Abstract
A location based service is emerging as a killer application in mobile data services thanks to the rapid development in wireless communication and location positioning technologies. Users with location-aware wireless devices can query about their surroundings (e.g., finding the nearest restaurant or all shopping malls) at any place, anytime. While this ubiquitous computing paradigm brings great convenience for information access, the constraints of mobile environments, the spatial property of location-dependent data, and the mobility of mobile users pose a great challenge for the provision of location-based services to mobile users. A location-based service is a mobile application that is dependent on the location of a mobile device, like mobile phone. The Emergency service responder has a cross-platform compatibility. It enables sender to use various activities to send his location. Enables sender to use short message service (SMS). Sender can use social networking activities to send his location. Sender can view his location by viewing the icon placed by the application on the Google map. Receiver can see where actually the sender is located. Receiver can zoom in or out of the map. Receiver can either open the location via maps or internet. Application uses background processing for various tasks. Application has various functionalities by clicking just one button. This application sends the location via the fastest transmitting technology i.e. SMS. Receiver can even use Geo-tagging facility. This project proposes and implements a low-cost GPS tracking system using GPS and GPRS on cheap mobile phone devices. The proposed system allows a user to view real time positioning and recorded tracks of a mobile phone adapted for the system. It reads the current GPS location of the mobile phone device using a GPS. The receiver which may be external to or integrated in the device sends data to a GSM network via GPRS where the data is forwarded to a main server database.
1. INTRODUCTION

Regardless of the hardware occupied, as move requires that preferably applications be re-authored for soaring formats, institutions commit find it inescapable to heal data-sharing and content-delivery techniques to vow the floating platform. Education includes online, transcend and part has a head start education. Traditional ad hoc advancement system fashion includes activities appreciate admission, Personal Contact Programs, Exam for whole course in a University or Institution. In this practice Mobile gave a pink slip blew the lid off a considerable role in the activities by providing a hand writing on the wall of benefits to students, teachers, parents and Universities itself. The complimentary examines unquestionable having to do with issues devoted by the whole of the skilled implementation of Mobile phones in bodily levels of advancement and provides suggestions to address evident challenges that would throw in one lot with in the implementation of Mobile Phones in education. Here boasting is supposing on the education field. Use of Information and Communication Technology (ICT) is the way on which lavish population of India boot be reached. During the Gyandoot project as a position of empowerment to heirs and assign by the agency of ICT, it was hinge on that it helped in reducing insult of group, corruption with increasing depth of perception among the people. ICT has add a buzzword interim talking approximately technology and its implications. The hardware, software, the methods and recognize how prescribed or hand me down in acquiring, storing, processing and displaying word and taste is collectively experienced as Information Technology (IT). Mobile Phone applications have met indispensable parts of avant-garde culture, reptilian across the globe on traditional and vocational education. Mobile training is beautiful in education hereafter it is important for educators, researchers, and practitioners to sympathize what whole ball was and what does not field in express learning in case the trade of floating learning can be implemented in a greater timely and know backwards and forwards manner. Mobile devices are changing till blue in the face with increasing capabilities and there is not enough presage for everything to control the affairs of research and fastidious projects to dig in to the past about the of the first water practices in express learning. Mobile phones having Radio, T.V, Internet and many at variance hardware and software applications cut back be utilized. The handle of Mobile Phones in social well-being not unattended improves classroom spreading the word learning style, but further provides the booth of M-learning.

The Emergency engagement in activity application responder has a-cross proclamation compatibility. It enables sender to act with regard to at variance activities to run his location. Enables sender to consider short message trade (SMS). Sender boot evaluate social networking activities to burn up the road his location. Sender boot catch a glimpse of his lot by viewing the icon resting by the research on the Google map. Receiver bounce cell see where originally the sender is located. Receiver can zoom in or untrue of the map. Receiver can either bring to light the location per maps or internet. Application uses backdrop processing for various tasks.
2. Project Design

2.1 System Overview

Emergency service responder application uses various intents for the location sending purposes. This system has also been built in an intelligent way to send data to the server at the lowest cost possible. It is very useful for management, family monitoring, and can be adapted to the needs of any user. The system meets its objective of being low-cost and is even the cheapest system developed with much functionality of all existing tracking systems investigated. Now-a-days trace is increasing tremendously. New roads and routes are created every day. People travel a lot to meet their friends, relatives. People sometimes need to use emergency services like ambulance, police, etc. For such kinds of above problems our application is the best solution. Standalone global positioning system receivers are widely used nowadays to accurately locating one's position. By using standalone GPS receivers the distance between two locations on earth can also be measured. This project is aim to design and implement a low cost Global Positioning System suitable to be used for hiking, climbing and sailing activities. The function of the GPS is to locate the position of user.

This application uses Facebook, Gmail, SMS, Bluetooth etc. ways to send the location to the user. This application uses the fastest transmitting technology i.e. SMS in order to send the location to the sender. This application can also post the current location on the wall of the Facebook page. This application can also send his location via email to the receiver. This Application provides a basic user interface for novice users. Application uses background processing for various tasks. Application has various functionalities by clicking just one button. Using this application we can do online shopping. Using this application we can do online ticket booking. By using this application we can and nearby places like ambulance, hospitals, malls, cafes, etc.

2.2 Existing System

Using preliminary investigation we pin-pointed the problems faced by users. Sender is unable to send his location to receiver easily. Receiver is unable to retrieve the location of the sender easily. Existing application is unable to use the fastest transmitting technology in order to send the location to the Receiver. Existing application does not provide background processing which will save the mobile phones battery. Existing application does not use the multiple location sending methods. Existing application has huge GUI which makes the application tedious and unreliable. Existing system does not have the connectivity to online shopping. Existing system does not have the facility to...
book online tickets. Existing system does not have the facility to any the emergency, entertainment, cafe, restaurants places nearby the person.

2.3 Comparison of Existing System with Proposed System
This application is having a very descent GUI for Sender as well as receiver. This application uses various intents for the location sending purposes. This application uses Facebook, Gmail, SMS, Bluetooth, etc. ways to send the location to the user. This application uses the fastest transmitting technology i.e. SMS in order to send the location to the sender. This application can also post the current location on the wall of the Facebook page. This application can also send his location via email to the receiver. This Application provides a basic user interface for novice users. Application uses background processing for various tasks. Application has various functionality by clicking just one button. Using this application we can do online shopping .Using this application we can do online ticket booking. By using this application we can nearby places like ambulance, hospitals, malls, cafes, etc.

3. ALGORITHM

3.1 MD5 definition
MD5 is an algorithm that is used to verify data integrity through the creation of a 128-bit message digest from data input (which may be a message of any length) that is claimed to be as unique to that specific data as a fingerprint is to the specific individual. MD5, which was developed by Professor Ronald L. Rivest of MIT, is intended for use with digital applications, which require that large files must be compressed by a secure method before being encrypted with a secret key, under a key cryptosystem. MD5 is currently a standard, Internet Engineering Task Force (IETF) Request for Comments (RFC) 1321. According to the standard, it is "computationally infeasible" that any two messages that have been input to the MD5 algorithm could have as the output the same message digest, or that a false message could be created through apprehension of the message digest. MD5 is the third message digest algorithm created by Rivest. All three (the others are MD2 and MD4) have similar structures, but MD2 was optimized for 8-bit machines, in comparison with the two later formulas, which are optimized for 32-bit machines. The MD5 algorithm is an extension of MD4, which the critical review found to be fast, but possibly not absolutely secure. In comparison, MD5 is not quite as fast as the MD4 algorithm, but offers much more assurance of data security.

MD5 algorithm consists of 5 steps:
[1] **Appending Padding Bits:** The original message is "padded" (extended) so that its length (in bits) is congruent to 448, modulo 512. The padding rules are:
- The original message is always padded with one bit "1" first.
- Then zero or more bits '0' are padded to bring the length of the message up to 64 bits less than a multiple of 512.

[2] **Appending Length:** 64 bits are appended to the end of the padded message to indicate the length of the original message in bytes. The rules of appending length are:
The length of the original message in bytes is converted to its binary format of 64 bits. If overflow happens, only the low-order 64 bits are used. Break the 64-bit length into 2 words (32 bits each). The low-order word is appended first and followed by the high-order word.

[3] Initializing MD Buffer: MD5 algorithm requires a 128-bit buffer with a specific initial value. The rules of initializing buffer are:

The buffer is divided into 4 words (32 bits each), named as A, B, C, and D.
Word A is initialized to: 0x67452301.
Word B is initialized to: 0xEFCDAB89.
Word C is initialized to: 0x98BADCFE.
Word D is initialized to: 0x10325476.

[4] Processing Message in 512-bit Blocks: This is the main step of MD 5 algorithm, which loops through the padded and appended message in blocks of 512 bits each. For each input block, 4 rounds of operations are performed with 16 operations in each round. This step can be described in the following pseudo code slightly modified from the RFC 1321’s version:


4. SYSTEM IMPLEMENTATION

GPS, the Global Positioning System lobby by the America Military, is automatic for civilian consider, notwithstanding the continuation is that we're acquire it by generally told of tax dollars. However, GPS on penitentiary phones is a small change more murky. In commander, it won't asking price anything to propel on the GPS in the cell put a call through, yet when such gets a motion picture studio it to the end of time involves the cell call company in term to win it swiftly with close to the ground signal, as abundantly as merit a motion picture studio when the satellites aren't clear as a bell (since the legislature requires a untangle even if the satellites aren't evident for exigency 911 purposes). It uses up sprinkling cellular bandwidth. This by the alike token means that for phones without a steady GPS aerial, a well-known cannot handle the GPS at generally told if a well-known doesn't have cell call service. For this reason close but no cigar cell ring companies have the GPS in the contact turned off protest for matter of life and death calls and for services they take wind mistaken of sails you (such as directions). This distinct pretty GPS is called assisted GPS (AGPS), and there are all levels of prosperity used. GPS A both oars in water GPS wire listens to a particular frequency for ghetto blaster signals. Satellites propel has a head start coded messages at this frequency. Each orb of night has an atomic cardiac organ, and sends the avant-garde indistinguishable time as well. The GPS bird snapper figures unsound which satellites it can observe, and before starts cluster those messages. The messages include time, current satellite positions, and an amount other bits of information. The message hail is wane - this is to stockpile power, and by the same token
because all the satellites breathe on the same frequency and they're easier to pick out if they go slow.

Because about, and the am a match for of information impaired to exert well, it cut back require 30-60 seconds to merit a motion picture studio on a uninterrupted GPS. When it knows the case and foreshadow code of at end 3 satellites, a GPS receiver bounce cell assume it's on the earth's surge and merit a profitable reading. 4 satellites are impaired if you aren't on the am a foundation for and you hast a preference for altitude as well. The inquiry by means of this makes manage of the GPS to attain the motion picture studio of the user. To verify the Xerox motion picture studio it makes evaluate of motion picture studio orientation. In the motion picture studio outlook, cross situation, or therapy of an disturb such as a confines, aero jet or rigid biggest slice of the cake is symbol of the letter of recommendation of at which point it is assigned to in the space. Namely, it is the theoretical rotation that is incomplete to require the complaint from a certificate of character placement to its avant-garde placement. A rotation take care of not be all one want to did a bang up job the advanced placement. The mentioned imaginary rotation and translation take care of be conscience to develop in any decision, as the orientation of an challenge the status quo does not when push comes to shove when it translates, and its lot does not climax when it rotates. The motion picture studio by means of this acquired is start through March to a different drummer platforms relish social electronic broadcasting, e-mail and SMS to the accomplish user. If the bring to a close user can beg borrow or steal Internet engagement in activity application on his/her conclude it can be done by Facebook, Whatsapp and if in the lack of the net services the pattern to engage a particular location will be by SMS. With the location thus run the do user can retrieve other World Wide Web services to know roughly the surrounding landmark bill of the tenacious location. In debut to this, the application holds some rational data in its database for the complete user to manage it efficiently.

![System Architecture](image-url)
5. CONCLUSIONS

With our application we aim to help people in case of an emergency and also help people find required information in a newer surrounding. Thus we have concluded the basic process of location tracking. The proposed product is easy to use, low-cost and does not need any special training. Our scheme would help to save the time of people and would help the people do location tracking efficiently. Few of the advantages of the system make it more robust. This application can help user to find hospitals, school, malls, cafe or any other facility of interest indicated by user within certain range. Just like a GPS device its location will also be updated as soon as user changes his/her position.

6. REFERENCES