DIFFERENCES OF CLOUD-BASED SERVICES AND THEIR SAFETY RENEWAL IN THE HEALTH CARE SYSTEM.

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Abstract - *The contribution of cloud-based services to health care facilities is a major problem in the 21st century. In this paper, presenting its benefits and tools to hospitals, clinics and diagnostic centers, applications and services already exist are categorized, which basically affects: data storage, computing capabilities, network, PaaS, SaaS, data analytics, business. ingenuity and project management. Then, other issues of protection and risk assessment in cloud-based services are thoroughly analyzed along with other studies. In addition, a risk-based analysis of the comparative risk between safe and unsafe cloud systems is included. Finally, conclusions are presented with a proposed future work.*

1. INTRODUCTION

Nowadays, cloud computing has interfered in all sectors of human life. Marketing, education as well as healthcare are three of them which have been web digitalized. As far as the healthcare is concerned, considering how many diagnostic tests and therapies, like myopia laser and axis tomography, were not feasible until the 90s decade, is enough in order the importance of cloud services to be conceptualized. This happens because such clinical operations require storage of many patients' data (e.g. records from medical ultrasounds) and simultaneously an easy, fast access to them. This can be achieved only through secured cloud systems. Imagine for a moment how many terabytes in external or portable disk drives would be necessary for every hospital and every doctor if the interactive cloud storage systems did not exist This means that their contribution to the healthcare sector should be thoroughly and methodically studied as far as the benefits, the offered tools and the threats/risks are concerned. More specifically, these three mentioned factors must be categorized in a manner that will help all employees, as well as scientists in the Information Technology (IT) sector of Healthcare

2. LITERATURE REVIEW

Literature survey is the most important step in software development process. Before developing the tool it is necessary to determine the time factor, economy and company strength. Once these things are satisfied, ten next steps are to determine which operating system and language can be used for developing the tool. Once the programmers start building the tool the programmers need lot of external support. This support can be obtained from senior programmers, from book or from websites. Before building the system the above consideration are taken into account for developing the proposed system

Revolutionary Impact for Cloud Solutions on Healthcare It is challenging to bring about changes in the healthcare sector due to many legacy programs and very sensitive personal information. Globally, many governments are experiencing countless problems in their efforts to digitize health care services. The healthcare structure as a business is facing unprecedented challenges due to expected growth and growing demand. [1]

Predicting the real-time threat of cloud-based assets using big data statistics with reports of cloud-related violations becoming a daily occurrence, businesses looking for secure cloud infrastructure that can support their applications and data in the cloud. Current cloud security solutions have been struggling to keep up with the rapid deployment of organization data and applications in the cloud. Traditional IT security services have long provided current information about vulnerability and attack, but no longer apply to the latest threat. But legacy security solutions work for silo and can easily ignore the big picture. Older tools no longer work to prevent attacks. There is therefore a need for greater security awareness and security measures for all businesses using cloud infrastructure. A comprehensive approach to cloud protection is needed to respond quickly to changes in the organization's environment. This approach should include monitoring tools to bring the latest security intelligence to cloud infrastructure as well as big data analysis to predict and prevent future threats. This research paper proposes a real-time security solution that provides predictive threat analysis to protect IT resources in the cloud. This model can be used as a proposed security mechanism where organizations work together to share the latest threats to predict threats, thus allowing businesses to deliver new products and services quickly, without disruption or security breaches. [1] [2]

Cloud Sourcing Risk Analysis in the Health and Community Health Industry The task of protecting health care

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information systems (HIS) from instant online security risks is integrated with cloud computing. HIS data and resources are naturally shared with other outreach programs, decision making, emergencies, and other health-related concepts. In the face of a host of multi-stakeholder needs, diverse, diverse cloud models are embraced across the healthcare and public healthcare industry, which undermines the real origins of sharing and deploying cloud computing in this domain. The mistaken view of security is one of the main obstacles to the adoption of the cloud as a de facto standard in the field of health care and public health. In this paper, we demonstrate similarities in the security features of cloud computing models, by identifying key assets on HIS, and evaluating their impact on HIS. We also assessed the risk exposure of cloud computing models by performing key analyzes. To the best of our knowledge, this is the first study of its kind of risk analysis of cloud computing models to demonstrate its HIS validity. [3] [4]

How Healthcare Can Benefit from Data Integration In recent years, healthcare institutions have been looking for ways to improve levels of patient care and make better informed clinical decisions. They have also been endlessly searching for ways to cut costs and make better business decisions. This is now possible through digitization and big data. Today, the digital transformation of healthcare institutions has also been enhanced by the increased integration of the Internet of Things (IoT) that also generates data. These innovations have helped the industry enhance efficiencies by streamlining processes while enabling access to the vital data they need to make these important decisions. Smart devices like wearables along with cloud technology and increased connectivity have brought about the seamless access to personalized medicine driven by data integration and analytics. However, according to Verizon, the level of IoT adoption in the industry is still comparatively low with only an 11% increase. When compared to manufacturing that saw an increase of 84% over the same period of time, you can say that healthcare still has a long way to go. [5][6]

Compared to the security and privacy issues of the e-health-based cloud system, it does not provide reliable and accurate access control requirements. A patient may not have access to his or her confidential information without following HIPAA rules. There is a problem of accepting threats to the security and privacy of patient health data, as well as the common belief that these cannot be adequately addressed [7].

LIMITATIONS:

a) Patient's data can be shared.
b) Not secured.
c) Chance of privacy disclosure

3. PROPOSED METHODOLOGY:

The proposed scheme offers an eye-catching categorization of cloud benefits and threats in the healthcare sector providing many important tools and applications. In this way, the information exchange and management are boosted because less time is consumed[8]. Adopting cloud services in health sector demands that security issues be taken into consideration. This is made clearer below where some major web-based dangers are analyzed. Cyber-attacks and the fact that authorized users (doctors, nurses and patients) lack knowledge of technical issues are the two most important challenges[9][10].

ADVANTAGES:

a) No chance of data loss.
b) Highly secured and trustable.
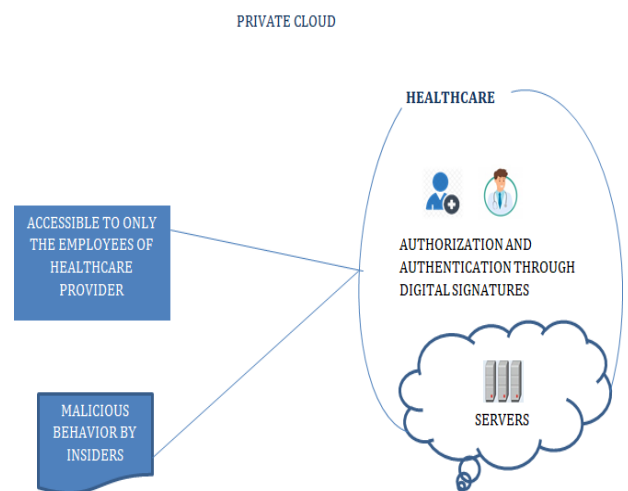c) Access authentication with strong passwords and authorization

SYSTEM ARCHITECTURE:

Fig: 3.1 System Architecture

3.1 IMPLEMENTATION:

a) Collect data from "AllRecipes.com" as we searched item name.
b) Collect the reviews of the selected recipe

Finally we found that review type (Negative, positive and neutral) and classify the reviews

4. RESULTS & DISCUSSION

1. Doctor: The doctor checks the health of the patients and sends reports to the patients.

2. Patient: Patients can book a slot for checkup and view their health reports.

3 Dashboard module: In this module, patients can view and book their appointments on which day they need.

4. Appointments module: In this module, Doctor's can view the booked appointments for treatment, and he can conform the appointment of the patient. After treatment he can also able to send a report to the patients.

5. View Schedule: In this module, patients can view the appointment timings after booking the appointment his/her interested day.
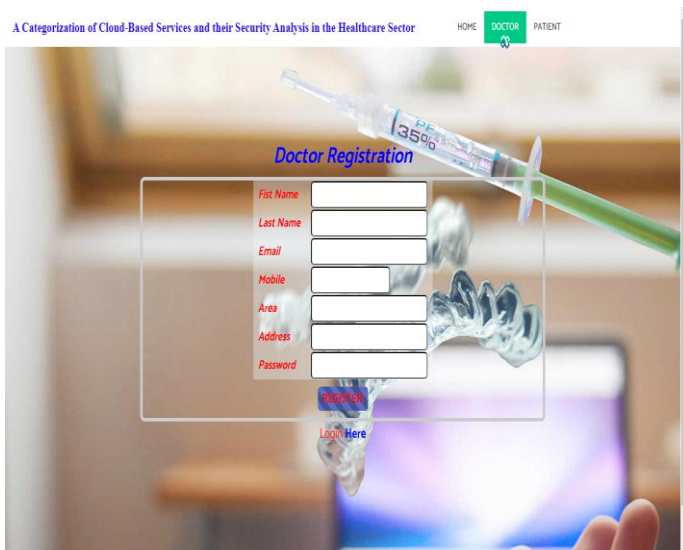

Fig:4.1 Home page
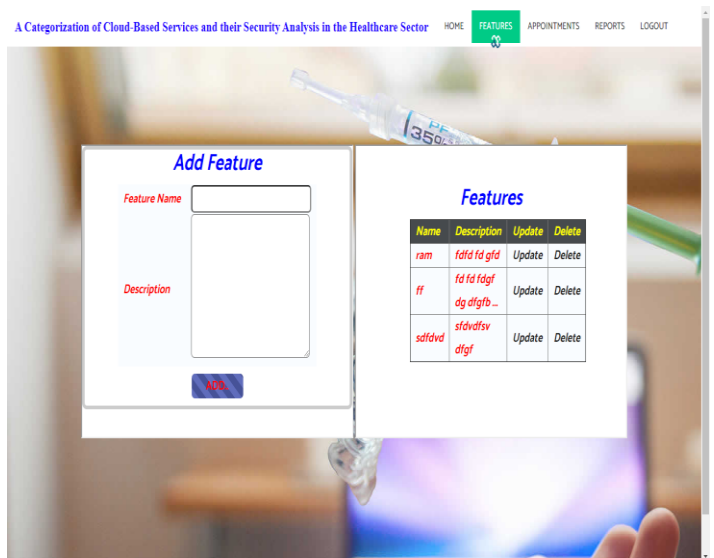
Fig 4.2:Doctor registration

Fig 4.3: Doctor login

Fig 4.4: Features

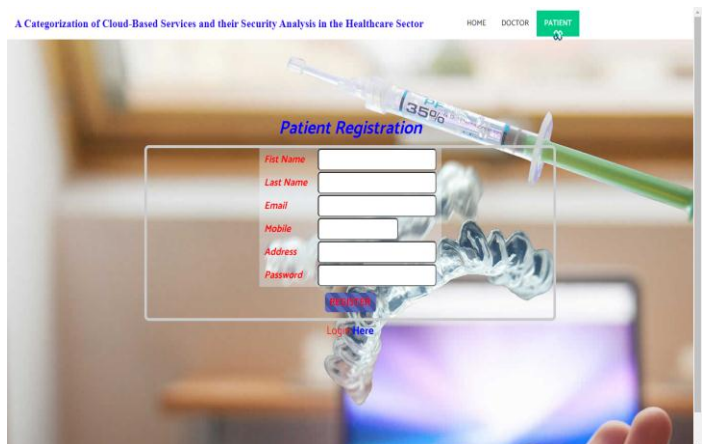Fig 4.5: Patient Registration
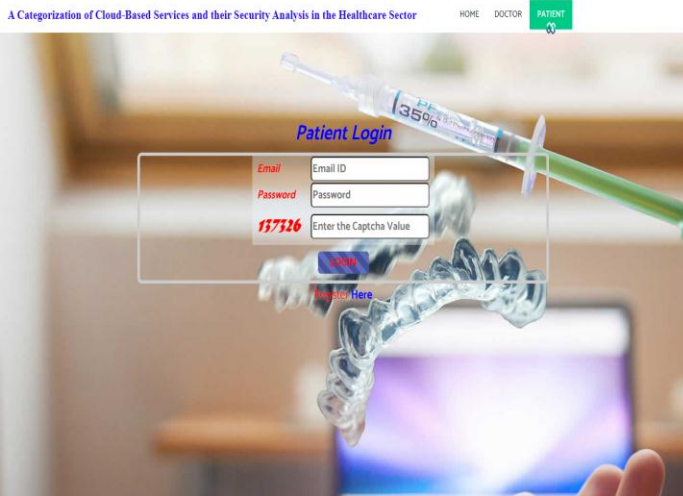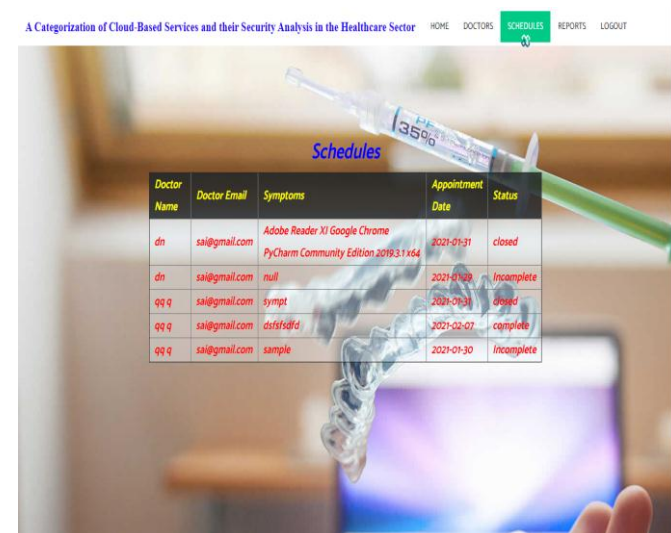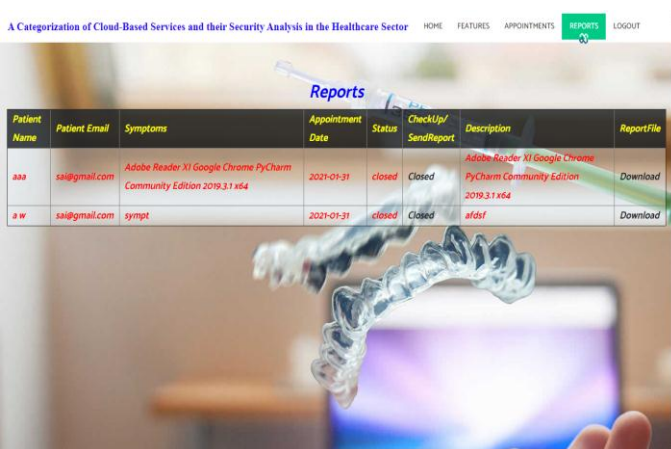
Fig 4.6: Patient login

Fig 4.7: Schedules

Fig4.8:Reports

5. CONCLUSION

In this paper we are implementing an eye-catching categorization of cloud benefits and threats in the healthcare sector providing many important tools and applications. In this way, the information exchange and management are boosted because less time is consumed. This fact is a necessary precondition for the implementation of the future trends which are next described.

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