ANDROID BASED APPLICATION FOR BLOOD BANK NETWORK SYSTEM

Nandan Kumar Roy, Nikhil, Kumar Anubhav, Prof. Vinayak Kottawar
D. Y. Patil College of Engineering

Abstract: - The process of managing the blood bag that is received from the blood donation events desires an accurate and systematic management. The blood bag ought to be handled with care and treated whole as a result of it's aforementioned to someone's life. The event of Web-based bank Management System (BBMS) is planned to provide a management sensible to the bank thus on handle the blood bag. In Kuala Terengganu, East terra firma Coast of Asian nation has only 1 government hospital that handles bank presently is using a standalone system. This web-based management system was developed to satisfy the wants for Jeevandan bank. Various hospital might have other ways that and approach of handling blood bag. The methodology accustomed build this methodology uses the Rational Untied method (RUP). The technology platform in implementing this methodology uses golem programming atmosphere with Java and, victimization MySQL for SQL information. The Blood Donation Agent is to form associate e-Information concerning the donor and organization that ar associated with donating the blood. Through this application any individual World Health Organization is inquisitive about donating the blood will register himself within the same method if any organization desires to register itself with this web site which will additionally register. Furthermore if any general client desires to create request blood on-line he may take the assistance of this web site. Admin is that the main authority World Health Organization will do addition" deletion" and modification if needed.

Keywords: - Blood Bank, Hospital, Donor, Location,Haversine formula.

Introduction: - Paste Article Duplication process Re-Write Suggestion done (unique Article) the necessity for the blood is significant for treating in medical field. For every second somebody wishes blood uncountable to avoid wasting} lots of their life. The task of bank is to receive blood from numerous donors, to look at the blood team's data and to send the specified blood throughout the necessity to the hospital simply just in case of emergencies. In developing countries, particularly like Republic of India, the blood resource lacks in quantity which will be a barrier to others life. The Southern regions of Asia ar weak in regulation of BTS and usually transferring the vital time data ar troublesome. There ar many shortcomings like decentralized nature of donor and required blood is needed at serious times. Manually is troublesome within the current existing system and pursuit the information for specific folks is subtle. The aim of serving Associate in nursing economical quality of blood to the patient. The second update of data ar exhausted biface technique. That the info concerning the insertion Services(BTS) is explained as returning into the tiny print concerning the blood groups, members, contact details, etc. and also the donor with GIS. The update concerning the data once the donation of the blood by a donor isn't entered inside the system. Internet bank management system helps to take care of the information and quality of blood. This can increase responsibility, fault tolerance and accessibility.

Proposed System: - Proposed System is that the abstract style that defines the structure and behavior of a system. Associate design description may be a formal description of a system, organized during a method that supports reasoning regarding the structural properties of the system. It defines the system parts or building blocks and provides an idea from that product are often procured, and systems developed, which will work along to implement the general system.

Literature Survey:

Paper Name1: -The Internet of Things for Ambient Assisted Living.

Author Name: - A. Dohr, R. Modre-Osprian, M. Drobics, D. Hayn, G.Schreier.

Description: - The Internet of Things (IoT) is the logical further development of today's Internet. Technological advancements lead to smart objects being capable of identifying, locating, sensing and connecting and thus leading to new forms of communication between people and things and things themselves. Ambient Assisted Living (AAL) encompasses technical systems to support elderly people in their daily routine to allow an independent and safe lifestyle as long as possible. Keep in Touch (KIT) uses smart objects and technologies (Near Field Communication and Radio Frequency Identification) to facilitate telemonitoring processes. Closed Loop Healthcare Services take use of KIT technology and are capable of processing relevant data and establishing communication channels between elderly people and their environment and different groups of care-givers (physicians, relatives, mobile care providers). The combination of KIT technology (smart objects) and Closed Loop Healthcare Services results in an applied IoT infrastructure for AAL scenarios. Already applied IoT and AAL applications in telemonitoring and medication intake compliance projects show that these applications are useful and accepted by the elderly and that the developed infrastructure enables a new form of communication between people and people, people-topeople (P2P) communication. The personal communication between elderly people, their environment and relevant groupsof care givers is an important aspect in AAL. Through thecombination of KIT and Closed Loop Healthcare, a central AAL paradigm can be realized through the IoT, where the elderly live in their homes with smart objects, thus smart homes, communicating to the outside world in an intelligent and goal-orientated manner.

Paper Name2: -Internet Protocol over Wireless Sensor Networks, from Myth to Reality.

Author Name: Paulo AlexandreCorreia da Silva Neves.

Description: Internet Protocol (IP) is a standard network layer protocol of the Internet architecture, allowing communication among heterogeneous networks. For a given network to be accessible from the Internet it must have a router that complies with this protocol. Wireless sensor networks have many smart sensing nodes with computational, communication and sensing capabilities. Such smart sensors cooperate to gather relevant data and present it to the user. The connection of sensor networks and the Internet has been realized using gateway or proxybased approaches. Historically, several routing protocols were specifically created, discarding IP. However, recent research, prototypes and even implementation tools show that it is possible to combine the advantages of IP access with sensor networks challenges, with a major contribution from the 6LoWPAN Working Group. This paper presents the advantages and challenges of IP on sensor networks, surveys the state-of-art with some implementation examples, and points further research topics in this area.

Paper Name3: -Design and Implementation of Automated Blood Bank using Embedded Systems.

Author Name: BalaSenthilMurugan L, Anitha Julian.

Description: Automated Blood Bank is an associate work that brings voluntary blood donors and those in need of blood on to a common platform. The mission is to fulfill every blood request in the country with a promising android application and motivated individuals who are willing to donate blood. The proposed work aims to overcome this communication barrier by providing a direct link between the donor and the recipient by using low cost and low power Raspberry Pi B+ kit. It requires Micro USB of5V and 2A power supply only. Entire communication takes place via SMS (Short Messaging Service) which is compatible among all mobile types. "Automated Blood Bank" is an project that brings voluntary blood donors and those in need of blood on to a common platform. This project aims at servicing the persons who seek donors who are willing to donate blood and also provide it in the time frame required. Automated Blood Bank tries to assist victims/patients/those in want of blood. It is an endeavor to achieve dead set these people in want of blood and connect them to those willing to donate. The proposed work explores to find blood donors by using GSM based Smart Card CPU - Raspberry Pi B+ Kit. The vision is to be "The hope

of every Indian in search of a voluntary blood donor".

Paper Name4: - Are GSM phones THE solution for localization?

Author Name: -AlexVarshavsky , Mike Y. Chen , Eyal de Lara , Jon Froehlich .

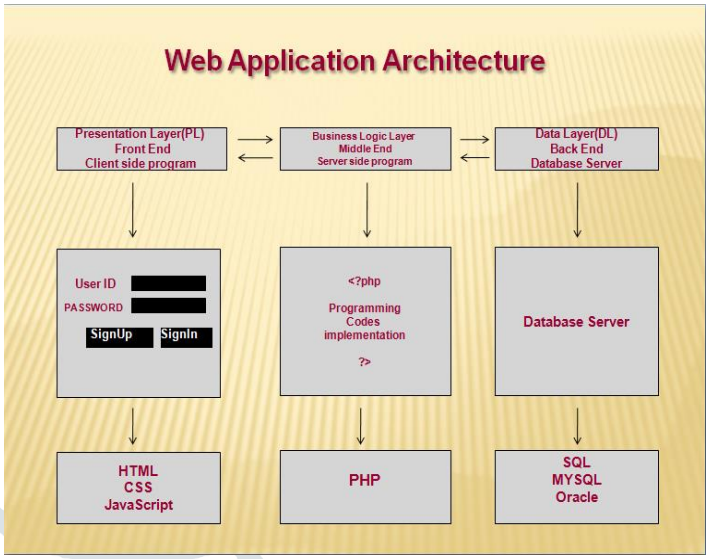
Description:-In this paper, we argue that localization solution based on cellular phone technology, specifically GSM phones, is a sufficient and attractive option in terms of coverage and accuracy for a wide range of indoor, outdoor, and placebased location-aware applications. We present preliminary results that indicate that GSM-based localization systems have the potential to detect the places that people visit in their everyday lives, and can achieve median localization accuracies of 5 and 75 meters for indoor and outdoor environments, respectively.

Paper Name5:- Bluetooth and WAP Push Based Location-Aware Mobile Advertising System.

Author Name: -Lauri Aalto, NicklasGöthlin, JaniKorhonen, TimoOjala.

Description: -Advertising on mobile devices has large potential due to the very personal and intimate nature of the devices and high targeting possibilities. We introduce a novel B-MAD system for delivering permission-based location-aware mobile advertisements to mobile phones using Bluetooth positioning and Wireless Application Protocol (WAP) Push. We present a thorough quantitative evaluation of the system in a laboratory environment and qualitative user evaluation in form of a field trial in the real environment of use. Experimental results show that the system provides a viable solution for realizing permission-based mobile advertising.

Architecture Diagram:



Math Model:-

In this project haversine formula is being used for calculating the distance.

The haversine formula determines the great-circle distance between two points on a sphere given their longitudes and latitudes. Important in navigation, it is a special case of a more general formula in spherical trigonometry, the law of haversines that relates the sides and angles of spherical triangles.

Let the central angle Θ between any two points on a sphere be:

$$\Theta = \frac{d}{r}$$

Where:

d is the distance between the two points (along a great circle of the sphere; see spherical distance),

r is the radius of the sphere.

The haversine formula hav of Θ is given by:

$$\mathrm{hav}(\Theta) = \mathrm{hav}(\varphi_2 - \varphi_1) + \cos(\varphi_1)\cos(\varphi_2)\,\mathrm{hav}(\lambda_2 - \lambda_1)$$

Where,

φ1, φ2: latitude of point 1 and latitude of point 2,

λ1, λ2: longitude of point 1 and longitude of point 2.

Finally, the haversine function (half a versine) of an angle θ (applied above to the differences in latitude and longitude) is:

$$\operatorname{hav}(\theta) = \sin^2\left(\frac{\theta}{2}\right) = \frac{1-\cos(\theta)}{2}$$

To solve for the distance d, apply the archaversine (inverse haversine) to the central angle Θ or use the arcsine (inverse sine) function:

$$d = r\,\operatorname{archav}(h) = 2r\arcsin\left(\sqrt{h}\right)$$

Where h = hav(Θ), or more explicitly:

$$d = 2r\arcsin\left(\sqrt{\operatorname{hav}(\varphi_2-\varphi_1)+\cos(\varphi_1)\cos(\varphi_2)\operatorname{hav}(\lambda_2-\lambda_1)}\right)$$
$$= 2r\arcsin\left(\sqrt{\sin^2\left(\frac{\varphi_2-\varphi_1}{2}\right)+\cos(\varphi_1)\cos(\varphi_2)\sin^2\left(\frac{\lambda_2-\lambda_1}{2}\right)}\right)$$

Outcome:-

Fig.Home Page

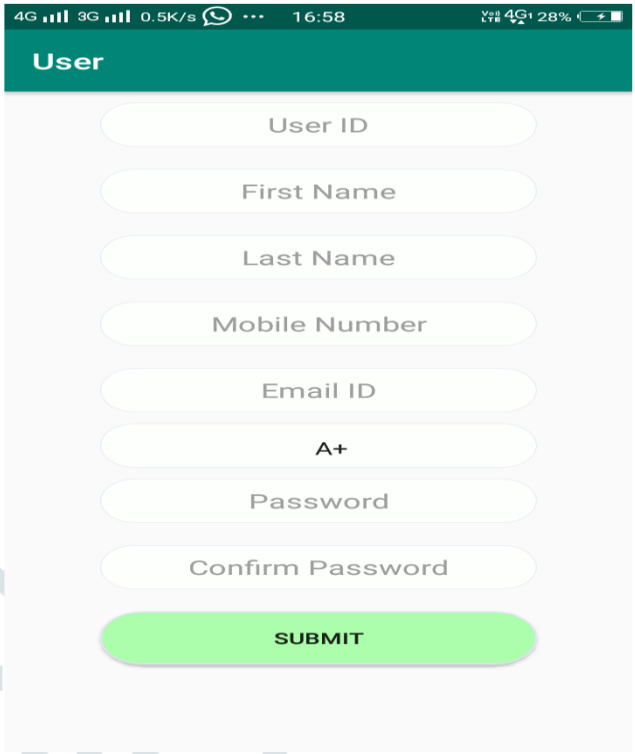


Fig.User Registration Login

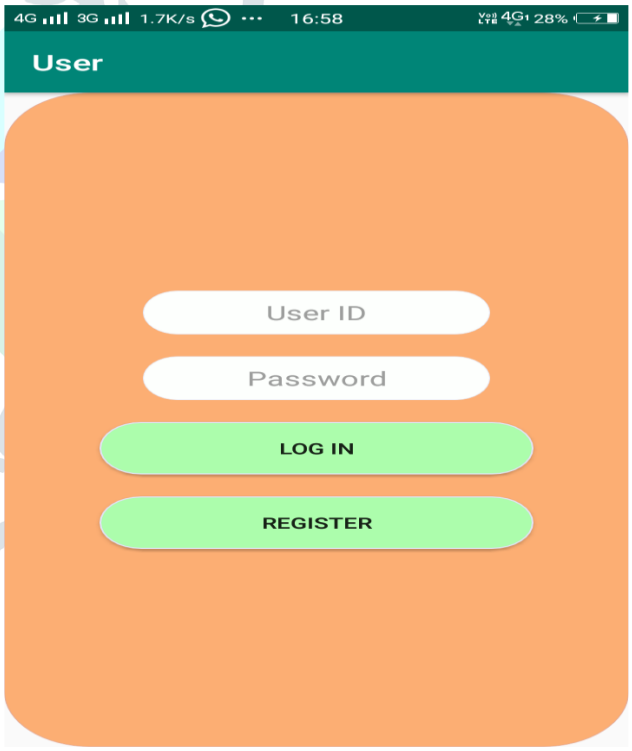


Fig.User Login Page

Conclusion:-We have planned a totally distinctive technique of donor accomplishment and information management system. As means as we tend to all recognize, typically this can be} often the first reasonably add BTS domain that addresses all the key parameters of donor accomplishment ways like increasing promotion, effective communication methods, donor issues in disaster management, donor motivation, direction additionally as donor self-deferral likelihood. The nice Blood question Project facilitates its users every blood donors and recipients to access the service any time anywhere with no refined hardware and computer code installation. Moreover, we've an inclination to stand live working on intensive testing of our model in world state of affairs in conjunction with relevant health care professionals and domain specialists therefore on develop an understanding of complete blood management system for the observation of donors, patients and identifying what information is required from concerned cluster of people. We've an inclination to hope correct implementation of our project can bring a serious modification in BTS state of affairs of SEAR and developing countries.

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