TeenTracker- An Android Application

Ms. Gauri Sanjay Barge [1], Mr. Bhendavadekar Aditya Maruti [2], Mr. Jaiswal Devansh Arun[3]
Ms. Gauri Sambhaji Kshirsagar[4], Mr. Prathmesh Sambhaji Deshmukh[5], Mr. Suyash Sunil Dongre [6]

Student, Computer Engineering Vishwakarma Institute Of Technology Pune,India1
Student, Computer Engineering Vishwakarma Institute Of Technology Pune,India2
Student, Computer Engineering Vishwakarma Institute Of Technology Pune,India3
Student, Computer Engineering Vishwakarma Institute Of Technology Pune,India4
Student, Computer Engineering Vishwakarma Institute Of Technology Pune,India5
Student, Computer Engineering Vishwakarma Institute Of Technology Pune,India6

ABSTRACT

In this world of technology, there are many frauds, crimes occurring digitally and physically as well. A rapid increase in crime has been observed from 2021 to 2023 in India. Not only this, but the cyber crimes have also registered a significant growth such as ATM Frauds, Digital Payment Scams, OTP Frauds, etc. The system includes the tracking of kid's mobile using Google API. It will also monitor their activities on their mobile phones.

Keyword Child *tracking, Global Positioning System, mobile phones, Call Logs, SMS etc.*

1. Introduction

The children are like wet clay, you can mold them in any shape. Parents are not able to take care of their child from every time. Today's child is easily influenced by their friends, social media, and they might even get cheated or kidnapped by any of the strangers. This project focused on how parents can keep track their children to avoid child missing, kidnapping and etc. By using GPS as a tracking tool where it allows to determine the exact location (longitude and latitude) of the children. The main aim is to build an Android application that tracks children's most preferably teenagers location for parents which will help to reduce kidnapping crimes as well as locate our mobile phones if we lost or forget it somewhere and gather the browsing history of child to reduce digital frauds and crimes.

2. Literature Review

With increasing number of internet users, the number of digital crimes is increased. In order to protect our child from the unwanted circumstances, so we proposed our project.

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

- Increased rate of child kidnapping:
  In 2021, the registered kidnapping and abduction cases were of count 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.
- Increasing Digital frauds and crimes:
  The advancement of technology also has some drawbacks. Though it makes the life so speedy and fast, but it is also a root cause of online frauds.
- Lack of resources to raise the kid's childhood:
  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.
- Limited application for child monitoring:

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 are:

- To decrease child kidnapping cases through introduce the track system. –
- For parent it is not always possible to stay nearby their children as most of the parents wants to go for work. With this child tracking system, parents can track the location of their children easily.
- To propose tracking technology for child tracking system using GPS/ Google API –
- Developing a tracking tool where it allows determining the exact location (longitude and latitude) of the children.
- A study on few existing tracking systems have been done to gather the information and existing problem.-
- There are many existing systems that used the hardware kit which only tracked the mobiles location. Also many tracking applications on the Google play store charge subscription amount for other advanced features of child tracking. So, we try to find a cost effective and free to access solution in the form of an android application.

3. Methodology

In our TeenTracker application, we focus on the security of offspring. This system is made up of two sides: child and parent. The main aim of this system is to make it possible for 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 -1 Block Diagram of TeenTracker Application

Figure 1 shows the application Block Diagram. It shows how the actions within the application flow. It is necessary for users to log in to the system. A user can access the application and browse different websites, watch YouTube videos, and make phone calls if they log in as a child. Crucially, every user action is captured and archived in a database, carefully concealed from the kids. Parents have the option to watch and keep an eye on their child's activities.

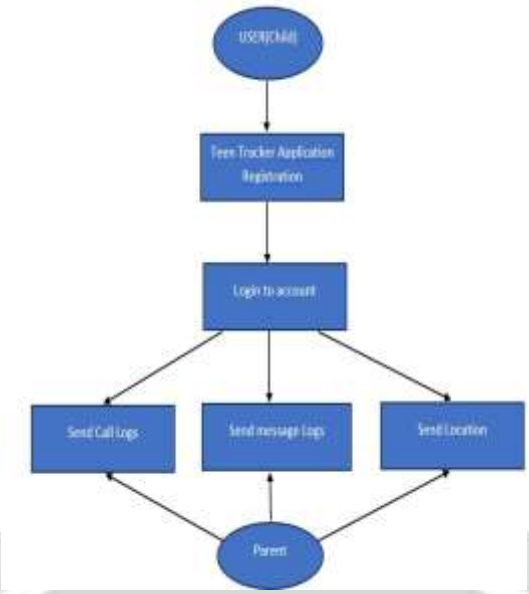

Fig. 2. Flow Diagram of TeenTracker Application

4. Results

This project emphasis on implementing children tracking system.
Includes the tracking of kids by the use of GPS technology which allows parent to get their child's live location and monitor their activities on their mobile phones.
This proposed system consists of two sides:

1.child side
2.parent side

Firstly, user need to register to the application and figure 4 depict the sign up page for parents.
To login into the system, parents have to input all of the required information like a name, password. If all the information match with the database, then a guardian can be able to login into the system, that a parent can track the current child location of the kids mobile phone, this is a real-time location track from the child mobile.
This android app use mobile services to secretly store all the call logs, short message service (SMS) logs, and accurate locations. This app has to be installed on child smart-phone by the parents, and a child cannot know about this app. Parents must have to manage this app secretly. They must register and then log in to the child mobile phone app.

Fig. 3 Login Page of Application

In fig. 3 we see the Login Page and if the user has already made an account, they will login in by entering their right

username and password.
In fig.4 there is the registration page of application where if the user did not already have an account, they must create an account by providing their credentials and the database will retain all of the supplied credentials.

Fig. 4 Registration page for new users

Fig. 5 Home Screen of the application

In Fig 5 shows the Teen Tracker application's home screen. Additionally, sms logs will be sent if the user presses the volume up button, and call logs will be sent if they click the volume down button. And the user will be able to send location as well as their co-ordinates by using the share location button.

In Fig 6 it is the send SMS logs screen of our teen tracker application .The SMS logs can be sent to the mail by the user.

Fig. 6 Send SMS Module

Fig. 7 Send Call Logs

In Fig 7 it is the send call logs screen of our teen tracker application , here call logs can be send to the mail by the user.

5. ADVANTAGES AND APPLICATIONS

- System can be made useful for any parent who wants monitoring their child without any physical interfering.
- Track a child digitally as well as keep them away from the dark side of the internet world.
- This system is not only limited to the child but it can also be used by women for their safety.
- The tracking of aged people can also done through this application who often forget their address

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