Location-Based Notification Blocker

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Abstract— The following thesis is about an android application which will execute programs to restrict certain app notifications which may be distracting to the user while he or she may be performing a particular task. The app can actually be used on a wide-section of potential users, but the focus of this project is mainly for students going to colleges, universities during their study lectures or practical's. Users more likely respond to a personal notification than one that is not direct and impersonal. So, the users want to see and read specific notifications but want to block certain notifications at different areas. Blocking of the type of notification will differ or may differ according to change in environment or area. These areas are defined as zones. Each zone has a set of priorities set that help to tell which app notifications should be blocked and which notifications should be delivered and notified to the user. The preferences are specific apps e.g. Instagram or any specific keywords as, e.g. the users family name, etc. If a keyword occurs in the notification of a blocked app, the notification won't be discarded; it will be delivered to the device. The data of the area or zone will be collected on the central server.

Keywords: Location-Based Notification Blocker

I. INTRODUCTION

People spent most of their time using smartphones as now it has become a major part of life for most of the users or people. Using smartphones has made it very easy for people to finish their petty jobs over a call, message or any other internet service. But excessive use of smartphones does become a problem if it distracts us from our important activities or tasks such as work, which in return affect's on decrease of performance on the work. A smartphone usage in classrooms experiment at London school of Economics proved that reducing usage of phones during lectures and practical's had helped in increasing students test scores by 6%. Not all the app notifications are always distracting, there are some app notifications that are relevant to the students while performing certain tasks. The aim of this project is to solve the problem of distracting app notifications by using keywords to identify which notifications are useful, important and necessary for the user for performing the current task at hand according to the user's environment or zone. The project consists of three components, an Android app, a web service API and a website, that when combined solve the problem, but can each be used individually for different purposes. The project is inspired from existing programs or system, experiments and different fundamental concepts.

II. OBJECTIVE OF THE SYSTEM

The main objective of the Android app is to restrict and reduce unwanted notifications to the user according to the user's location or zones and specific keywords which will be customized by the developer and the user as per there convenience.

III. SYSTEM ANALYSIS

A. *Existing System*

The current systems having similar functionality to achieve this concept where searched to solve the problem of notification distractions. Most of the time, systems with smartphone apps were seen to be easier to interact for the user, easy for configuring and easy to implement.

B. *Planned System*

The project aims to develop an app that will be having a simple user interface for making it more understandable to any user. The user will be selecting apps to be blocked. The notifications will be saved and directed to a particular log in the app where the user can later view the notifications. Once the notification is viewed, that specific notification will be automatically discarded from the log. The notifications will be blocked according to the user's location (defined as a zone) which will be set by the user at the start of the application.

IV. SYSTEM SPECIFICATIONS

A. *Hardware Requirements:*

- Android Device
- 2 GB RAM

B. *Software Requirements:-*

- Operating System: Windows
- Front-End: JAVA
- Back-End: JAVA
- IDE: Android Studio

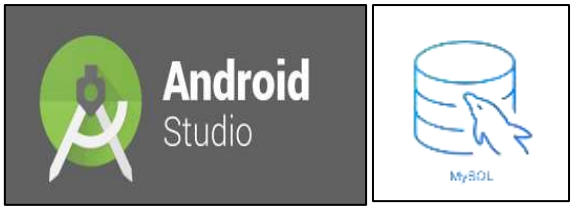

Fig. 1.1: IDE and Database used

C. *Modules Of notification block system:*

1) History Module

- The notifications that will be blocked will be later viewed in the 'HISTORY' log by the user.
- The latest notification will be viewed at the top of the log.

2) Snoozed Module

- The notifications can again be later viewed by the user in the 'SNOOZE' log.
- The user can set a time or snooze a particular notification to be viewed at a specific time.

3) Starred Module

- The notifications that are important to the user can be marked as starred.

– So the user can easily find a particular message or notification in the 'STARRED' log.

4) Settings Module

– The user can use the 'SETTINGS' module to change the access of the particular app notifications to be blocked and unblocked.
– Also the user can view simple configuration about the application.

V. CONCLUSION

This project accurately followed the plan to develop the applications, realistic milestones were set and were completed on time by the entire group. The thesis shows that notifications in smartphones were an issue causing distractions in daily life of students. The Android app was created for the exact same reason to avoid such distractions and focus more on the work to be done. The notification and location service were useful and in part, successful.

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