

Atomized Corona Patient Travelling History

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Abstract

The fast spread of coronavirus (COVID-19) around the world has put health services under an enormous strain. Turning to digital means for collating data on the spread of the virus, the associated symptoms, as well as the routes through which it may be spreading has been a common response. The situation, the associated technologies and the practices of their use vary across the globe and evolve rapidly. A free symptom monitoring app, Zoe-symptom tracker allows anyone to self-report COVID 19 symptom report and there occurring symptoms.

Keywords—Machine Learning, Covid-19 Symptoms, Hospitality, GPSTracking, Health Care System

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I. INTRODUCTION

Now days healthcare industry is fast development system because of learn new technology and use this knowledge in practical life, to take appropriate decisions regarding patient's health. Summarizing of all collected data it's called as analysis of that data. In our developing and technology dependent life we totally rely on gadgets especially smart phones. Today everyone has a smart phone. With this we get an opportunity to use technology in a better way so that it can be made useful to us. And it plays an important part in our daily life. With recent technological advancement of modern science people are now expecting the information about the location of any object for tracking purposes. Presently, we want more location-based services for being advanced and to save time and money also. GPS is a system which is already implemented and everyone can access it without any restriction. Having the facility of GPS to develop this system we need a GPS device to calculate the location from the information taken from GPS. Hence, we have chosen Android device to perform this calculation because Android mobile phone is cost effective and offers multidimensional purposes having some special built-in features like GPS service. Thus, this system is developed for location tracking of a group of people with a proximity alert system

The GPS, elaborated as Global Positioning System, is a satellite-based navigation system made up of a network of 24 satellites placed into orbit by the U.S. Department of Defense in 1973. GPS was originally intended for military applications, but in the 1980s, the government made the system available for civilians. GPS works in any weather conditions, anywhere in the world, 24 hours a day. There are no subscription fees or setup charges to use GPS. GPS was invented by the U.S. Department of Defense and Ivan Getting, at the cost of twelve billion taxpayer dollars. The Global Positioning System is a satellite navigational system, predominantly designed for navigation. GPS is now gaining prominence as a timing tool. Eighteen satellites, six in each of three orbital planes spaced 120° apart, and their ground stations, formed the original GPS. GPS uses these "man-made stars" or satellites as reference points to calculate geographical positions, accurate to a matter of meters. In fact, with advanced forms of GPS, you can make measurements to better than a centimeter. GPSs are very quickly becoming a standard in most new automobiles, and are even finding their way onto a variety of new cell phones.

The mapping devices can come in handy under a variety of circumstances. If we are thinking about purchasing a GPS or a device that has a GPS built-in, here are some of the benefits of having one. A GPS can help us to determine exactly where we are at any given moment. Not only can a GPS give us the name of the

street we might be traveling on, but many GPS systems can also give us the exact latitude and longitude of where you are located. On the other hand, Android mobile platform is becoming more popular to the users for its multi-dimensional purposes. Thus, this proposed system namely GPS-based Location Tracking System via Android Device uses GPS and any mobile phones having an Android operating system to track the location of a person whenever necessary.

System is a standalone system that can be installed on an android phone and can be used with valid login credentials. On installation and successful login into the application, a doctor can add a new patient, his personal information, medical information and also he can insert new medical conditions into the existing patient's medical records. The application allows doctor to insert various data fields regarding a patient including patient name, contact information, age, blood group, gender, medical condition, medication provided, date of visit which the system automatically takes in, etc. The system saves all the patient information in a database created in the android phone.

The application is designed for the doctors and hence not everybody can register into the application. Hence to overcome this for any user to register they need to get a Registration code which is provided by the hospital to which the doctor works or ones the doctor has verified his credentials the app market provides the registration code. After getting the registration code the doctor can set up his profile and login to the application. As and when he treats a patient he can key in the patient details into the application and also his condition, medication provided as well as note/suggestion to the patient. Once the patient details are keyed into the application the doctor can use it every time the patient visits him and insert the medical condition or look into his medical history for reference and based upon that he can provide medication. The doctor can also keep tab on the patients he treated on any particular date for his own reference

II. LITERATURE

In 2020, Celestine Iwendi et.al proposed health prediction system for covid patient using boosted random forest algorithm. Author proposes a fine-tuned Random Forest model boosted by the Adobos algorithm. The model uses the COVID-19 patient's geographical, travel, health, and demographic data to predict the severity of the case and the possible outcome, recovery, or death.

Boosted Random Forest Classifier is compared with Decision Tree Classifier, Support Vector Classifier, and Gaussian Naïve Bayes Classifier. The Boosted Random Forest algorithm provides accurate predictions even on imbalanced datasets.

The data analyzed has revealed that death rates were higher amongst the Wuhan natives compared to non-natives. Also, male patients had a greater death rate compared to female patients. The majority of affected patients are aged between of 20 and 70 years.

The healthcare industry is a vast industry that requires real time collection and processing of medical data. Moreover, at the core of this industry lies the problem of data handling which requires real time prediction and dissemination of information to practitioners for quick medical attention. Artificial Intelligence (AI) has emerged as the breakthrough technology of the twenty-first century and has found multiple applications in fields from weather prediction, astronomical exploration, to autonomous systems.

To estimate the number of deaths in Peru due to COVID-19. Design: With a priori information obtained from the daily number of deaths due to CODIV-19 in China and data from the Peruvian authorities, we constructed a predictive Bayesian non-linear model for the number of deaths in Peru. Exposure: COVID-19. Outcome: Number of deaths.

Assuming an intervention level similar to the one implemented in China, the total number of deaths in Peru is expected to be 612 (95%CI: 604.3 - 833.7) persons. Sixty-four days after the first reported death, the 99% of expected deaths will be observed. The inflexion point in the number of deaths is estimated to be around day 26 (95%CI: 25.1 - 26.8) after the first reported death.

The number of deaths is rising quickly. As of Jan 24, 2020, 835 laboratory-confirmed 2019-nCoV infections were reported in China, with 25 fatal cases. Reports have been released of exported cases in many provinces in China, and in other countries; some health-care workers have also been infected in Wuhan.

Airborne precautions, such as a fit-tested N95 respirator, and other personal protective equipment are strongly recommended. In December, 2019, a series of pneumonia cases of unknown cause emerged in Wuhan, Hubei, China, with clinical presentations greatly resembling viral pneumonia.

Deep sequencing analysis from lower respiratory tract samples indicated a novel coronavirus, which was named 2019 novel coronavirus (2019-nCoV). Thus far, more than 800 confirmed cases, including in health-care workers, have been identified in Wuhan, and several exported cases have been confirmed in other provinces in China, and in Thailand, Japan, South Korea, and the USA. With the Tablet and smart phone development, the development of mobile applications (mobile Apps) has become more desirable and diversified in users perspective. In this study, an Android Apps was developed for an outpatient physical therapy clinic. The purpose of this handheld healthcare information system is to record medical processes and patient appointment. During the App development, the medical system's environment characteristics were observed and a scenario

simulation method was used in the comparison of efficiency between traditional paper-based approach and App system

Online refreshment of the source updates introduces processing and disk overheads in the implementation of the warehouse transformations. This paper considers a frequently occurring operator in active warehousing which computes the join between a fast, time varying or burst update stream S and a persistent disk relation R , using a limited memory. Such a join operation is the crux of a number of common transformations (e.g., surrogate key assignment, duplicate detection etc.) in an active data warehouse. We propose a partition-based join algorithm that minimizes the processing overhead, disk overhead and the delay in output tuples. The proposed algorithm exploits the patio-temporal locality within the update stream, and improves the delays in output tuples by exploiting hot-spots in the range or domain of the joining attributes, and at the same time shares the I/O cost of accessing disk data of relation R over a volume of tuples from update stream S . We present experimental results showing the effectiveness of the proposed algorithm.

III. FLOWCHART

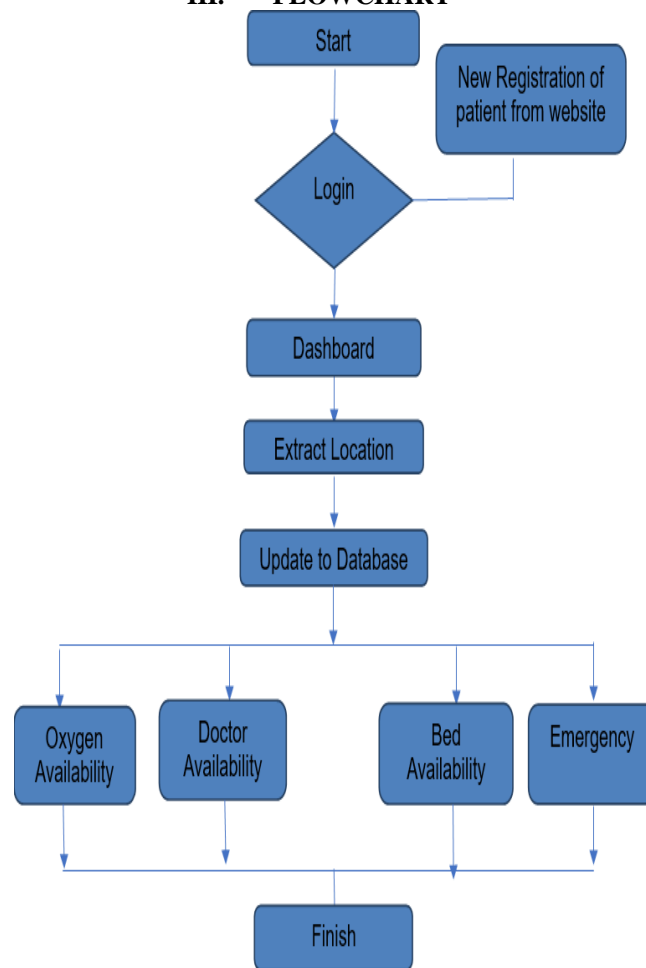


Fig.1 Flow Chart for Patient's App

Each time new patient visits to doctor, doctor will register the patient details through android device. The system will not suggest the doctor of the disease but will just store the information provided by the doctor. Each time the patient visits the doctor the doctor will be able to see all previous medical history of the patient which was diagnosed and treated by that particular doctor. This will enable maintaining secrecy of patient's medical history and using that medical history for better medical examination. Along with the system will also store the treatment suggested by the doctor for the suspected disease as well as the any medical prescription that will be suggested by the doctor. The system will also help reduce the pain of maintain the billing information for the patient as it will also have an option for entering the patient. All of this information will be stored on sql so that any doctor can access the information on the go and also maintain a record any patient examination done even while travelling. This information from the cloud will then be populated in the data base for further data processing.

IV. BLOCKDIGRAM

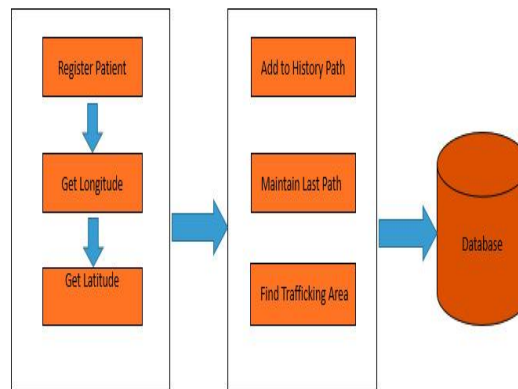


Fig.2Block Diagram of Updating Database

Block diagram will explain who the database is connected to the system which is app. There are two roles in this project. The first one is Doctors role which is on website and the second is patient's role which is on Application, doctor's role is to register patient form website by taking his/her information. Whichever is the email id of patient and phone number of will act as login email and password for application respectively. The following diagram explains the data taken by the application is store in database.Only doctor or the hospital can register the patient by updating patient's information. Whatever the information is registered will go to database and keep it updated. After the login in mobile application the dashboard will update after every 30 sec and patient's longitude and latitude will be updating in database.

V. METHODOLOGY

- 1.Login: Doctor has to login with a valid username and password, if s/he does not have a profile login s/he has to go to the login page. Below are the screenshots of the login page.
- 2.home: The page show new register patient through web and personal information of patient.
- 3.add patient: The page gathers all the patient personal information. Each time new patient visits to doctor, doctor will add the patient details through following form. The system will not suggest the doctor of the disease but will just store the information provided by the doctor.
- 4.Allot Kit: The page takes to show the allotted kit of patient and medical information of patient.
- 5.view patient: This page pulls out medical history of the patient using patients name and also provides an option to insert new medical entry for that particular day. Each time the patient visits the doctor the doctor will be able to see all previous medical history of the patient which was diagnosed and treated by that particular doctor his will enable maintaining secrecy of patient's medical history and using that medical history for better medical examination.
- 6.Temp.Diagnosis: The page pulls out temperature of patient.
- 7.heart rate: The pace takes to show the heart rate of particular patient.
- 8.oxygen: The page takes to show the oxygen rate of separate patient.
- 9.At risky: The page gathers all the medical information of patient and medical history of patient. The page show final report of patient and pull out risk or no risk of patient.

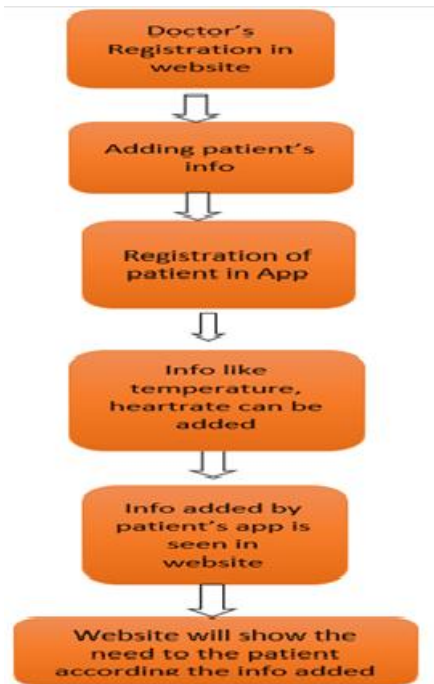


Fig 3. Water Flow Methodology

VI. CONCLUSION

In this project we are developing the Android App and web application for healthcare system which will help to automate all the manual work. The purpose of this system is, using android app Doctor can register the patient and if patient is already registered then Doctor can see the patients' medical history. All the information will be served to device from cloud and will be saved on cloud. After processing on data, this data is stored in data warehouse. This will be helpful for medical analysis.

Technology moves at a rapid pace, and the world of GPS tracking is no exception. Trackers are smaller and more powerful than ever, and these devices continue to evolve and improve. If you're not familiar with the latest advancements in GPS technology, you may be in for a surprise. GPS is a network of satellites that continuously transmit coded information which makes it possible to identify location on earth. The spread of COVID-19 in India depends on a lot of factors such as religious congregation, social contact structure, low testing rates, identification of COVID-19 suspects, measures such as lockdown and sealing of hot stop, etc. The results of this paper will be useful in managing the healthcare resources in advance and for the development of good nursing.

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