

Cloud Computing Technology And Their Role In Electronic Archiving System

تقنية الحوسبة السحابية ودورها في نظام الأرشيف الإلكتروني



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Abstract

This paper aims to define With concepts and cloud computing techniques used in electronic archiving services through several points first: the definition With concepts cloud computing, and electronic archives, and the study of cloud storage services as a substitute for the electronic archive in the preservation and retrieval of information. The study used the documentary approach, and adopted on the subject literature available on the Web as a tool for collecting data and information, the study concluded with a number of results:

That cloud computing plays a positive role by providing cloud storage services in electronic archiving. The Save and retrieving archived files electronically and making backups and synchronizing them for exchange with users, of the most important cloud services associated with e-archiving.

Design a software platform that provides cloud computing services, particularly cloud storage as a modern technology of electronic archiving techniques, It consists of screens: storage service screen, login screen, a new user screen, password recovery screen, screen contact us.

key words: Archive - Electronic Archive - Archiving - Cloud Computing.

الملخص:

تهدف هذه الورقة للتعريف بمفاهيم وتقنيات الحوسبة السحابية المستخدمة في خدمات الأرشفة الإلكترونية وذلك من خلال عدة نقاط أولها : التعريف بمفاهيم الحوسبة السحابية، والأرشفة الإلكترونية، ودراسة خدمات التخزين السحابي كوعاء بديل للأرشفة الإلكترونية في حفظ المعلومات واسترجاعها . واستخدمت الدراسة المنهج الوثائقي، وأعتمد على أدبيات الموضوع المتوفرة على مواقع الشبكة العنكبوتية كأداة لجمع البيانات والمعلومات.وقد خلصت الدراسة إلى عدد من النتائج من أهمها:

أن الحوسبة السحابية تلعب دورا إيجابيا بتوفيرها خدمات التخزين السحابي في الأرشفة الإلكترونية، فإن حفظ واسترجاع الملفات المؤرشفة إلكترونيا وعمل نسخ احتياطية ومزامنتها لتبادلها مع المستخدمين، من أهم الخدمات السحابية المرتبطة بالأرشفة الإلكترونية.

تصميم منصة برمجية تقدم خدمات الحوسبة السحابية وبشكل خاص التخزين السحابي كتقنية حديثة من تقنيات الأرشفة الإلكترونية، وتتكون من الشاشات :شاشة خدمة التخزين ،شاشة الدخول، شاشة مستخدم جديد،شاشة استعادة كلمة المرور، شاشة أتصل بنا.

الكلمات المفتاحية: الأرشفة – الأرشفة الإلكترونية – الحوسبة السحابية.

Introduction

With the development of technologies in the information society and the rapid increase in the use of the World Wide Web and the expansion of services through it Many organizations have tended to make use of their applications using cloud computing this term, which began in early 1990, (2012: Moawad,212) it was derived from the cloud code that was used a lot To represent the World Wide Web in maps and graphs.

The technology of providing computer services through the World Wide Web, and utilize its vast resources using the cloud, latest a big leap In applications Related Services information technology Which distinguished as saved in expenditure, and to provide information services to the largest number of beneficiaries, and information institutions, It also contributed to the possibility of providing space for storing information, and backup, and processed, and transmitted, and share it from anywhere, anytime without the obligation of using the PC. It is done all actions (Storage, Treatment, Commuting, and participation) the external servers are available on the cloud web While ensuring the security of this information, and keep them from hacking excesses and viruses, In addition to e-mail services, and remote printing, and software applications Without limited local resources, where treatment becomes, and provide services via apps available across the network. thus saving storage space on the user's machine.

The study Problem:

After reviewing the cloud computing applications available on the World Wide Web It turns out that: study problem lies in the versatility of cloud storage applications in electronic archiving, and how to use them in providing the best archival services. Cloud computing applications are far from being used as a service in the electronic archive, especially since electronic archiving services are part of any integrated system and are not autonomous.

Study Questions:

- What is the concept of cloud computing, and what is its importance?
- What is electronic archiving?
- What are cloud archiving services in the field of electronic archiving?
- What are the requirements for creating a cloud storage platform that offers an electronic archiving service?

Objectives of the study:

- This study focused on a number of objectives:
- Learn about cloud computing, e-archival theory, its features and disadvantages.
- Identify the cloud computing system and its various services and uses.
- Design a platform for the launch of cloud computing and its use in the electronic archive

the importance of studying:

The importance of the study is that it deals with a new pattern of storing and organizing information and providing services to its beneficiaries in the sections or units of archives in any institutional system.

This new cloud computing application for archive systems delivers high-quality services, and the availability of time and effort, and allows the best use of the possibilities and facilities provided by the modern model of archiving with its various technologies in the era of information acceleration.

The importance of this study is that it deals with a fundamental issue that is essential to the archives. The automated systems aim at changing the structure of the archive in a radical way that reflects positively on its services and functions. It also stems from being known as the cloud computing system, Positive and negative.

Methodology and tools:

The study used the documentary approach, this is done by extrapolating the available literature on the cloud computing system and the electronic archiving system. The specialized intellectual production has been compiled and compiled by searching various databases and using search engines available on the web.

The limits of the objective study were determined in the study of the techniques of cloud computing and their role in electronic archiving systems, while the temporal boundaries were in 2019.

Concepts and terms of study:

electronic archive:

Is the organization of files and documents in the era of technical development, the user has many ways to save and retrieve documents and access, and trading, easily through the use of modern technologies of hardware and software.

Cloud Computing:

Is one of the modern technical means of conservation, and retrieve the document or information via the World Wide Web.

And Issue search Submitted From Omaina Mohammed Bashir entitled electronic archiving and administrative work at the University of Giza. (2018 :Bashir ,21) first studies, the study deal with the evaluation of the current status of the archive service in the administrative units at the University of Gezira and the development of policies and plans to organize the archive at the level of the university departments , and contribute to the establishment of infrastructure for the design of electronic archiving system at the university. The study used the descriptive method of the survey and case study to get data and information, based on the questionnaire and personal interviews as data collection tools and statistical analysis program (SPSS) to analyze questionnaire data. The study population consisted of a homogeneous sample whose size was estimated (70) Management from all departments of the University of Giza and the number of its

members (140) An individual, the study found many results the most important: The rapid growth of paper documents in the administrative offices of the university, tight spatial space archive, designing an electronic archiving system for documents there will be a paradigm shift in university archives, electronic archive Is the best way to control the vast amount of information since configured and processed and retrieve it and stored and will build a real information memory for the university, the study made several recommendations of which: necessity Establish a modern network infrastructure and communications at the level of the departments of the university of gezira, spreading the culture of electronic archiving among staff , necessity adoption senior administrations for the application concepts of electronic archiving software, availability financial appropriations and physical potential for effective application.

Also presented Sabah Mohammed Kallow (2015: Kallow,1) Study titled Cloud Computing:Its concept and applications in the field of libraries and information centers, as well as a number of applications in the field of libraries and information centers and the statement of global information institutions that provide cloud computing services and the nature of services provided by these institutions.

And in the field of building electronic system based on cloud computing introduced Md. Anwar Hossain Masud, Xiaodi Huang Study entitled an E-learning System Architecture based on cloud computing (2012: Masud , and Huang,74),the massive proliferation of affordable computers, internet broadband connectivity and rich education content has created a global phenomenon in which information and communication technology(ICT) is being used to transform education, therefore, there is a need to redesign the educational system to meet the needs better, the advent of computers with sophisticated software has made it possible to solve many complex problems very fast and at a lower cost, this paper introduces the characteristics of the current E-Learning and then analyses the concept of cloud computing and describes the architecture of cloud computing platform by combining the features of E-Learning, the authors have tried to introduce cloud computing to e-learning, build an e-learning cloud, and make an active research and exploration for it from the following aspects: architecture, construction method and external interface with the model.

And view all of Gong, Jie Liu, Qiang Zhang, Haitao Chen and Zhenghu Gong (1: Gong and others, 2010) Cloud computing emerges as one of the hottest topic in field of information technology. Cloud computing is based on several other computing research areas such as HPC, virtualization, utility computing and grid computing. In order to make clear the essential of cloud computing, we propose the characteristics of this area which make cloud computing being cloud computing and distinguish it from other research areas. The cloud computing has its own conceptional, technical, economic and user experience characteristics. The service oriented, ioose coupling, strong fault tolerant, business model and ease use are main characteristics of cloud computing. Clear insights into cloud computing will help the development and adoption of this evolving technology both for academe and industry.

Theoretical framework:

Definition of electronic archiving:

Known electronic archive It's a process use Institutions for modern information technology, physical and logical of computer hardware and software, and communication technologies, And accessories, to do all the tasks that were performed by traditional archiving and more, and so to increase Control of documents and improve Means of management From through the foundations of information organization (2008: Ghorabi, 32) .

The Arabic Encyclopedia defined the terms of library, information and computer science as “practical transfer and inserting computer files into different media, so they can be stored for long periods like magnetic strips or optical discs, It is then used as a support tool If you lose the original files from paper or conventional storage media.

It was also known as "converting paper paper into information And images on the computer and server, It is easily and conveniently referenced No matter how old this information is, unlike a paper document that is difficult to refer to and access to its information over the years and years, conversion from paper archiving to electronic archiving is inevitable for all institutions and information centers. (2017: Khafaji and Al-Jawahiri, 220).

Electronic archiving is the result of computer developments And employing modern technologies for transport and conservation Original of the content of the paper document By scanning it And stored in digital memory, And preserve it, And easy Retrieved And read it when needed through the computer.

Objectives of electronic archiving:

- Provide consumer spaces to store paper files.
- Providing a backup copy of the documents in case the assets are damaged and lost.
- Reduce the time consumed in the search for files.
- Easy retrieval of required documents and that creates different ways to search.
- Easy exchange of documents within the sections of the institution.
- Access to documents by many people at the same time.
- Increase the effectiveness of the powers of access to documents.
- Assist management to make the sound decisions based on correct and sound information.

Constraints of electronic archiving:

Despite all characterized by electronic archive However, there are some obstacles that hinder their spread and apply them It is represented in the following : (2015: sarwar, 52)

- Weak infrastructure of electronic networks and communications.
- Lack of awareness of many officials, managers and decision makers of the importance of the application of electronic archiving.

- Lack of trained cadres capable of dealing with modern technologies.
- The rapid development of electronic archiving programs, media and devices.
- The physical cost of electronic archiving.
- the problem of electronic signature and official dye electronic document.

The unregulated document in the science of documentation is a lost information, In the era of the information revolution, the technical processes became the arrangement and preservation of millions of documents difficult, Therefore, it is necessary to use an automated system such as the electronic archive system And rely on cloud computing.

The concept of cloud computing:

Cloud computing is technology-driven transfer processing and storage space And private data for the cloud computer, It is a server that is accessible via the World Wide Web, to transform programs from products to services, It is also characterized by solving the problems of maintenance and development of software for the companies used, and thus concentrated effort of the beneficiaries to use these services only. the cloud computing infrastructure is based on sophisticated data centers, which provide large storage spaces for users and provide some software as services to users, it depends on the possibilities provided by Web 2.0 technologies.(2014:Shaltout ,1).

The definitions of cloud computing have varied according to the applications and services provided through them, The US National Institute of Standards and Technology defined her as her own: is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources(e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.(2011:Mell&Grance, 2).

Essam Obaid also defined cloud computing "is a technology that uses computing and storage resources of the computer and processing through the Internet, so that it provides Internet service providers in the form of a service, which in turn solve 80% of IT problems and increase its efficiency, which contributes to save costs Infrastructure, especially small and medium enterprises, which may reach 70% per annum and for which a model of computing is designed to allow optimal use of infrastructure. (2017: Obaid,5,6)

Hassan and Sumaidaie defined it as "a new model based on the payment model as much as use to flexibly access hardware and software resources through the Internet and allow companies to reduce costs and increase performance" (144: Hassan and Sumaidaie, 2012).

Despite the many definitions of cloud computing, they agree in a definition that aims to provide a number of integrated computer services through the World Wide Web without restricting local resources to facilitate the user. These resources include space for data storage, backup, self-synchronization, It also includes software processing capabilities, task scheduling, email pushing, and remote printing, and when connected to the network, users can control these resources via a simple software platform without going through too many internal details and processes.

Benefits of Cloud Computing:

Global Connect has demonstrated the benefits of cloud computing for organizations as follows: (2010 :Cisco, 2)

Cloud accelerates your business by allowing you to transform ideas into market-able products and services with greater speed. Cloud can provide nearly limitless scalability, enabling your business to grow without time and resource intensive IT build-outs.

Cloud transforms the economics of IT from capital-intensive to pay-as-you-go. Service level agreements guarantee the capabilities you need, when you need them. Costs are tiered and metered to accurately reflect your requirements and usage. All applications, including legacy, run more efficiently and sustainably with greater utilization of the underlying infrastructure

Cloud brings powerful IT resources to the masses: Organizations of all sizes, across all geographies, can access information technology resources that previously were out of reach. World-class applications and computing infrastructure are available to all without considerable up-front investment.

Cloud makes new business models possible: and unlocks revenue potential, for any business. Companies can enter new markets, respond more quickly to changing customer needs, collaborate more effectively to drive innovation and business value, and execute on strategies that might not have been cost-effective in the past.

Cloud can improve information management and reduce operating risks: coupled with context-aware systems, cloud protects sensitive information through automated policy enforcement. Additionally, the resilience of Cloud deployments increases uptime and simplifies disaster recovery.

Take advantage of the huge infrastructure provided by cloud services: requires scientific experiments and tests, which rely on complex calculations for years to run on regular computers, while companies such as Google and Amazon allow their cloud of thousands of servers linked to each other to perform such calculations in minutes or hours. In addition, these services ensure the availability of unlimited storage space, which provides the ability to save a large amount of files and data. (2014: Shaltout,2) (2010: Linthicum,29).

Ensure that the service is permanent:the service works around the clock in the best possible way through teams equipped with the latest devices And information that works around the clock to ensure that the beneficiary 's information is not lost, as well as repair any emergency breakdowns as soon as possible. (2014: Shaltout,2).

IT is environmentally friendly Green IT: the possibility of using computer resources efficiently with lower quality devices, although they are characterized by the ability to operate IT equipment with the least consumption of electricity. In addition, the use of cloud storage technologies and services saves the user with paper consumption when using traditional archives. (2010:Linthicum,29) (2014: Shaltout,2).

Cloud Computing Constraints:

Sometimes the cloud cannot provide all the services needed by the beneficiary, so some of the constraints that limit their deployment are formed, and the obstacles facing organizations when adopting the cloud computing model are the following constraints.(2010:Linthicum,31) (2015: Kallow,6).

Security:

Such as policy development, information encryption, and cloud access procedures, this raises some questions Such as: who can access the data? Will the data be secure? you perform malware and process it to damage data and applications on the cloud?

Reliability and interoperability:

Some organizations and institutions have a fear of embracing the idea of cloud computing because of their reliance on the World Wide Web, which leads to a series of questions such as: whether this technology can meet the needs organizations or institutions at work 24 hours and no downtime in service?

Control:

When the organization or institution adopts Cloud Computing technology It will be under the control of the service provider where it is an organization or institution can cause a host of problems once files, processes, and data are run in the infrastructure Its own, with the possibility of discontinuing this service for some reason.

Service Level Agreements:

Means the agreement between the Cloud Service Provider and the Beneficiary on the quality of services and priorities, responsibilities and warranties. The service provider may not provide good levels of contracting, which is contrary to basic requirements.

Cloud Computing Components:

To deal with cloud computing technology the following elements must be available. (2015: Kallow,6)

User: is the one who uses that technology and benefits from its services through the use of a personal computer or mobile phone and requires its connection to the World Wide Web.

Platforms: They are actors that allows this service Through the availability of servers with large storage capacity And fast data processing like like (Google, Apple).

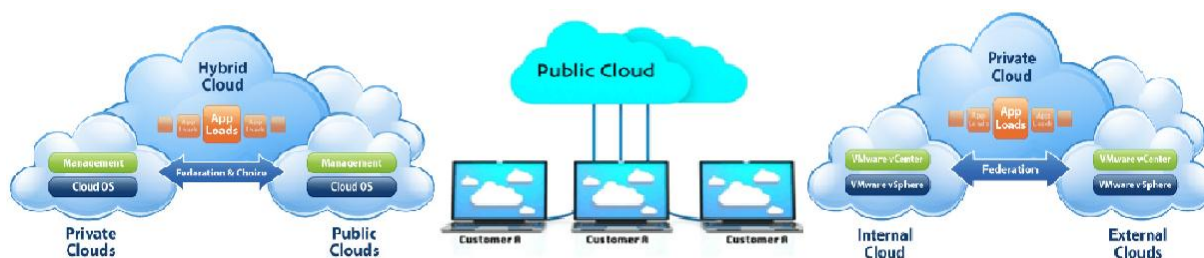
Infrastructure: it is the cloud infrastructure that is reliable in providing the service and includes the provision of personal computers, the World Wide Web, and storage areas of information.

Applications: it is the application software that the patron can run in the cloud. It includes word processing software, presentation, spreadsheets, and information sharing and sharing services.

Cloud computing building models:

Many cloud applications and services are used extensively in everyday life with many web services such as: Email services (Gmail, Yahoo, Hotmail), and cloud storage services (Google Drive, Drop box) Box, Skydrive, and cloud applications (Google Docs, Photoshop Express), And cloud operating systems (Google Chrome OS, Jolicloud), and cloud music services (Google Music, Amazon Cloud Player, iTunes / i Cloud). based on the above we will provide cloud computing models depending on the type of deployment depending on the levels of service delivery.

First: by propagation type: organizations differ in determining the type of cloud they need to deliver their services, and making them available to the beneficiary. figure 1 shows cloud computing models by propagation type. (2014: Shaltout,2) (2012: Mouawad,226).



Figure(1): Cloud computing models by propagation type

Public Cloud: cloud infrastructure that enables easy exchange of information between users via the World Wide Web, and users can remotely process information; Beneficiary applications are usually stored together on cloud servers.

Private Cloud: the infrastructure that it leases Only one beneficiary and is self-employed under full control of data and security, And quality of service.

Hybrid Cloud: it combines multiple public and private cloud models simultaneously. Hybrid Clouds show the complex process of determining how applications are distributed across both private and public cloud.

Community cloud: a number of organizations share the cloud infrastructure and support the community Of common interest, they can be managed by organizations or by a third party

Second: According to the levels of service delivery:

Cloud computing has several levels of service delivery ,as shown in figure (2). As an Infrastructure service, Platform service, Software service. (2013: Mekawy,58 -59) (2015: Kallow,4)

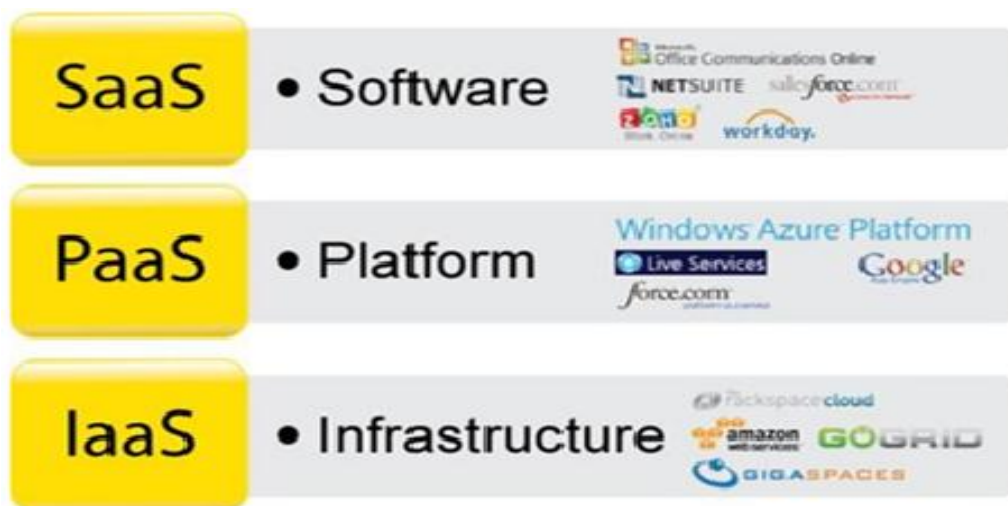


Figure 2: Cloud computing models by service levels

Infrastructure as a Service (IaaS): is the bottom layer of cloud computing. It involves both storage services, Backups, Devices for beneficiaries, and Servers. This service includes several services:

Storage as a Service:

This service provides the appropriate storage space, payment is made according to storage space usage. Amazon offers storage service (Amazon Simple Storage Service Amazon S3) for system designers to develop their applications from anywhere, anytime through the World Wide Web.

Hardware as a Service:

It includes physical capabilities as a service, such as: CPU, solid memory, capacity the range.

Commutations as a Service:

Considered a new service. Like: E-mail, Telephone communication, Electronic tables, Presentations, Office software applications, like a word processor program.

Desktop as a Service:

A technology that allows a patron to use a complete virtual workspace as a service, where the beneficiary can reach all the software environment, And desktop access is available on the World Wide Web, the beneficiary needs the machine may be a computer or a phone (mobile). The advantage of this service is that the beneficiary pays only for what applications will be used on demand .

Platform as a Service (PaaS) :

The next level of the cloud, this service is based on the ability to develop or modify web applications such as Google App Engine (Google). Including prototypes (Prototyping) through a team of system designers who have the powers of access and development.

Software as a service (SaaS):

The service provides programs for beneficiaries such as email access, and other software applications.

Companies that offer cloud computing:

Companies have recently competed to provide cloud computing most notably shown in figure (3): (2015: Kallow,4)



Figure 3: Companies providing cloud computing

Google: it works on many different levels in the cloud computing. For example, the Google app engine allows developers to build their applications in both Java and python.

Amazon: the most important technology company in the field of cloud, and the distinctive in this company it maintains the spirit of innovation, as it always works as a startup in the market, she always looks forward to a step forward.

Rack space: it acts as a cloud provider, It draws its power from the open source open Stack application to create clouds. This cloud computing app is an android mobile system.

VMware: is a company providing cloud computing software and simulate operating systems.

Salesforce: the company not only showed the world that software could be sold as a service, but was also one of the most common fasteners that could run home applications.

Microsoft: it is one of the companies that joined the world of cloud computing through its various applications, including Sky Drive, which is used in cloud storage, and the Office365 service that offers a bundle of popular office software, the company also offers a variety of cloud multimedia applications through the Azure platform, a platform that consists of a growing suite of integrated cloud services, storage, data, and networks. It helps applications move more quickly and save money.

• Cloud storage services in the field of electronic archiving:

The services provided by companies in the field of cloud storage to archive files can be benefited by any beneficiary or any institution, for the purpose of backing up and synchronizing them for exchange with other beneficiaries, And examples of these services:

- **Google Drive:** google drive service appeared Subsidiary of google in April 2012, It has become a global resonance in global circles as a public cloud service allows the

beneficiary storing its various files on the main servers, Thus, the beneficiary can access his files and make adjustments to them, and participate at any time and place on the World Wide Web, Google provides the security and privacy of these files as it cannot access them only who owns it or is authorized to access it. Google Drive is an extension of the Google docs service that allows editing of documents and text and processed and take many actions on it (2015: Kallow,8)

Drop box:

It is one of the most famous sites that allow the beneficiary free storage of his files on the World Wide Web ,and share them simultaneously with other beneficiaries using various devices and modern media, This granted space can also be used as any normal folder on the user's own computer (2015:Kallow,9).

Sky drive : is Microsoft's storage service, Provides free space on the company's servers to store the files of the beneficiary, And access them from anywhere in the world and from any device via a special account, Like a hard drive on the World Wide Web, With properties of editing files.(2013: What is SkyDrive.,1).

Cloud computing services will help preserve documents in their original form and distribute them to different beneficiaries, Thus, their retrieval will become faster and in a variety of ways. The creation of platforms that will be the cornerstone of any cloud storage service system will help achieve electronic archiving goals of fast retrieval And provide space to store files.

Visualize a special cloud platform Electronic archiving:

Cloud computing services are provided at multiple levels according to the needs and uses of the beneficiaries. The second level enables the design of independent cloud platforms that provide services to beneficiaries. And participating on the World Wide Web (public cloud), In this paper we propose a model for a platform that provides cloud storage service for uploading, archiving and organizing files. The platform can be connected to the world's most popular cloud storage platforms.

• The proposed system:

Designing a proposed software platform that provides cloud computing services, especially cloud storage as a modern electronic archiving technology.

The proposed platform consists of the following screens:

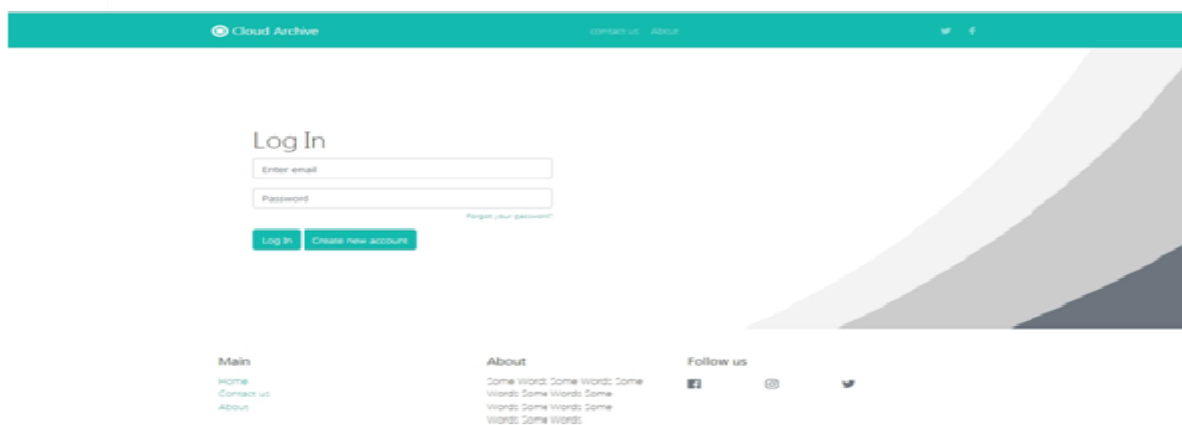


Figure (4) : Login screen

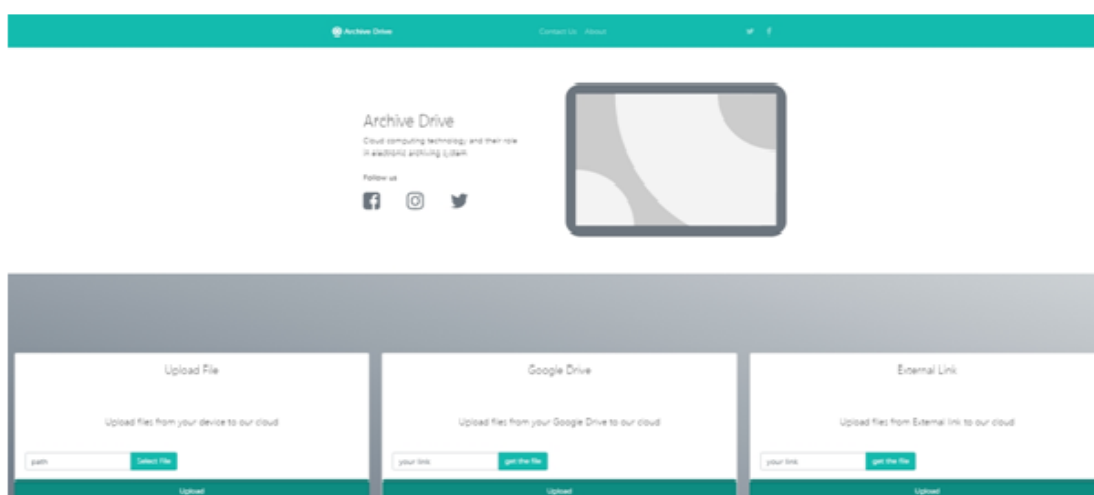


Figure (5) :Storage service screen

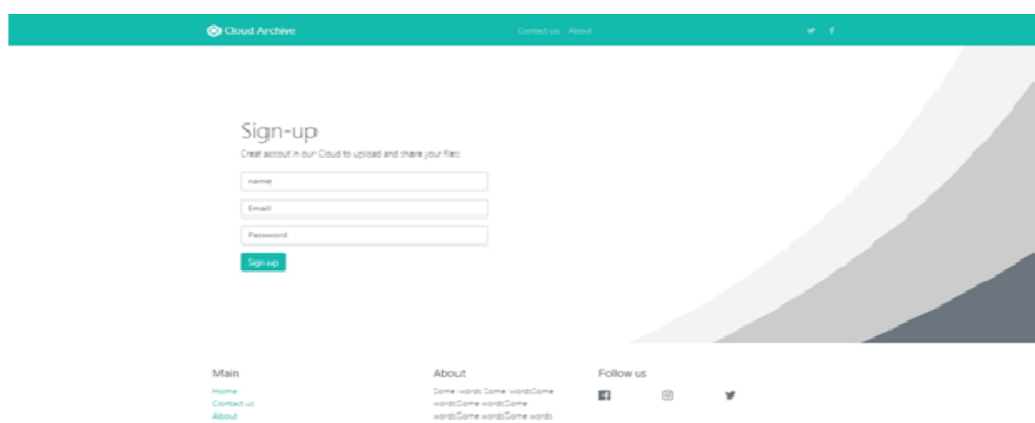


Figure (6) : New User Screen



ARKASH



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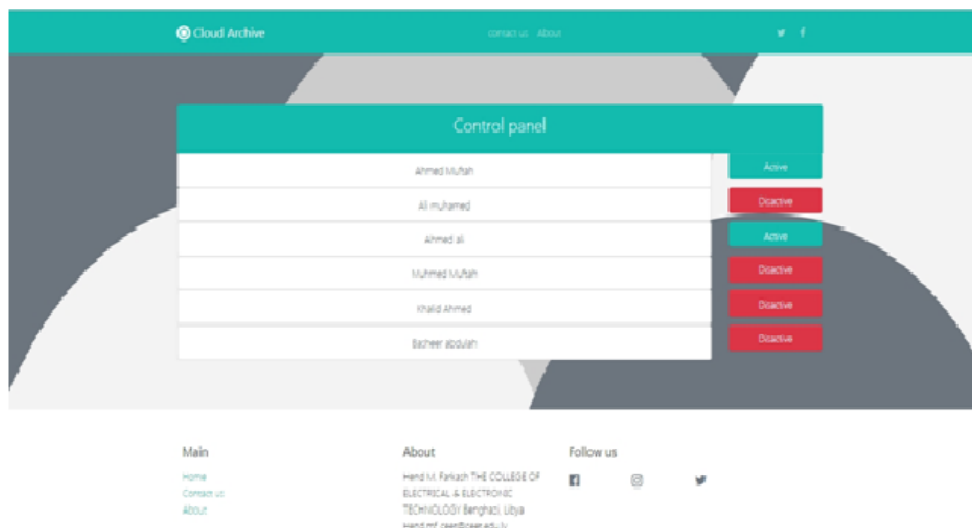


Figure (10) : Control Panel Screen

Technical Specifications: It is the study of what the system needs of hardware and equipment and software starting from the design and then work on it.

Table (1): Technical specifications of the proposed platform	
Software	Hardware (Server Device)
Windows 7 or higher	HD 500G
Dreamweaver 8	RAM at least 4G
PhotoshopCC& CSS	Core i5 at least
Mysql to build the database	Router Internet service provider speed ranging between 7.1 _ 21 mbs per second

System security analysis :

The procedures that must be available in the platform and the necessary precautions to ensure the protection of the system from external or internal risks, It is as follows : Use passwords, Data backup, Documentation and encryption, Recover passwords, Ensure devices are turned on And its software.

Data Dictionary:

The general structure of the data types used in the database design of the proposed platform.

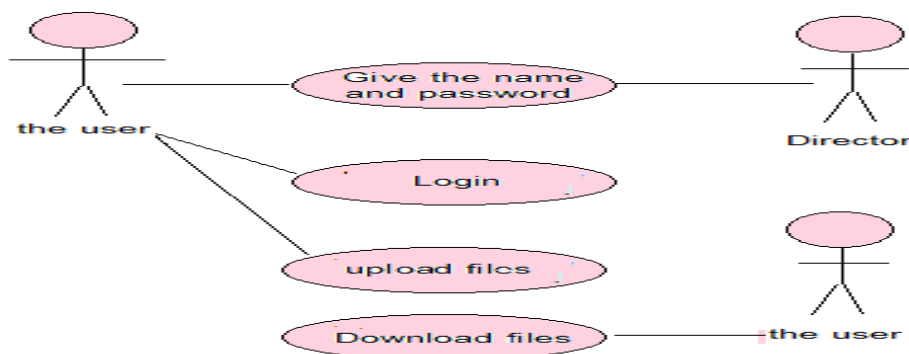
Table (2): Data Dictionary				
Field size	Field Type	Field code	Field name	Table Name
10	Digital	ID	number	Users table
30	Textual	Name	user name	
50	Textual	E-mail	E-mail	
60	Textual	Password	password	
15	Date / Time	R-date	date of registration	
5	Digital	No	service number	Storage table
30	Textual	U-name	user name	
50	Textual	U-email	E-mail	
15	Textual	Type	file type	
15	Date / Time	S-date	Storage date	

• System Analysis with UML:

Unified modeling language is one of the most common methodologies for coding software processes, It is a graphical language that provides a description of the key elements of any software system, It provides a simplified method for expressing different models of work in which the relationship between objects (user and manager) and system component processes is explained. It also facilitates communication between analysts, system designers and beneficiaries. The following models are used to describe the proposed platform.

First: Usage Form (Use Case Model):

A method that describes the system used by the patron, and helps determine the requirements. See figure (11) model for use.



Figure(11):Usage model

Second: Operations Model (Activity Model)

A model that describes the various processes that make up the system, and shows the stages of transition between them. See figure 12.

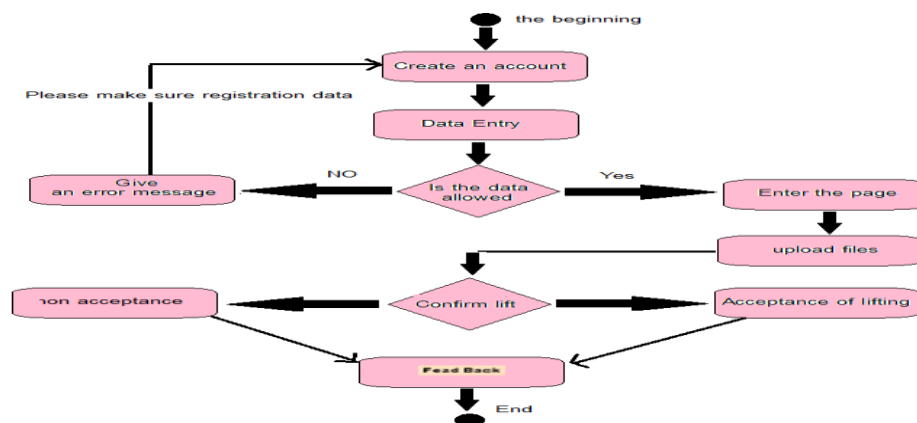


Figure (12): Operations Model

Third: the relay model (Sequence Model) .See figure(13).

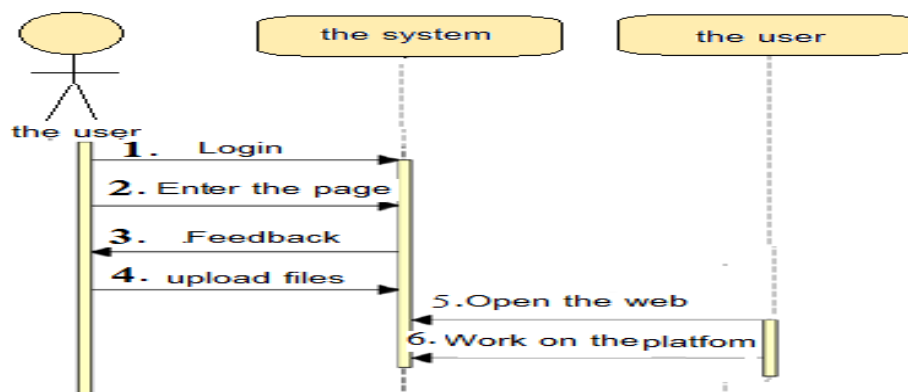


Figure (13): the relay model

Results:

The study reached the following results:

There is a link in concepts between cloud computing and electronic archiving, as it relies on modern technologies in the storage of data and information.

Cloud computing by providing cloud storage services plays a positive role in electronic archiving, saving and retrieving archived files electronically and backing up and synchronizing them for sharing with users is one of the most important cloud services associated with electronic archives.

Cloud computing and e-archive technologies share information technology as green IT, providing users with paper consumption when using traditional archives, as well as the ability to use computer resources efficiently with lower quality devices, although they have the ability to operate Information technology devices with the lowest consumption of electrical energy.

There are many services provided by companies in the field of cloud storage to archive files so that the beneficiary or any institution can benefit from them, such as these services: google drive, Drop box, skydrive.

Designing a software platform that provides cloud computing services, especially cloud storage as a modern electronic archiving technology, It consists of screens: Screen storage service, Login screen, New User Screen, Password recovery screen, Screen Contact Us.

Electronic archiving is compatible with cloud computing as it faces constraints Most notably The security concern, And reliability For different service users

Recommendations:

Based on the findings of the study, the recommendations were as follows:

- Raise the awareness of the concerned authorities on the importance of electronic archiving and the use of cloud computing.
- Necessity to introduce information technology to archival services, provided that there is coordination between all institutions and information centers in the type of cloud services used.
- Activate the use of cloud computing services as an effective alternative in electronic archiving systems.
- Encourage the use of cloud computing model among beneficiaries in archival institutions by enabling them to reuse documents and gather information.

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