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Exigency Notifier App

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ABSTRACT: Any normal person in need of assistance will make an effort to get in touch with the appropriate rescue and emergency agencies. Mobile applications are created as a result since they can assist those who are experiencing emergencies. A smartphone application is required to assist those who are in need. The victim's phone's camera will automatically turn on when the guardian selects the photo option. In order to aid people in urgent situations, this article suggests a mobile application that functions like an emergency pocket assistant. This application's concept is simple and practical. In order to utilise this mobile application, users simply need to shake their smartphone above their head in an emergency circumstance.

1.INTRODUCTION

In the creating field of versatile government (m-Government), portable advances are applied in administrative association to smooth out open administrations. M-Government is critical in various spaces, including m-Health[1]. Compared to economic and population expansion, the number of motor vehicles is increasing more quickly. Accidents and the number of fatalities from traffic incidents. On roadways like express freeways, when urgent medical help is most often lacking, accidents often result in fatalities.

A facility for delivering emergency medical care close to the accident scene can significantly lower the fatality rate. The issue with this approach is that there are different hotline numbers in every state for every individual issue. As a result, even a minor issue has the potential to turn disastrous. Although there are helpline numbers available, it can be very challenging for commuters and residents to quickly find the necessary helpline due to the fact that each state has its own helpline codes and numbers.

The proposed technique would integrate each of these helplines into a different versatile application. The product permits the client to choose the ongoing issue they are encountering, and afterward it gives the vital hotline numbers or sites that can help with settling the issue. The programe additionally permits clients to communicate their ongoing GPS area alongside prerecorded message or voice messages to their dearest companions and relatives. The product utilizes a data set to store the client's information, confided in contacts, and the prerecorded crisis message. It likewise furnishes the client with admittance to all of the helpline numbers, sites, and residential areas them to peruse[2].

The creators portray how individuals utilized Twitter or Skype to message, send, and get photos and places with their family members. One of Ichiguchi's most astonishing discoveries was the stunning measure of content shared on Twitter that made the Japanese government lay out an extraordinary record for this occasion and to advance the use of assigned hashtags. To stay away from availability issues, Wi-Fi areas of interest were briefly opened in lodgings, drive-through joints, public places, and, surprisingly, individual homes. This allowed residents the opportunity to gather a ton of information, including instant messages as well as pictures, recordings, and GPS facilitates.[3].

II. LITERATURE SURVEY

The document offers a description and assessment of routine eye examinations, as well as information on head posture that alerts the driver of the vehicle. The level of driver interruption or weariness is sometimes estimated using eye or head movements. These models rely on visually identifying non-readiness driving evidence. According to the examination of the provided model, the structure works better in terms of organisation and ultimately produces an enhanced yield. Additionally, they have shown that they can sustain a high degree of genuine attentiveness while having a decreased rate of inaccuracy and deception. The proposed effort has a greater rate of acknowledgment as a result. [4].

Using visual cues like pupil activity, eye index, and head posture, this approach method derives information concerning the driver's inattention (HP). EI can identify whether eyes are By comparing the heights of the pupil and eye, one can determine if the pupil is fully open, half-closed, or entirely closed. The ratio of the distance between the centres of the eyes over time is calculated using pupil activity. The position of the head is used to assess the driver's head movement using a range of metrics, such as tilting, nodding, and shaking, from the normal driving posture.

Therefore, this will be observed based on the driver's level of concentration while driving. Because of this, academics have created a range of strategies to solve the problem, and study on[4].

The most crucial topic that is regularly discussed is the increase in traffic accidents caused by driver weariness. It is crucial to raise awareness about this because accidents are caused by tiredness, which results from continuous driving or driving without stopping. Many different methods for detecting driver tiredness have recently been studied.

This essay examines these strategies. These methods identify driver tiredness by watching the driving pattern. Through anomalies in driving behaviour, the drowsy driving condition of the driver is suggested. Various metrics, including behavioural, vehicular, physiological, and subjective ones, have been used for this goal. The suggested method is entirely dependent on behavioural parameters, thus it won't require assistance from the driver. As a result, it is entirely based on the head movement parameters from the paper's several behavioural measures. [5].

A significant accomplishment in the medical sector is the fall accident detection and rescue system. It is based on a system that uses wearable sensors or environmental monitoring. But a smart phone today serves as a sensor in the modern environment. Digital compass readings and the tri-axial accelerometer waveform sequence on a smartphone are utilised as inputs for fall detection. When an accident occurs, the location of where it took place will be transmitted using GPS and a 3G system. Through the suggested method, this will enable them to receive better therapy on an instant basis.[6].

An indoor position system for situation awareness in emergency scenarios is suggested in this research. a system that uses inertial sensors to provide positional data in the absence of GNSS coverage. With the help of a mobile application for smartphones and a positioning data access paper, we supply the entire system with an indoor position and mapping web page. [7].

The wireless protocol designs, hardware implementations, and software implementations in this study are handled using a WBAN technique. The WABN technology is being used to install a healthcare application that works with sensor nodes to collect physiological data from WBAN medical bands. The use of the medical gateway wireless boards reduces interference, which results in an increase in previous nodes when translating the obtained data to a scheduled position utilising multi-hopping techniques. Here, the medical sector's and hospitals' tools can access patients' physiological signals.[8].

Following is a discussion of the initial trials with smartphone-based accident detection systems: In order to achieve smart vehicle modelling and provide the customer with new emergency services, the authors create a car accident detection and notification system that integrates cellphones with automobiles via a second generation On-Board-Unit (OBD-II) interface.[9].

III. METHODOLOGY

Currently, anytime any issues or events on the road happen, or if someone experiences any difficulties, such as losing consciousness or needing hospitalization, a witness is scared to call the police out of concern that they may be arrested. He will be confused about how to help the distressed person as well.

In order to add accident identification—which might potentially save lives—we use a vibration sensor to detect the collision and connect it to an Android app to pinpoint its location. This will send the ambulance at the right time even if there are no calls received from the general public. So that we can be saved before any physical harassment takes place, we have set up an android-based women's safety system. Any requests for immediate medical aid from senior citizens of any age are welcome. To transmit alarm notifications in an emergency, this system needs just one application.

It's possible that hospitals and police stations don't know all the details of an incident that happened in a neighbourhood. Police are unable to locate the victim because of a lack of information.

A future Android software called "Notifier App" will fix all of the problems with the current systems. All data will be maintained and saved using this manner properly and securely. The app will send a witness' uploaded photo of an incident that occurred in their neighbourhood to the nearest ambulance and police station.

The location of the occurrence was noted on Google Map and stored in the programme as a captured image. The location address is automatically presented when police click on a captured image, allowing them to act quickly. This aids in tracing events for the police and paramedics.

Sometimes it's imperative to immediately admit unidentified people to the hospital. It is necessary to have a user-friendly app that can provide location and detail.

This will save a life by alerting police and an ambulance to the situation as soon as possible. The user will be able to swiftly find the area and move there after logging in and selecting an unconscious person to dispatch to ambulance and police. This is quicker and includes a pick and a location in the message that is sent.

IV. IMPLEMENTATION

The software programme software utility implementation step comprises converting the technical archives bundle (TDP) for the software programme software utility into one or more configuration objects that have been manufactured, integrated, and tested in preparation for software acceptance testing. The primary activities involved in implementing software programme application utilities include: Fabrication of software programme application devices to satisfy structural unit specifications.

Constructing a software programme application utility configuration item by assembling, integrating, and testing various software programme software utility components.

Building a hard software programme software utility prototype to address implementation risks or establish a proof of concept for a manufacturing.

- Check that the acceptance testing procedures are clearly defined and that the software programme application software programme product (software configuration objects (CIs and computing environment)) is prepared for acceptance testing by doing a dry run of the procedures.

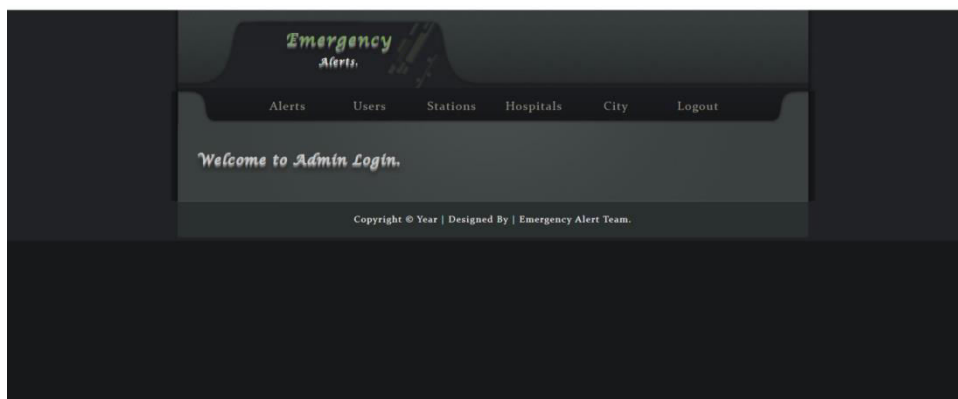


Fig1: Admin page

Fig. 1: The administrator page includes logout buttons for customers, police, emergency clinics, and cities where we can enter details about the nearby clinics, police, clients, and cities. Additionally, utilize logoutpage when we need to exit from administrator page.



Fig2: Login Page

Figure 2: The login screen. From here, we can access the admin page, where we can view information about the police, users, hospitals, and cities that have registered for this Android app.

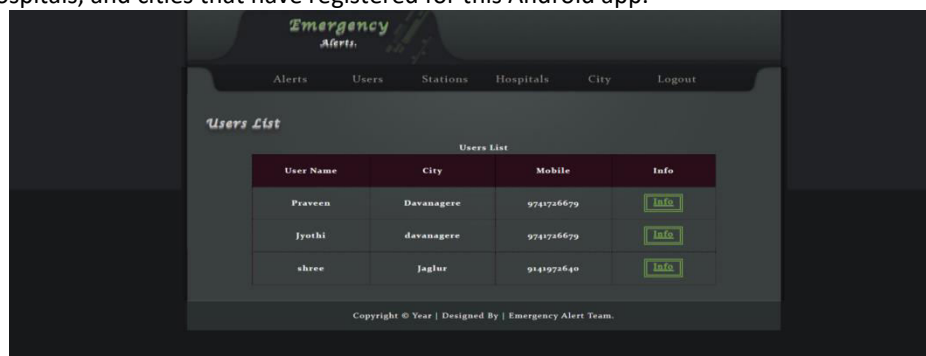


Fig3: User List

Fig3. Users list shows that how many users are registered

V. RESULTS

In order to provide the public with a mechanism to contact the police and hospitals in an emergency without disclosing any personal information, the Exigency Notifier App was developed for Android and the web. The user can share a photo of an incident that occurred in their neighbourhood after taking a picture of it. The image is sent to the closest police station after it has been uploaded. The taken image stored in the app includes the incident's geographic address as displayed on Google Map. The cops can arrive at the scene of the incident quickly and easily thanks to this programme.

The effectiveness and correctness of the application are evaluated using a number of test scenarios. Despite the efforts made, one might not fully satisfy oneself.



For the convenience of the customers, our suggested mobile application is multi-platform, simple to use, and multilingual (Arabic and English). Additionally, the application we've created allows for two-way contact between civilians and the police, allowing users to alert them to any potential situations like robberies. In order for the authorities to verify the user's identity, encourage cautious behaviour, and minimize false alarms, this alert feature necessitates user registration in our database.

The user first registers by filling out a short form in the suggested smart phone application. After that, the user can submit details regarding the occurrence by using the Alert button. After submission, the information is sent over WiFi to the server, stored there, and made available to the authorities so they can look into the suspicious event. If confirmed, all users in the affected area are informed using SMS or push notifications, as appropriate.

It is necessary for those who want to search for files to be registered. They should be aware of their respective Email IDs and mobile numbers. In order to record the victim's position, take a photo, find the closest information, and alert special officers, the guardian should enter the victim's phone number.

If a parent shakes his phone by a certain amount, the speaker will automatically turn on and the guardian will hear the ringtone. By selecting the location and photo options, The Guardian will learn the victim's location and photo. Figure 5 shows Guardian can view the victim's location in real time using GPS, and he can travel to the victim's location with the aid of transportation facilities.

If the Guardian wants to know the location of the closest hospital and police station, he can use the GPS feature by clicking on Nearest Info, which will then display a list of all nearby hospitals and police stations.

Setting and speed are the two options that the administrator offers. After selecting the speed option, the GPS speed is obtained. It will begin displaying speed once it receives a GPS position. Users will set the threshold value and 1 m/sec speed, and then we will apply force till it crosses that speed. Parents will be notified if it crosses the speed limit.

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