

MEDICAL E-COMMERCE IN CLOUD ENVIRONMENT

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ABSTRACT

In this work the functioning of Cloud Environment and the possible use or impact it may have on current SCM Registry systems and the role of legal experts are described. The main purpose of this medical booking store system is to take the entire medical store online so that it can reach the customers 24/7. Cloud computing is used by medical E-commerce sites to ensure a high level of service anywhere in the world at any time. Cloud service providers are recommended to medical E-commerce shops depending on their service quality. Impatient clients may abandon a certain medical E-commerce shopping cart due to poor response during online buying. Cloud service providers are recommended to medical E-commerce merchants depending on their service quality. Impatient consumers may leave a particular medical E-commerce shopping basket owing to sluggish response during online purchasing. For a medical E-commerce company, this is very tough to bear. The effect of an idle virtual machine on consumer frustration during medical E-commerce purchasing has also been investigated. The study's main goal was to present a stochastic scheduling policy and use probability generating functions to generate outcomes. The model's findings may be very helpful for a medical E-commerce company dealing with client impatience in order to build a service system that provides acceptable service quality.

Keywords: Cloud Computing, E-Commerce, Amazon EC2, Supply Chain System.

I. INTRODUCTION

Medicine management is the very essential things in daily routine for old peoples. Sometime medicine cant available at the local pharmacist, due to this issue peoples didn't get right medicine on time. In this work we proposed a online medicine buying and selling platform to end user with secure environment. User can search the medicine by different parameters such as name, disease as well as manufacturer names etc. This work we also proposed a dynamic stock management of medicine for effective supply chain management. (sanatorium-received pneumonia), and VAP (ventilator-related pneumonia) based totally on exclusive infections, among which CAP money is owed for a larger part. because of the distinctive range of pathogens,

There are many online pharmacies available all over the world but Most of applications recently introduced drugstore that offers top quality generic as well as trademark medications at reasonable price. There are many benefits of online pharmacy as follows: Easy to access, all you need to do is to type on a search engine such as Google or Bing the words "online pharmacy." We may possibly browse all the way through online reviews and user feedback to help you settle on the caliber and legitimacy of a prospective pharmacy that you want to buy medicine from. Most of our savings have been utilized in our medicines due to the high price of Branded medicines and the people are not aware of the alternatives to these medicines We have designed a system that will : Provide the all kind of medicine that is alternate to the branded ones. The undergoing project is used to prescribe the medicine that is the substitute to the branded ones. It will help user to know about the doses warning recommendations etc. It will allow user to know more about all medicine through the news updates and also share their feedback regarding the medicines.

II. RELATED WORKS

[1] Cloud computing is one of the most rapidly evolving technologies. It can be used to store and manage data in a variety of corporate organisations. Cloud computing is being used in the healthcare industry to securely store patient data and medication information. This approach offers a variety of services on demand. Lena Griebel, et al., 2015 analysed a number of studies to identify an important current research area in cloud concepts for healthcare.

[2] Every firm in today's digital environment generates a tremendous amount of data on a daily basis. The medial domain also generates a considerable amount of data concerning patients, prescriptions, clinical test results, and employment information, among other things. Due to the rapid rise of large amounts of data, new

ways for analysing data in real time are required. Various strategies for analysing healthcare data are available through cloud computing systems. It has a number of advantages, including lower costs, more storage space, and scalability. Sobeslav V et al., 2017 investigate the innovative cloud computing technology in biomedicine. The primary goal of this study is to adapt cloud computing concepts to the field of biomedicine.

[3] Information management systems, whether web-based or information delivery systems, are systems that are used to manage information. These types of systems carefully manage data in papers and borders that are both easy to understand and understandable. Management has existed for a long time, but it was not widely accepted until the age of technology, such as the Internet or the portable computer. The content saved in the system is in a native format, allowing for quick retrieval of data. During the retrieval of information, most content management systems have several processes integrated in them. They also enable capabilities like search, user interaction, and customization, all of which enhance the user experience.

[4]Medical system accessible via the internet This web application is utilised on mobile phones and tablets, and it runs on both Android and iOS. The web application is used to place orders and provides discounts to web application users. Because it includes a variety of characteristics, it has shown to be useful in the management of drug prescriptions. It allows users to keep track of which prescription medications they need and when they need to take them. The following are some of the benefits:

1. It allows consumers to order medicines from a faraway location. The following are the restrictions:
2. The user can place an order for drugs that are currently available.
3. Despite its fluidity and speed, the interface may not be straightforward enough for users.
4. It does not display the drug's composition, which would allow users to know if there are any side effects from taking the medication.

III. BACKGROUND

There are many online pharmacies available all over the world but Most of applications recently introduced drugstore that offers top quality generic as well as trademark medications at reasonable price. There are many benefits of online pharmacy as follows: Easy to access, all you need to do is to type on a search engine such as Google or Bing the words “online pharmacy.” We may possibly browse all the way through online reviews and user feedback to help you settle on the caliber and legitimacy of a prospective pharmacy that you want to buy medicine from. Most of our savings have been utilized in our medicines due to the high price of Branded medicines and the people are not aware of the alternatives to these medicines. We have designed a system that will : Provide the all kind of medicine that is alternate to the branded ones.

IV. SYSTEM ARCHITECTURE

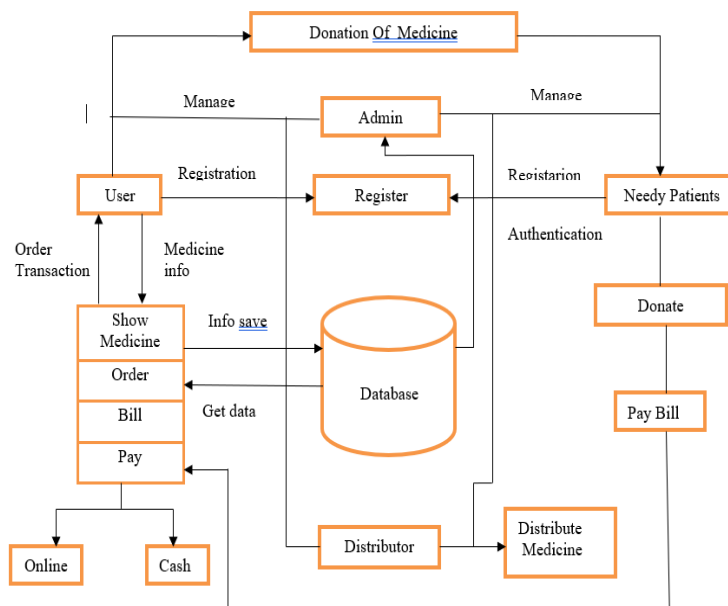


Fig 4.1: Block Diagram

V. PROPOSED SYSTEM

The proposed model is tailored for a medical Ecommerce application that takes advantage of cloud computing's many advantages. Infrastructure as a Service (IaaS) is provided by a Cloud Service Provider (CSP) for the medical E-commerce application. CSP supports medical E-commerce sellers with hardware, software, servers, storage, and other infrastructure components. It also aids with maintenance, data backup, and disaster recovery planning. The basic responsibility of the medical E-commerce company is to purchase drugs, list them, handle orders, receive payments, and deliver the medicines Figure 4 depicts the internal working model of a cloud-based medical E-commerce platform. Clients access the medical E-commerce website, browse the site, look for the prescription that is prescribed, add the things to the shopping basket, finalise the items, and payment and delivery details are collected. In order to obtain steady state solutions using a static approach, the model ignores information about complex shopping behaviours and focuses exclusively on two primary services The first service, which is required, is adding products to the medical Ecommerce shopping cart, and the second service, which is optional, is purchasing the drug. IaaS is provided by a Cloud Service Provider (CSP), which allows medical E-commerce merchants to reserve an appropriate virtual machine image of their required capacity and pay only for the resources they use. These virtual machine images can be in any of the following states: normal (switched on and functioning), idle (turned on but not functioning), or shut off. After completing service for a long period of time, VMs can become inactive [37]. Idle VMs were not decommissioned, according to the study, and are still running on the actual host. These idle virtual machines waste CPU, memory, and storage resources that could otherwise be utilised by active machines, resulting in performance loss. If the performance is poor, customers will have to wait extended periods of time for service, and they will unintentionally abandon the cart. This may result in the cloud service provider losing market share in the business sector. The proposed model assumes that the cloud provider assigns each medical E-commerce application to a separate virtual machine, and that the $M / / G 1 [] X$ queueing system acts as an internal queue for each virtual machine instance on the physical computer. After serving the request for an extended length of time, the virtual machine may become idle. If an idle virtual machine is not removed from the physical host, it consumes CPU, storage, and memory that may be used by other virtual machines

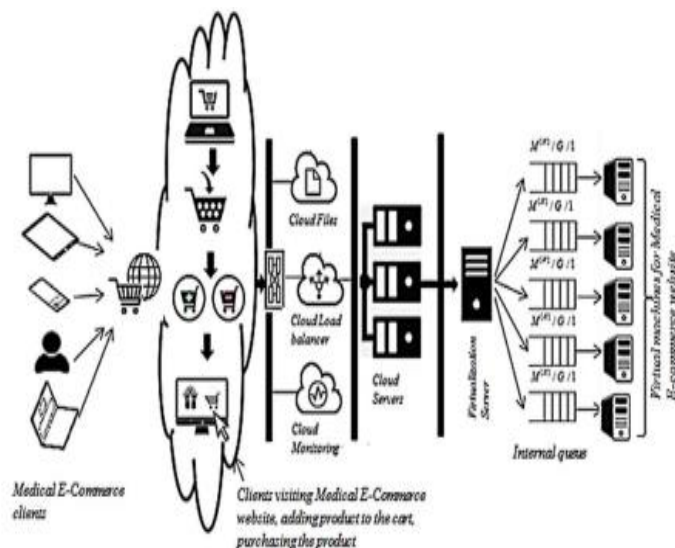


Fig. 4. Proposed framework for a medical E-commerce application deployed in cloud.

Fig 5.1: Proposed Model

The impact of an idle VM while providing service to a medical Ecommerce application, which could result in cart abandonment. By integrating the reneging factor, a stochastic model with a $M / / G 1 [] X$ queueing solution is proposed. This model uses probability generating functions to produce steady-state outcomes and has covered certain unique scenarios.

5.1. Hypothesis for the cloud medical E-commerce analytical model that has been proposed

The following hypothesis has been well-defined for the cloud medical E-commerce model:

Hypothesis 1:

In this model, our interest is in M / / G 1 [] X queueing framework. Medical E-commerce client's request arrives in batches of size k to the Virtual Machine. Batch of tasks arrive in a compound Poisson process, and they are given in a one-by-one service in an FCFS fashion.

Hypothesis 2:

Let the first order probability for a batch of k tasks be c_k ($k = 1, 2, 3, \dots$) over a short time interval $(t, t + \Delta t)$, with $c_0 = 1 - \sum_{k=1}^{\infty} c_k$ and $c_k > 0$, the mean task arrival rate.

Hypothesis 3:

All clients must place their medications in the medical E-commerce buying basket. In addition, the client has the option of purchasing the medicine or leaving the medical E-commerce website with chance 1.

Hypothesis 4:

The service times for adding a list of medicines to a medical E-commerce shopping cart and purchasing those drugs follow a general distribution using the ES n I distribution function and the es n I density function (f) .

Hypothesis 5:

Let $\mu(v)$ be the conditional probability of service completion of adding medicines in the medical E-commerce shopping cart and the equation is:

$$\mu(v) = \frac{es_{purchase}(v)}{1 - ES_{purchase}(v)} \quad \text{and} \quad es_{purchase}(n) = \mu(v) e^{-\int_0^n \mu(v) dv}$$

Hypothesis 6:

Let

Let

$$\mu(v) dv$$

Let buy be the conditional probability of completing a service such as purchasing drugs from a medical E-commerce shopping cart, and the equation is: Let $(v)dv$ be the conditional probability of the idle period, and the equation is:

$$\mu_{purchase}(v) = \frac{es_{purchase}(v)}{1 - ES_{purchase}(v)} \quad \text{and} \quad es_{purchase}(n) = \mu_{purchase}(v) e^{-\int_0^n \mu(v) dv}$$

Hypothesis 7:

The medical E-commerce VM idle time is also assumed to follow general distribution with distribution function: $G(w)$ and density function $g(w)$.

Let $\phi(v)dv$ be the conditional probability of the idle period and the equation is:

$$\phi(v) = \frac{g(v)}{1 - G(v)} \quad \text{and} \quad g(v) = \phi(w) e^{-\int_0^w \phi(w) dv}$$

Hypothesis 8:

When the virtual machine is idle, the client may Fig. .5.1. Proposed framework for a medical E-commerce application deployed in cloud. V. Priya et al. Informatics in Medicine Unlocked 8 (2017) 32–41 35 abandon the medical E-commerce shopping cart due to slow response and abandoning the cart follows exponential distribution with parameter ϕ and the equation is $\phi e^{-\phi t}$, $\phi > 0$

Hypothesis 9:

The medical E-commerce VM idle time is also assumed to follow general distribution with distribution function $G(w)$ and density function $g(w)$. Let $\phi(v)dv$ be the conditional probability of the idle period and the equation is $\phi(v) = g(v) / (1 - G(v))$ and $g(v) = \phi(w) e^{-\int_0^w \phi(w) dv}$

VI. CONCLUSION

This system basically provide effective medicine management where use can access required things. The system can give alternat medicine according to custom requirements of user. This system gives single online platform for with chemist, druggist and generic medicine. The major benefit of this system is to be efficient and cost-effective across the entire system. The medicine donation is very effective policy for needy patients. System gives some promo code for where user can get maximum discount.

VII. REFERENCES

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