
Digital Accounting System Expansion On Cloud Computing

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Abstract:

Competitiveness in this fast-paced and hostile environment is essential for business alliances. For businesses to sustain their competitiveness, technology is an inevitability, particularly since information is a vital part of operation decision making. When making decisions, determining a company plan, or responding to a request, account software is an essential instrument for operation. Small firms are unlikely to be able to afford the account software that is offered in the request. As a result, the goal of this research is to create a cloud-based digital accounting system that can process and store counting databases. Use Case Diagram, Algorithm, Flowchart, and ER-Diagram are examples of logical and system design tools. Small and medium-sized enterprises (SMEs) were able to save time and attain lower levels of delicacy in their accounting processes when they were given free access to and utilised the established DAC. DAC, on the other hand, costs less than other account software now on the market, while still allowing its users to profit from fiscal planning. As a result, DAC may provide a new avenue for firms of all sorts to accomplish their goals or retain their competitiveness in the marketplace.

Keywords: Digital Accounting, Algorithm, Computing, Software Development

Introduction:

It was common practise in the past for accountants to record transactions manually, which resulted in a steady stream of plant crimes and delayed information. Thus, manual counting information may not be useful for directors' efficient decision-making in the field of wood." Account software may be used instead of a handmade account system in order to boost the competitiveness and effectiveness of company. Directors must consider information technology when calculating the costs and benefits of information technology. Directors will have access to fast, accurate, and trustworthy account information via the use of a computer system and account

software (Hongchai, 2011). Account software is a critical component of computerised accounting systems. Financial reports generated by account software are utilised by the company's directors and other related parties [1]-[5].

Director's benefit from accounting software is that it provides timely information on the financial health and performance of the organisation. Furthermore, the directors are able to penetrate the account information when it's requested, as well as having less delicacy in the account procedure. One of the most crucial account instruments throughout Thailand's 4.0 time has been digital technology. Accountants must adapt to developments in technology in order to remain relevant [6]-[10]. There are three options for the association to acquire account software, as outlined by Aphiwatpisan (2012): (1) The company creates its own account software. (2) The association purchases account software. Secondly, the company buys counting software that is easily accessible to them. Accounts are handled by a third-party service provider. The quick pace of technological development and the inability of many firms to keep up with these changes often resulted in issues for organisations that had created their own account software internally (Malaiwong, 2004; p. 14). Malaiwong also stated that businesses eventually replaced their own account systems with account software because the companies providing the account software had strong, devoted, and over-to-standard brigades; and were willing to spend time and money to keep up with the rapid-fire changes in technology [11]-[17].

Literature Review and Relative Work

A system for managing accounts payable

Cloud computing is the construction of a new platform for account software that does not need to be installed on the original machine (Shumeyko et al., 2019; Genete and Tugui, 2008). In order to access cloud-based accounting information, a person simply has to be a web user and have no programming experience. It is maintained in a secure location and is available online at all times, seven days a week, twenty-four hours a day.

A Book of Accounts

An account book may be traced back to the Sumerians in Mesopotamia. This information was made public in the early morning hours. But at any one moment, the sum of all accounts' losses does not equal all accounts' gains. Profit and expense are also included as subcategories of equity (Elmaleh and Willis, 2005). Table 1 shows the findings of the double-entry secretary's account analysis. Accounting has grown as technology, economics, and society have developed. Going

concern and financial unit were introduced to the business world in the same manner as propositions and generalities. As a consequence, it has become more difficult to create an account report. Keeping track of your company's money is easier with the aid of the account cycle. Figure 1 shows eight of the ten ways to count by using labour distance after some of the ten methods have been combined (Wild et al., 2009). In order to create a new account, every business starts at the bottom and works its way up. This account information was used to create profitable forecasts in the financial statements. Cloud-based accounting systems must be able to handle the accounting demands of a broad variety of businesses. Researchers started by setting up a cloud-hosted MySQL database.

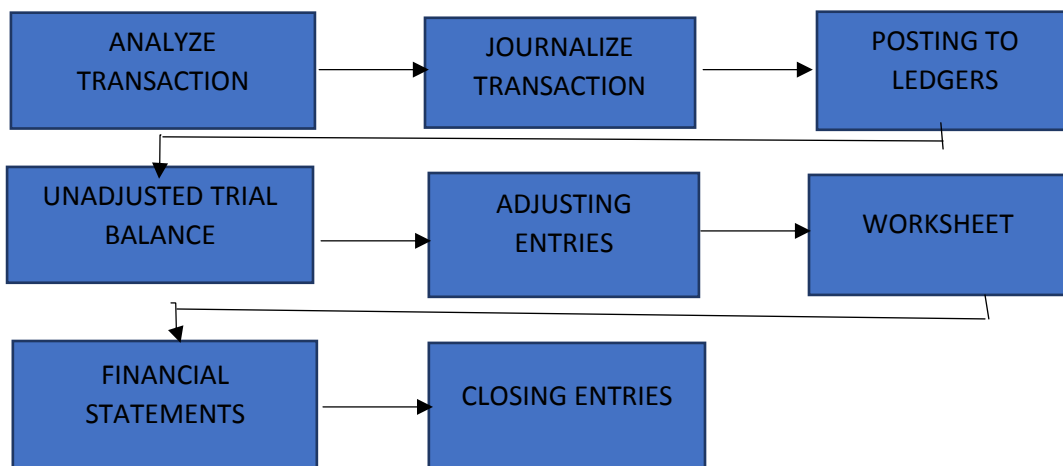
Provider of Computer Services

Sharing money over the internet with drug addicts is analogous to using a cloud computing service. As a result of virtualization and online services, the term cloud computing was coined. Assuming that everyone who has used drugs is knowledgeable about every aspect of employment is unfair. Some of the operations and services that may be conducted on cloud computing are shown in Figure 2. A list of cloud computing services is provided below.

Provider's host computer and other services are made available via SaaS (software as a service), a kind of SaaS (SaaS). SaaS account software will be provided free of charge by our cloud computing service.

Platform-As-A-Service offers the processor with an operating system and other operational support services as a hosted service.

Structure as a Service (IaaS) provides data structure services that are beneficial for processing data that is complex.



CLIENTS Web browser, mobile app, thin client, terminal emulator
SaaS CRM, Email, Virtual Desktop, Communication, Games
PaaS Data base, Webserver, Execution Runtime, Development tools
IaaS Server, Storage, Network , load balancer, Virtual Machine

Relative Works

According to Mahanam and Ari (2015), there are eight key reasons why accounting software packages for small and medium enterprises (SMEs) are not cost-effective. Posting styles, inspection trials, checks and journals, data flowing within modules, internal control, reporting capabilities, stoner authentication and support, and simplicity of use and inflexibility are among the eight primary variables influencing the program's cost-effectiveness. A questionnaire was employed to gather data from 400 instances. Statistical software was used to analyse the average and chance of the data obtained. The most often used accounting software programmes in the survey were Express, BC Account, and Easy Account. Posting styles, inspection trials, checks, journals, data flowing across modules, internal control, reporting capabilities and stoner attestation and support were also found to be of little concern to most small and medium-sized enterprises. It's all about the eight elements that might lead to troubles while utilising an accounting software programme. Other issues exist, such as assistance issues, since some employees lack the necessary expertise in the programme, tackle, or computer. In certain cases, a connected company may be old, incompetent, or insufficient for the account's needs. Information that is routinely altered without authority might cause issues on occasion. Several conclusions may be drawn from the research as follows: Companies who sell accounting programmes need to tell their consumers about the need of making sure their computers can run the particular

programme. The providers should instruct the drug addicts in the use of accounting software and promptly provide assistance. As a result, the purchasers should keep their computers and other equipment up to date so that they can always operate with the programme and provide reports that meet their expectations. In addition, the study's goal was to improve the efficiency and effectiveness of counting in Chiang Khong District, Chiang Rai Province, by employing software packages for monitoring and tracking and civic community finances of exterior regions. For Rattanaprayoon (2017), it was a matter of employing a software programme to assess the fund's account effectiveness and efficacy. Account software was employed by the slice group, which included 16 finances, to compare handcrafted and software-based medication of account reports.

Digital Accounting Development Process

When developing software, a cascade model was used (SDLC). As part of the system development process, the cascade model incorporates the following phases: demand analysis; design; perpetration; testing; and preservation (Supardianto et al., 2021).

This phase is referred to as the "demand phase. During this stage, data on the wants and requirements of drug users and the circumstances of their account software is collected. A primary source of information for our investigation is SMEs' wants and demands, since we have used them as focus groups to gather information. In order to get the most accurate, reliable, and relevant information, we sought the services of a counting expert. As a consequence, we have enlisted the help of three experts in counting systems to ensure that the DAC's analysis and design are accurate and effective.

Phase I of the Analysis

Observation and study of counting proposition, counting book, and fiscal reports constitute the basis of system analysis. According to the authors' findings from a survey of the literature, there are issues with the DIY accounting method, such as extended calculation times and the possibility of errors owing to grave crimes. The fiscal reports may now be set quickly and directly thanks to the development of DAC.

Initiation of Concepts

ER-illustration, flowcharts, algorithms for data inflow accounts, database relationships, data dictionaries, and programme interface design are all parts of the system design process for cloud computing account software.

Execution Phase The system application process comprises the creation of MySQL databases and the development of operations based on the stage of system designs. The PHP programming language, FileZilla, and Putty Train software were used to encrypt this operation programme before it was uploaded to the cloud provider.

Testing Phase

The initial phase in software testing for each module was functional testing. The test was to see whether it was now operating in accordance with the system's design condition. Use of black-box results for testing was primarily intended to reduce or eliminate crime and ensure that the performance of a given task was correct.

This is the beginning of conservation.

Conserving a computer system under the watchful eye of an account system critic who is always on hand to make any necessary adjustments or fixes to the programme that may occur. The following illustrates the content and evolution of information systems in the context of this investigation (Specific Function). According to the double-entry secretary, the following is the trajectory of DAC.

Set up a new accounting period, assign accounting categories, assign chart of accounts, and record the amount held at the beginning of the period as a user/information. SME's

Assets are listed on a balance sheet.

Keeping a record of each financial transaction (adding each account)

Profits and losses, capital expenditures, and other transactions are the first four components of an accounting statement.

Recorded information may be found in the general journal" (recheck and correct the records)

Reports on the company's finances

financial condition report; and an income statement

In order to use DAC, business owners don't have to worry about designing their own software.

Research Materials

PHP Programming

The PHP Hypertext Preprocessor is referred to as PHP. It is a server-side scripting language. Every time a script is invoked, the working process acts as an interpreter programme that translates the language. Using PHP Programming, there is no need for a compiler when beginning a new project or when saving a new version of the programme.

The MySQL database server

Currently, MySQL is a relational database management system (RDBMS). MySQL's popularity stems from the fact that it is free and very efficient software, making it a viable alternative in the oligopoly market for database management systems. The ability, speed, and capacity to handle customers who utilise a huge volume of data and support for several operating systems, such as Unix, OS/2, Mac OS, and Windows, are all highly regarded among database developers who have used MySQL. There are a number of web development platforms that may be used with MySQL. Consequently, it is not unexpected that MySQL has lately become quite popular and will continue to grow in popularity over time (Williams and Lane, 2004).

ER-Diagram

An ER diagram is a visual representation of a database's structure. Here is a way to describe the link between structure and data:

First and foremost, the system focuses on "entity."

There are two ways to think about "attribute."

Thirdly, "connection" refers to the relationship between two things.

Flowchart

An algorithm's steps, explanations, assertions, or sentences are shown visually in a flowchart. Communication between parties may be improved by using a flowchart, which does not need using words. The use of standardised symbols in a flowchart makes it an excellent tool for illustrating processes and workflows[18-27].

Discussion of the findings and conclusions.

After conducting interviews with accountants, the researcher studied the fundamental functions of producing digital accounting software using computers. – An overview of the computer service's digital accounting system may be seen in Figure 4. If the user has an internet connection, they may access the DAC system from any smart devices such as a mobile phone and tablet, as well as from a computer pc or notebook. Figure 5 depicts the system's functional and user environments, as well as the Use Case Diagram. To link an accounting information system to the system, an ER-Diagram must include information about the Company Entity (com id key) for every entity, as shown in Figure 6. The system will produce a unique com id (Primary Key) for every table in the MySQL database after the company owner has registered as a member (Foreign Key).

Afterwards, the researchers established a digital accounting system and subsequently supplied the service on a computer platform. It may be viewed and registered at <https://www.mse-exam.net/acc>, where the register page is displayed in Fig.7. As part of the registration process, users are asked to give information such as their business name and contact information.

Conclusion

Research goals were satisfied in this study's findings. Algorithms in digital accounting on computers are the initial goal. Because of this, we created an algorithm that involves the calculation of asset depreciation, the creation of an account chart that follows double-entry accounting, and the creation of the commencement of the balance record. second aim: build databases connection in digital accounting on computing service. In order to achieve this goal, we created a database connection and with this one database under service, it can serve a variety of business functions (See in Appendix). The final goal is to create a software package for digital accounting on a computer. The ultimate output of this study was a service-based digital accounting system that was tested and developed over the trial period and testing. Small and medium-sized businesses (SMEs) may now use the service without paying a fee, which saves them money in the long run.

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