TOPIC:CONTAINMENT ZONE ALERTING APPLICATION

DOMAIN: Cloud Application Development.

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PROBLEM STATEMENT:

This application is intended to provide information about containment zones in a particular region by alerting people, through continuous monitoring of an individual's location.

Key benefits of the application are monitoring people's activity and alerting them of their safety movements.

DOMAIN: Cloud Application Development.

Development of An Android Application for Viewing Covid-19 Containment Zones and Monitoring Violators Who are Trespassing into It Using Firebase and Geofencing

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7328652/

Objective:In this paper, we focus on developing a mobile based application to provide information regarding the Covid-19 containment zones in West Bengal. The application further tracks the user's location and provides notification alert if the user has entered a containment zone.The application also provides daily Covid-19 case statistics to the users to keep them updated.

The application is developed on Android SDK and uses Firebase Cloud Firestore to store the location data. Android's geofencing client is used to create geofences around the containment zones and notification manager is used to provide notifications. The application also uses RESTful web services to show the Covid-19 cases in West Bengal.

MoveInSync's Containment Zone Tracker Aims At Democratising Information Flow

https://www.expresscomputer.in/interviews/moveinsyncs-containment-zone-tracker-aims-at-democratising-information-flow/55826/

Objective:The Covid-19 containment zone tracker is a quick and easy way to find out if a particular locality, home or office, lies in a containment zone. The tracker constitutes a dashboard which shows areas on the map that are currently containment zones. This is based on data gathered from public bulletins, and information from municipal governments, which is updated every hour.

Development of an Android application for viewing Covid19 containment zones and monitoring violators who are trespassing into it using Firebase and Geofencing

https://www.researchgate.net/publication/341298994_Development_of_an_Android_application_for_viewing_Covid-19_containment_zones_and_monitoring_violators_who_are_trespassing_into_it_using_Firebase_and_Geofencing/fulltext/5eba5d13299bf1287f7fd855/Development-of-an-Android-application-for-viewing-Covid-19-containment-zones-and-monitoring-violators-who-are-trespassing-into-it-using-Firebase-and-Geofencing.pdf

Objective: The Android application shows the location of the containment zones to the users. It also notifies the user when he or she trespasses the boundary of a containment zone or stays in the containment zones. All these functionalities are achieved by the help of Firebase and Geofencing tools from Google.

Tracking the Covid zones through geo-fencing technique

[Tracking the Covid zones through geo-fencing technique | Emerald Insight](#)

Objective: The purpose of this paper is to propose a methodology to track the Covid zones, to enhance and tighten the security measures. A geofence is created for the containment zone. The person who enters or exits out of that particular zone will be monitored and alert message will be sent to that person's mobile.

A Review of Mobile Applications Available in the App and Google Play Stores Used During the COVID-19 Outbreak

Objective: The objective of this paper was to review the functionalities and effectiveness of the free mobile health applications available in the Google Play and App stores used in Saudi Arabia, Italy, Singapore, the United Kingdom, USA, and India during the COVID-19 outbreak.

The analysis revealed that various applications have been developed for different functions like contact tracing, awareness building, appointment booking, online consultation, etc. However, only a few applications have integrated various functions and features such as self-assessment, consultation, support and access to information. Also, most of the apps are focused on contact tracing, while very few are dedicated to raising awareness and sharing information about the COVID-19 pandemic. Likewise, the majority of applications rely on GPS and Bluetooth technologies for relevant functions. No apps were identified that had built-in social media features. It is suggested to design and develop an integrated mobile health application with most of the features and functionalities analyzed in this study.

Summary of the existing apps in play store related to covid 19

1.Aarogya Setu -2020
Aarogya Setu is a mobile application developed by the Government of India to connect essential health services with the people of India in our combined fight against COVID-19. The app is aimed at augmenting the initiatives of the Government of India, particularly the Department of Health, in proactively reaching out to and informing the users of the app regarding risks, best practices and relevant advisories pertaining to the containment of COVID-19.

2.Bihar Saathi-2020
Bihar Saathi app by iBihar.org to aid the people in Bihar on health issues. It captures details of the person raising the SOS along with their geo-coordinates, that is their exact location, and shares it with the 'relevant government department for redressal'. Additionally, the app provides information about various initiatives and schemes by the government that raises awareness about the various health issues including outbreak .

3.CoBuddy-Covid19 tool-2020
CoBuddy-Covid 19 Coronavirus Help Tool-to help stop the spread of Covid 19, get info and help from the Government. The app makes sure that the people quarantined are within their location, communicate directly with them, provide information, and receive alerts if the quarantined are in need of any help. Location tracking and user verification with heat-maps, communication management, notifications and alerts, health tracking and feedback, essential operations management.

4. Corona watch-2020

This app is for showing the locations of Corona Affected Patients and their movement history of 14 days. General Public can use this to identify their movements in those areas. If found to be in such locations, they are requested to call help line numbers 104, 080-46848600, 080 66692000. The app also facilitates citizens to identify the nearest hospitals which can treat for coronavirus including the sample collection centres and testing labs. please visit: https://kgis.ksrsac.in/covid/ for other information.

5. CORONTINE-2020

This app is designed to help organisations (including the Government of Meghalaya) to maintain accountability and responsibility towards members and society. The app accomplishes this by monitoring the geographical movements of members and ensuring they are following proper work from home protocol and social distancing policies set by the organisation. Data will not be used for any purpose other than the safety of the members. Members have the right to activate/inactivate location as per their discretion. This app sends coordinates to the server if the user activates location. Users can check in at their home location and will be alerted if they leave the region around home location. Administrator/support cell will also get the list of users who are within the circle or outside the circle. App provides more information like emergency contact numbers and similar important information for the users to access in a short time at the hour of need.

References

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