WOMEN SAFETY TOOL

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ABSTRACT:

Women's security is a critical issue in today's world and it's very much needed for every individual to be acting over such an issue. This study describes a GPS-based "Women Safety System" that combines a GPS device with other safety features and provides alerts and messages with an emergency button trigger whenever someone is in difficulty. They might not have so much time, all that they have to do is generate a distress emergency signal by pressing the button. Our system offers a practical and cost-effective option for detecting problems. Now days due to recently happened case such as rape by drivers or colleges, burglary etc., Women's security, particularly women's security, has risen to the top of the world's priority list. System uses Global Positioning System(GPS) technology to find out the location of the women .The information of women position provided by the device can be viewed on Google maps using Internet or specified software .The companies are looking forward to the security problem and requires a system that will efficiently evaluate the problem of women security working in night shifts , traveling alone .We focus on the proposed model that can be used to deal with the problem of security issue of women using GPS base tracking system.

1. INTRODUCTION

We are probably living in the worst time our modern society has ever seen in terms of women security. We want to make women feel as powerful as they have always felt, strong enough to combat the parasites of our society, strong enough to overcome obstacles, and strong enough to protect themselves from sexual attacks. We would really like to empower those who might otherwise be powerless. Our goal is to create a system that will make every place and hour safer for women once again. A system which shall re-establish how very gregarious mankind is. This system shall geotag and send SOS alert to the nearest police station, close contacts and also alert people in and around the venue of the crime, everything just at a click of a button. The idea is to make up for the time it takes police to arrive at the location.

Women's safety is a major worry that has remained the most pressing issue to date. Women's safety is extremely important, whether at home, outside the home, or at work. Few crimes against women, notably rape cases, were dreadful and terrifying. Until now, the majority of women of various ages have been subjected to violence, domestic abuse, and rape. Because women are more likely to travel late at night, it's important for them to stay attentive and safe. Despite the fact that the government is taking steps to ensure their protection, there are free safety applications for women that can assist them in staying secure. Because the majority of girls nowadays carry their smartphones with them, at least one of the personal safety apps should be installed. Such a security app for women will undoubtedly assist in one way or another. This is a user-friendly app that can be used by anyone who has it installed on their smartphone. Our goal is to make it as easy as possible for you to contact your local assistance. In this system, the user must enter three contact numbers, and in the event of an emergency, the system sends SMS and calls one of the numbers entered into the system with the location by moving the phone up and down three times. The phone begins to

vibrate, and the siren begins to ring. This device is a vital tool for everyone because it includes functions for everyday safety as well as real-life catastrophes.

2. EXISTING SYSTEM

In the existing system there is no monitoring system for girls, it can create many problems for them and there is no safety mechanism to protect the girls from the misbehaviour activities. Furthermore, there is no alert mechanism for the girl's safety in the current system; it must be done manually.

LIMITATIONS OF EXISTING SYSTEM:

- Because all existing systems must be connected to the GPRS service in order to function effectively, they cannot be used in an emergency if the internet is not available.

- There is no camera detector which is portable to ensure our privacy.

- Monitoring was tedious. Mischance in arriving rate

3. PROPOSED SYSTEM:

Java is being used to build the proposed system. The system is made capable of sending the emergency message along with the location of the victim to the preferred contacts.

Almost all the existing systems can send the emergency messages but none can predict the location and no existing system is as comfortable as the proposed system. Our model would be beneficial for all by assisting them how to access and use all the features provided.

- The Proposed system is developed considering the drawbacks of the existing system.
- In this system there is no complex and multiple operations to be done.
- There is only a single button called "PANIC BUTTON".
- By pressing this button every action take place.
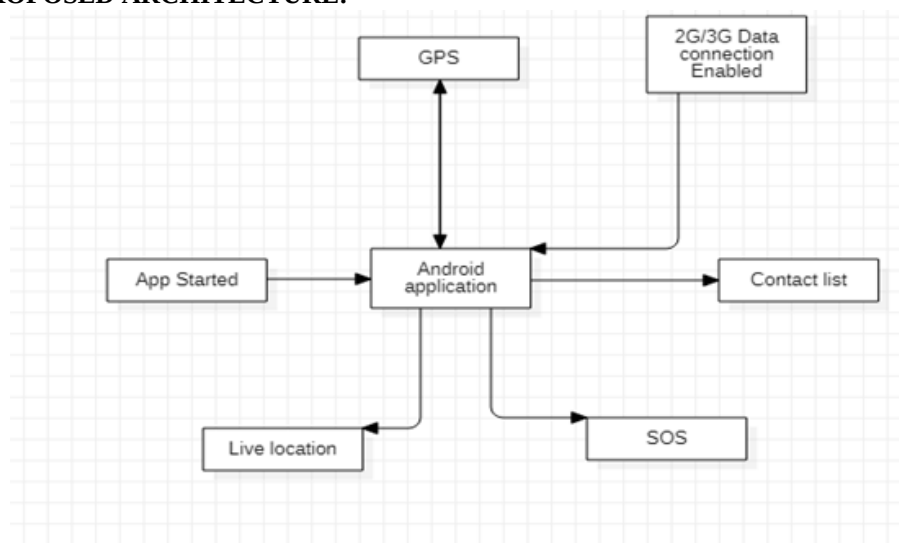
3.1. PROPOSED ARCHITECTURE:
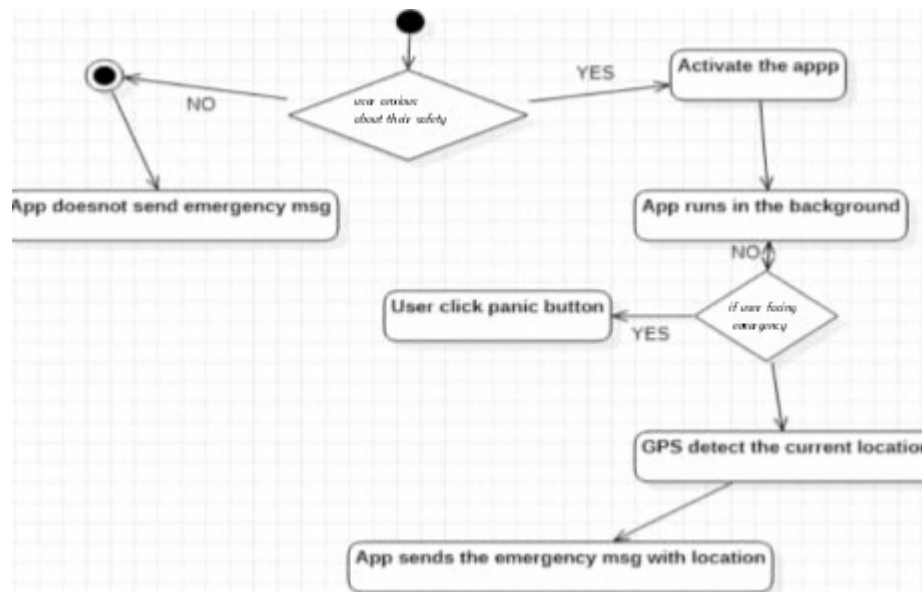

Fig.1. System Architecture

Fig.2. Technical Architecture

The relationship between different components might be depicted using a system architecture diagram. Typically, they are made for systems that comprise both hardware and software, which are shown in the diagram to explain how they interact. It can, however, be made for online applications.

3.2. IMPLEMENTATION:

- The Application is activated by opening the app and clicking the emergency button.
- Now when it is opened it displays the contacts lists ,you can select the preferred contacts.
- When the person is in emergency he should only click the emergency button and then immediately the message and the location will be shared to the preferred contacts.
- This device works with or without internet connectivity.
- This is an all in one system , it uses less power and gives more efficiency.

Java Platform:

- The hardware or software environment in which a programme runs is referred to as a platform. The Java platform differs from most other platforms in that it's a software-only platform that runs on top of other, hardware-based platforms. The majority of other systems are described as a hybrid of hardware and software. There are two parts to the Java platform: the Java Virtual Machine (Java VM) and the Java Application Programming Interface (Java API) (Java API) The Java Virtual Machine (Java VM) is the foundation of the Java platform and is ported to a variety of hardware systems. The Java API is a comprehensive collection of ready-to-use software components that include graphical user interface (GUI) widgets and other essential features. Libraries (packages) of linked components make up the Java API. The Java Structure diagram shows a Java programme, such as an application or an applet, operating on the Java platform. The Java API and Virtual Machine, as shown in the diagram, protect the Java programme from hardware requirements.
- Java can be a little slower than native code because it is a platform-independent environment.Smart compilers, fine-tuned interpreters, and just-in-time byte code compilers, on the other hand, can bring Java's performance near to native code without compromising flexibility.

Android SDK –API 23:

Android is a Linux-based operating system with a Java programming interface.The Android Software Development Kit (Android SDK) includes all of the tools needed to create Android apps.This includes a compiler, debugger and a device emulator, as well as its own virtual machine to run Android programs. Android is firstly developed by Google. Android supports background processing, has a large user interface library, OpenGL graphics support for 2-D and 3-D graphics, access to the file system. An Android application is made up of many components that can be reused from other apps. This leads to the concept of a task in Android; an application can re-use other Android component to archive a task.

Android Development Tools :

• Android is a much-anticipated open source mobile operating system that includes a base operating system, an application middleware layer, a Java software development kit (SDK), and a set of system apps. Android mobile application development is built on Java language codes since it allows developers to create code in Java, as seen in the Android structure architecture diagram below. The Android operating system is made up of a collection of software components that are separated into five divisions and four layers.

Android Studio 1,3.2:

Based on IntelliJ IDEA, Android Studio is the official Integrated Development Environment (IDE) for Android app development. In addition to IntelliJ's powerful code editor and development tools, Android Studio has its own set of features, includes additional capabilities that improve your efficiency when developing Android apps.

- A flexible Gradle-based build system
- A fast and feature-rich emulator
- A unified development environment for all Android devices
- Instant Run to push changes to your running app without building a new APK
- To assist you construct common app features and import sample code, you can use GitHub integration and code templates
- Extensive testing tools and frameworks
- Performance, usability, version compatibility, and other issues are caught using lint tools.
- C++ and NDK support
- Google Cloud Platform compatibility is built-in, making it simple to combine Google Cloud Messaging and App Engine.
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Android Architecture or Android Software Stack Is Categorized into Five Parts:

1) linux kernel

2) native libraries (middleware),

3) Android Runtime

4) Framework for the application

5) Implementation

Linux Kernel

It is at the root of android architecture that the heart of android architecture resides. Device drivers, power management, memory management, device management, and resource access are all handled by the Linux kernel.

Libraries

Native libraries such as WebKit, OpenGL, FreeType, SQLite, Media, C runtime library (libc), and others sit on top of the Linux kernel.WebKit is in control of browser support, while SQLite is in responsibility of databases, FreeType is responsible for font support, and Media is responsible for audio and video playing and recording.

Android Runtime

This is the architecture's third section, which can be found on the second tier from the bottom. This section contains the Dalvik Virtual Machine, which is a Java Virtual Machine that has been specifically built and optimised for Android. The Dalvik virtual machine makes advantage of Linux core features such as memory management and multi-threading, which are built into the Java programming language.Every Android application can run in its own process, with its own instance of the Dalvik virtual computer, thanks to the Dalvik VM. The Android runtime also includes a set of core libraries that allow Android app developers to use the standard Java programming language to create Android apps.

Framework for the application

The android framework sits on top of native libraries and the Android runtime. Android APIs like as UI (User Interface), telephony, resources, locations, Content Providers (data), and package managers are all part of the Android framework. It comes with a lot of classes and interfaces for making Android apps.

Applications

There are applications that run on top of the Android framework. The android framework, which includes the android runtime and libraries, is used by all applications such as home, contact, settings, games, and browsers. Linus kernel is used by the Android runtime and native libraries.
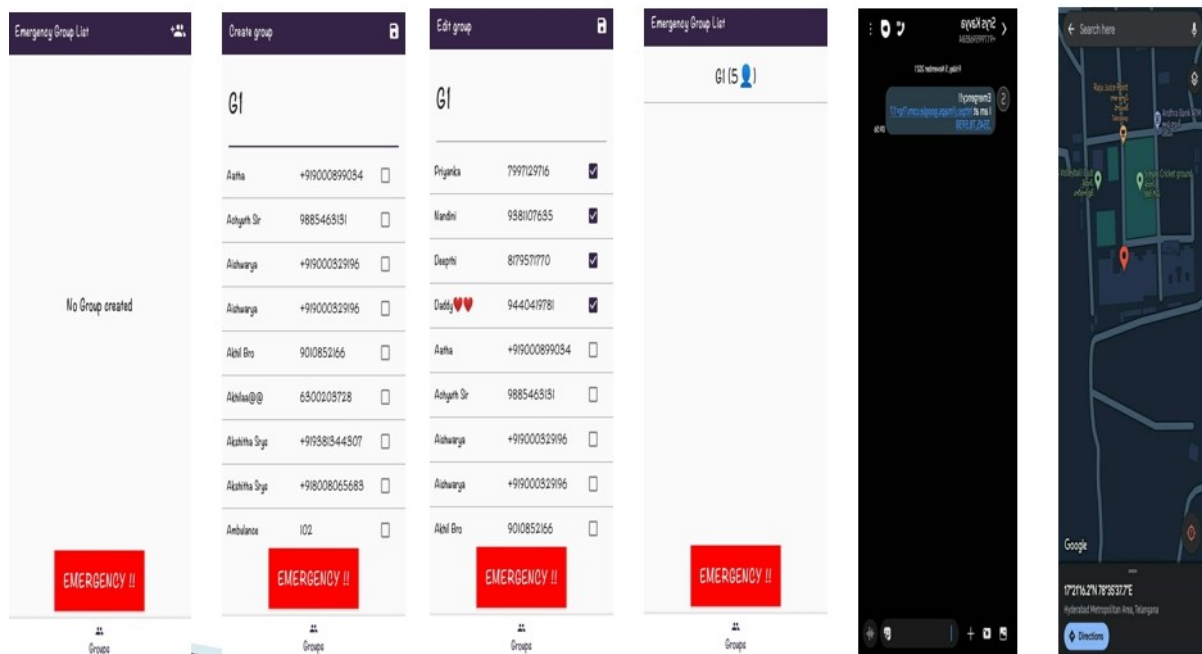
4.RESULT:

Fig.3.Result

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