Android Based Application For Smartphone Addiction Control And Monitoring

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Abstract: *Recently, a large number of cases have been reported about people getting addicted to the use of smartphones. With the ever increasing influence of social media, people spend a lot of time on such apps. Especially young children these days are given smartphones at a very young age. They may not understand what's good for them and what's harmful. In such cases over usage of smartphones leads to various problems such as lack of exercise,social anxiety,etc. In this project, we have tried to implement an application that basically uses two modules- a child module and a parent module. The parent module gets the overall usage analysis of the children, and the parents can decide if they want to put a specific limit on usage of a single app. If the child exceeds the limit,the app gets locked. They can unlock the app by indulging in various tasks for a specific amount of time. Not just the children,even adults can use this app for their benefit. As they would have more self control and rational thinking, they may not need any parent module and can use this app self-sufficiently. This ensures that people do not spend majority of their time in front of time consuming and addictive applications,but also indulge in self improvement through different tasks.*

Keywords : *Internet addiction, Smartphone addiction, Android application, Activity monitoring,Usage control, Addiction control.*

I. Introduction

Nowadays, due the rise in the popularity of smartphone and phones in general. People especially the youth spend an excessive amount of their time on phones which can cause a lot of problems. We need to take the problem of smartphone addiction more seriously. Through use of our application we are able to control the addiction of smartphones in people of all age groups and utilizing their time by giving them different tasks according to their age groups, which can be helpful in utilizing their time in productive way and with the help of this we control the users addiction of smartphone.

II. Objectives

The main objectives of the Android Application are as follows:
1. To reduce unnecessary smartphone usage among users.
2. To curb and restrict usage of smartphones as a means of passing more time than it actually should.
3. Promote healthy activities for the user in free time instead of completely devoting it to smartphones.
4. To allow parents to monitor their child's phone usage.

III. Problem Statement

The aim of this project is to restrict the excessive use of smartphone and eliminate smartphone addiction by developing an Android based application which will monitor the phone usage.

IV. Material And Methods

The methodology and materials implemented includes:
1.   System Description.
2.   System Block Diagram.
3.   Software Requirements.
4.   Languages Used.
5.   Hardware Requirements.

1.System Description

The user will register and login into android application. Application will display the user activity and usage statistics. If the overall screen time exceeds the threshold the applications will be locked. The user with parent authority can monitor the usage statistics of the child user using a web application. To unlock the applications on smartphone, specific task are given to the user. Completion of tasks allows user to use the phone. ------ is used for authentication and data analysis.

2. System Block Diagram
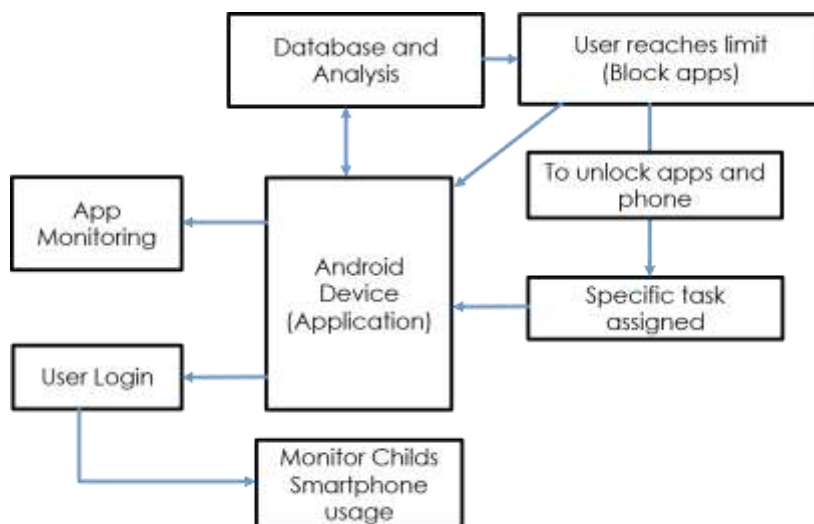
3. Software Requirements
1. Operating System: Windows 8, Windows 10.
2. Android Studio 3.1.2.
4. ASP.NET.
3. Microsoft SQL server.

4. Languages used
1.C# is used for server-side scripting.
2.Java is used for developing the android application.
3.SQLis used for Database.

5. Hardware Requirements
1. Android supported devices to run the front-end application.
2. Minimum Android Ice-Cream Sandwich 4.0 and above running in the android devices to support the application.
3. Computer or Mobile device for using the Web Application.

V. Conclusion

Several techniques have been studied to design the application to control and monitor the excess usage among people. Based on the phone usage of the user the applications assigns certain tasks and challenges which the user has to complete thereby successfully controlling the phone usage upto a certain extent..The project can be further improvised by developing additional ways to assign innovative tasks and challenges to the user and setting goals and thereby further improving on the basic ideology of the project. On the basis of the technical papers studied, the conclusion drawn is that the Android Application for Smartphone Addiction Control and Monitoring is an intelligent and innovative solution for the explosive rise in the phone usage by the people which is new kind of addiction.

References

[1].   S.-I. Chiu "The Relationship between Life Stress and Smartphone Addiction on Taiwanese University Student: A Mediation Model of Learning Self-Efficacy and Social Self-Efficacy" Computers in Human Behavior vol. 34 pp. 49-57 2014.

[2].   Lapointe C. Boudreau-Pinsonneault I. Vaghefi "Is Smartphone Usage Truly Smart? A Qualitative Investigation of IT Addictive Behaviors" Proceedings of the 46th Hawaii International Conference on System Sciences 2013.

[3].   [3]. C. Shin A. K. Dey "Automatically Detecting Problematic Use of Smartphones" Proceedings of the 2013 ACM International Joint Conference on Pervasive and Ubiquitous Computing pp. 335-344 2013.

[4].   Z. Xu O. Turel Y. Yuan "Online game addiction among adolescents: motivation and prevention factors" European Journal of Information Systems vol. 21 no. 3 pp. 321-340 2012.

[5].   C. Wang M. K. Lee Z. Hua "A theory of social media dependence: Evidence from microblog users" Decision Support Systems vol. 69 pp. 40-49 2015.

[6].   S. Andrews D. A. Ellis H. Shaw L. Piwek "Beyond Self-Report: Tools to Compare Estimated and Real-World Smartphone Use" PLOS ONE vol. 10 pp. e0139004 2015.

[7].   B.-W. Park K. C. Lee "The effect of users' characteristics and experiential factors on the compulsive usage of the smartphone" Ubiquitous Computing and Multimedia Applications Springer vol. 151 pp. 438-446 2011.