

Mobile cloud computing in smart healthcare Applications

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Abstract:

For urban residents, the Smart Healthcare idea is increasingly prevalent. This service's primary purpose is to provide patients with healthcare data. Using mobile communication and sharing in real time is necessary. Data processing and analysis are all part of this. As a result, cloud computing allows individuals to connect and access healthcare-related data. Data-related tasks like as sharing, processing, and analysis may be offloaded to mobile users for patients via mobile cloud devices, which can play a critical role in mobile cloud computing. Using this service, hospitals and clinics will be able to provide smart healthcare to their patients in a cost-effective manner. The usage of cloud computing will guarantee that patients get high-quality service.

Keywords— Mobile cloud computing, HealthCare, Patient records, Quality service.

1. Introduction

Without a physical or established connection, mobile communication enables the transfer of speech and multimedia data through a computer or mobile device. A mobile phone is now a need for almost everyone, thanks to the rapid advancement of mobile communication. Using a mobile communication infrastructure, independent of a physical connection, users may send and receive voice and data. Mobile communication technologies not only help companies by speeding up and streamlining operations, but they also improve the quality of people's lives in the long run. It doesn't matter whether it's called mobile communication or mobile computing; they're simply different labels for the same capability to utilise mobile technology while moving about.

Module

There are three main modules in this project, each module is dependent on the other to protect the files.

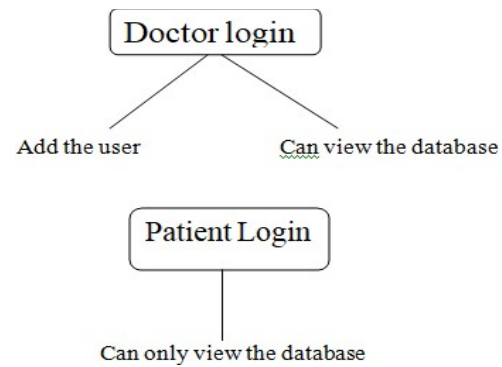
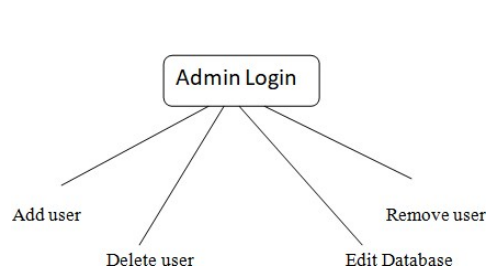
Module Description
Data Owner
User
Cloud
Data Owner

2. Materials and Methods

Owners of Data must sign up for an account. They may be in any arrangement. As the world's population has grown, so has the need for communication grown along with it. Humans are always working to develop communication methods that are both simple and fast. One example of progress in technology is the development of the telephone. Every new generation is denoted by a lone forward step. Up to the introduction of the first mobile phone, larger phones have undergone constant development. Beginning in the late 1990s with 1st generation mobile technology, this journey has continued till 3rd generation mobile technology, which completely alters the communication method. As a result of the third generation of mobile phones, the world has shrunk to the size of an urban slum. Mobile computers came in various forms in the mid-1990s, including laptops, PDAs, PDA phones, and other mobility devices such as wearable technologies. Also, in order to make this kind of mobility equipment more safe and dependable, we must utilise the correct technologies. We have a wide range of mobile communication technologies accessible today, including 2G, 3G and 4G, as well as WiMAX and other next-generation technologies as Wipro, EDGE, and GPRS. Security and transmission protocols for mobile computing and mobile communications are based on various security standards and protocols. This section has covered a wide range of mobile computer and communication systems in depth. Where do wired or wireless technologies compare to those found in mobile devices. must submit their personal information in order to create an account. Name, email address, profile picture, and phone number are all required information.

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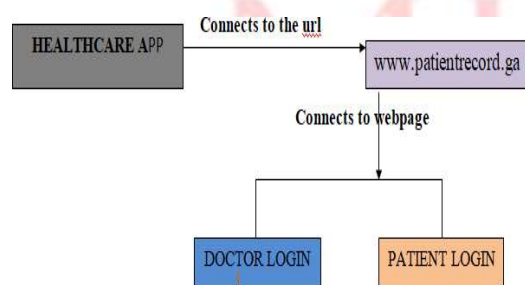


User

In order to be saved, the user must also register their personal information. After completing the registration process, users will be able to access their accounts by entering the username and password they chose at registration. The user has access to all of the files that the Data Owner has uploaded. Users may put in the password and relevant files after an account has been established.

Cloud

Cloud Data Owner is responsible for uploading data to the cloud on their behalf. In The patient will benefit greatly from being able to access their data through the cloud. It is possible for the user to see all of the files stored in the cloud, and the service also offers download capabilities. The cloud serves as a repository. As the cloud's backend storage, we're using a SQL database. their database record in lieu of transporting printed reports. They may access their reports from any device, including smartphones, tablets, and computers. This kind of database may hold a greater volume of data, and the user has access to the whole database's history. The consumers will have no problem accessing it since it is so easily accessible. This method may be used by individuals in both urban and rural areas. Storing everyone's data is a must-have feature.



1 Doctor login

2 Patient login

3 Admin login

SQL

RDBMSs and relational data stream management systems (RDSMSs) utilise SQL, a domain-specific programming language intended for handling data stored in a relational database management system (RDBMS) (RDSMS). With SQL, you no longer had to specify how to reach a record, such as with or without an index, as you do with earlier read/write APIs like ISAM or VSAM. SQL also introduced the notion of accessing multiple records with a single command. With roots in relational algebra and tuple relational calculation, SQL has a wide range of statements that may be grouped as sublanguages. These include: a data query language (DQL), a data definition language (DDL), a data control language (DCL), and data manipulation (DML) Querying data, manipulating data (insert, update and delete), defining data (creation and change of schemas), and controlling access to data are all included in SQL's scope. Because of this, many people think of SQL as being a declarative language, although it really has a lot of procedural features as well.

As stated in his seminal 1970 article, "A Relational Model of Data for Large Shared Data Banks," SQL was one of the first commercial languages for the relational model developed by Edgar F. Codd. It was adopted by the American National Standards Institute (ANSI) in 1986 and the International Organization for Standardization (ISO) in 1987 despite not fully conforming to Codd's relational model. SQL became a standard of the two organisations in 1987. Since then, the standard has undergone many revisions to add more capabilities.. Despite the existence of such standards, the majority of SQL code has to be adjusted in order to work properly across various database platforms.

PHP

Web development scripting language PHP may also be used as a general-purpose programming language on the server. The PHP reference implementation was initially developed by Rasmus Leadoff in 1994 and is currently provided by The

PHP Group.. PHP used to stand for Personal Home Page, but it's now an abbreviation for PHP Hypertext Pre-processor, which is a recursive form of PHP.

Web template systems, content management systems, and web frameworks may all be used in conjunction with PHP code that is embedded in HTML. PHP code is often executed by a PHP interpreter, which may be either a server-side module or a CGI executable on the client. The produced web page is combined with the results of the interpreted and executed PHP code on the web server. To build standalone graphical applications, PHP code may also be run through a command-line interface (CLI). The Zend Engine, which powers the standard PHP interpreter, is open-source software distributed under the terms of the PHP License. PHP has a large number of ports and may be used for free on almost all platforms and operating systems.

Apache2

Open-source and free, Apache is a cross-platform web server published under the Apache License 2.0. It is also known as the Apache HTTP Server. The Apache Software Foundation coordinates the development and maintenance of Apache on behalf of a worldwide open community of developers. 92 percent of Apache HTTPS Server copies run on Linux distributions as of 1 June 2017. The Apache HTTP Server is cross-platform. Non-Unix operating systems, such as Windows and OS/2, now have better support with the 2.0 version. OpenVMS and NetWare were able to run older versions of Apache thanks to porting efforts.

After work on the NCSA code stopped on the Apache HTTPd server, it was originally based on the NCSA HTTPd server. In the early days of the Web's development, Apache was a major player, rapidly displacing NCSA HTTPd as the leading HTTP server. It served more than 100 million webpages for the first time in 2009 using this software. Approximately 46% of all websites were served by it as of July 2016, along with 43% of the top million websites.

3. Conclusion

App that allows physicians to update the medical records of their patients. It's convenient for patients to be able to access their medical data at any time, from any location, and it lessens the need for them to carry printed documents about with them. This software will come in handy if they need to quickly gather all of their prior records in an emergency. It's an easy-to-use software that may be used from any location. Patients' medical records are kept on the cloud.

Work to be Done in the Future

Static internet protocol will replace dynamic internet protocol in the comprehensive future development. Hosting and accessing the Localhost web server.

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