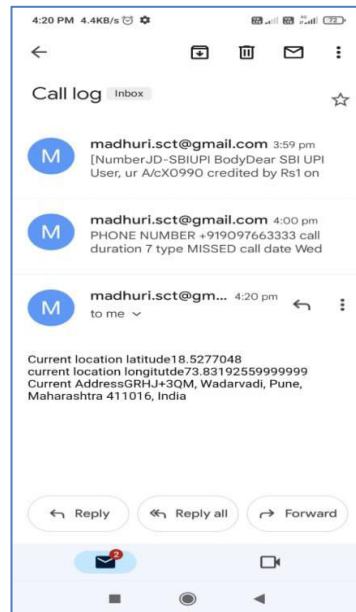


Figure 6. Call history, SMS History and location sent to parent via email.

## 2. Child section:

Secondly, the activities of the children on this app are going to be discussed in this section. At first, this app has to be installed on child smart-phone by the parents, and a child cannot know about this app. They have to register, log in to the child mobile phone app.

## V. CONCLUSION

With the use of child tracking app, parent can track and monitor their child with just a simple app. For parent, it is not possible to always stay with children as most of the parents go for work. By having this child tracking system, parents can follow the location of their children. In order to minimize kidnapping cases, the child tracking system is needed. This paper presented research that will help guardians monitor their child activities from anywhere using smart-phone whenever they want from any location. They can also check their child's current location, which websites they have visited or searched for, how many calls made etc.

This app is very useful for parents to monitor their children and to resolve their mental pressure and tension also.

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