

# Parent Control Application

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**Abstract:** This paper proposes the development of a parental control application for Android mobile phones, with the aim of minimizing risks and preventing threats against minors from materializing. The application is based on WhatsApp sender and receiver messages, and then, through an internal process in the mobile, send them to a central server where they are analyzed and classified according to the text of the conversation that the child is maintaining and according to threats that is detected is to say sex, drugs and bullying, the application sends an informative alert to their parents for the respective parental control. In this process a natural language processing analysis is performed using a semantic classification algorithm.

**Keywords:** Android Studio, Java, Firebase, Application, Authentication.

## 1. Introduction

Caring about children's safety is at the cornerstone of parenting. Children's lives are increasingly interwoven with digital friends, settings and phenomena. New online and digital scenarios unfold with the ever accelerating progress of technological evolutions. Parents, guardians and others responsible for supervising children play an important role in shaping children's media use, keeping certain possibilities open for children to play, learn and socialize, while limiting others. Parents are confronted with new challenges to safeguard the security of their offspring in online and digital scenarios, as, in particular, mobile media and the 'Internet of Things' introducing opportunities and threats never seen before. Recent technologies have been launched in an attempt to address these challenges, arming caregivers with digital tools to monitor or track children's digital media use, i.e., so-called 'parental controls'.

## 2. Problem Definition

This Mobile App is an online Parent Control app is used for parents that are working

At any company as a staff and they can't physical present for child. Now these Covid-19 Situation all school and collages are closed and the child are schooling at home from meeting for the miss use of mobile from children to stop these.

## 3. Requirements of the Project

### A. Hardware Requirements

Table 1  
Hardware requirements

S. No.	Name of the equipment	Specification	Quantity
1	Computer System	4GB RAM or above	1
2	Processor	Intel i3 or above	1
3	Internet Connection	1 Mbps	1

### B. Software Requirements

Table 2  
Software requirements

S. No.	Name of the equipment	Specification	Quantity
1	Firebase		1
2	Android Studio	Version 3.3	1
3	JAVA JDK	Version 12.0.1	1

## 4. Working of the Project

The application firstly asks you to login to your account if user doesn't have an account he/she can register. After Login the user can see the details of their respective children like their account Id etc. After this user can see several choices to track their children like location, contact, web history, social media which allows user to know if they are performing illegal actions or seeing illegal things. For example, if the user wants to know the location of a child then through the location tracker the user can locate his/her particular child and track its

Whereabouts. Then in contacts user can see that who is contacting his/her particular child and whether the person communicating is known. Further user can view the web – history of his child to know whether the child is not browsing illegal activities online. Further some features can be added for the child's safety like Time Limit, Instant Pause, Schedules which does not makes the child too distracted from something important and helps to avoid excessive usage of the device. The application works efficiently and the user can use the particular application very easily and hence can protect their children from illegal things happening around them and user the children will always be protected from such harmful

## 5. Applications of the Project

### A. Present Application

The Parental Control presently works on two applications. First The Android Studio SDK which is a set of development tools that are used to develop applications for the Android

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platform. This SDK provides a selection of tools that are required to build Android applications and ensures the process goes as smoothly as possible. Second Java SDK/JDK which helps us to add new features to the application. This will make application user-friendly as well as interactive for the user and the user can use all the features of the application easily.

**B. Future Application**

In future, this application can be updated to recognize some more additional features in this application. Certain updates in the application can bring out new features which makes the user (Parent) to have a track about their whereabouts and safety. We can limit their screen time so they can study or sleep early, you can easily block device use OR set a screen time limit with the app’s timer settings. There’s also location tracking and Geofencing, so you’re always aware of your children’s whereabouts. Know when they’re at school or if they’re already at home. This is a great feature for parents who are always on the go.

**6. Pros and Cons of this Application**

Following are the pros and cons of this particular application:

**A. Pros:**

- 1) Block inappropriate content
- 2) Track every activity
- 3) Track location
- 4) Protection from online threat

**B. Cons**

- 1) Effects on Parents – Child relationships
- 2) Beware from Kid’s Intelligence
- 3) Malicious Software
- 4) High Cost

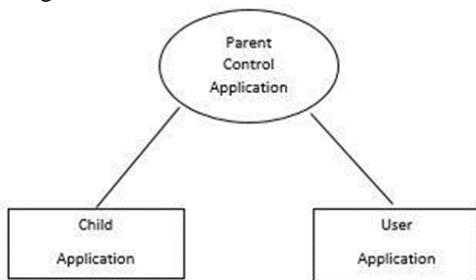


Fig. 1. DFD Level 0

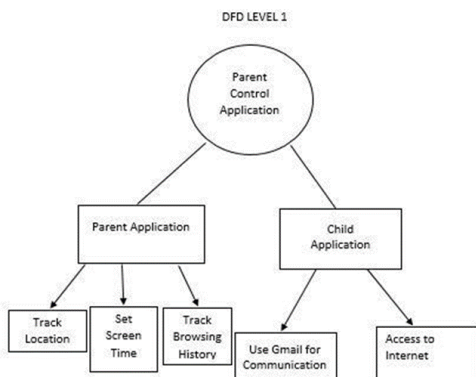


Fig. 2. DFD Level 1

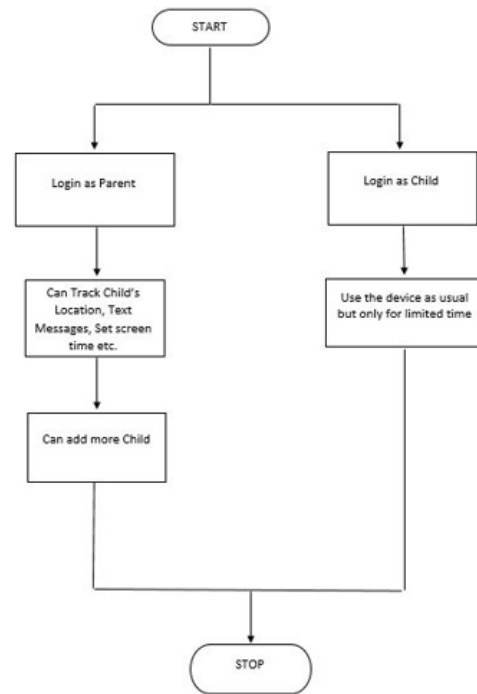


Fig. 3. Flowchart

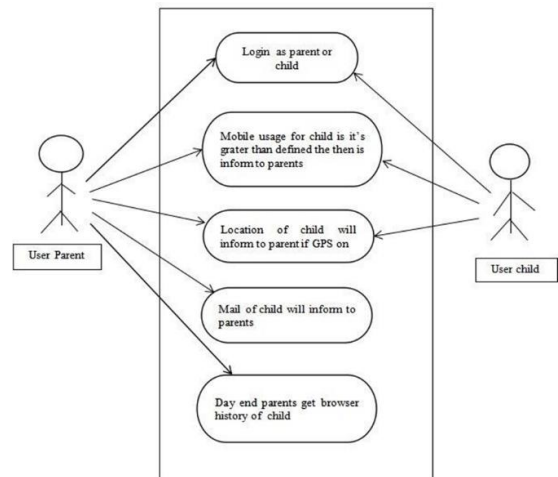


Fig. 4. Use case diagram

**7. Literature Review**

In the previous day’s parents could not be able to pay enough attention to their children. As a result, it was difficult to track children’s whereabouts and their activities performed. But with this particular App now parents are able to track down their children and can also know their daily activities performed. This App Also Provides some features like Time Limit, Instant Pause, Schedules which helps the parents to avoid their children from any distractions and also help them to know whether the children are using the device excessively. Android Studio is an only IDE for the development of Android applications. Android Studio mainly works on two platforms Java & Kotlin. It was launched on 16 May 2013, during a Google event. The Android Studio depends on the IntelliJ Idea IDE platform and it is being widely used by all the Android engineers worldwide. The Android developer can easily write application code which can

make mobile devices more useful and reliable in the global mobile market. Firebase is considered as web application platform. It helps developers" builds high-quality apps. It stores the data in JavaScript Object Notation (JSON) format which doesn't use query for inserting, updating, deleting or adding data to it. It is the backend of a system that is used as a database for storing data.

## 8. Algorithm

Step 1: Start  
 Step 2: Enter User Id and Password  
 Step 2.1: If user wants to create a new account  
 Step 2.2: Click on New Account to let the user create new account  
 Step 3: if select is Log in then,  
 Step 3.1: Asks the user to log in into the account  
 Step 3.2: if user Log in into account then,  
 Step 3.3: Navigate to the tracking page and asks user to choose the option  
 Step 4: Select the particular child to track  
 Step 5: Select what the user wishes to track (Message, Calls etc.)  
 Step 6: Displays the particular information of the related service.  
 Step 7: if user Login in failed then,  
 Step 7.1: Go to step 8  
 Step 8: Stop

## 9. Output

The app is successfully generated with an emulator device which represents us with a following output:

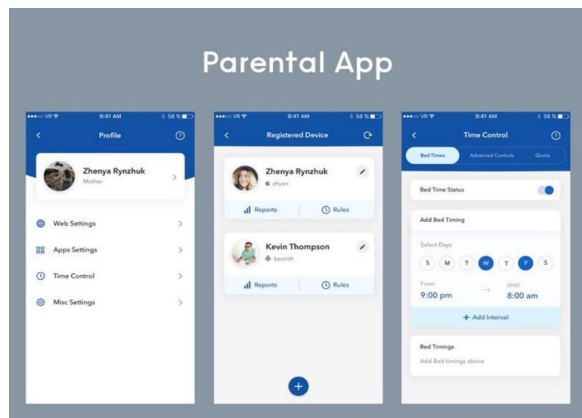


Fig. 5. Parental app

## 10. Conclusion

- Parental controls are features which may be included in digital television services, computer and video games, mobile devices and software that allow parents to restrict the access of content to their children. These controls were created to assist parents in their ability to restrict certain content viewable by their children.
- This application becomes very useful as the parent can keep an eye on the child without being present physically.
- Also parents can avoid excessive usage of device of their children by setting screen time-limit which allows parents to avoid children from distractions while they are studying.

## Acknowledgement

Under guidance of Ms. Shubhangi Chintawar we successfully completed the application development and learned to apply the knowledge in other fields.

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