



Cloud Cost Care for Customer Data

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ABSTRACT:

Utilising cloud computing services appears to have considerable cost benefits. These benefits are especially helpful to start-up businesses because they usually lack an internal IT infrastructure. But are prices for cloud computing services really so low? We discovered that certain cost types and components are typically overestimated by practitioners. In this project, we provide a total cost of ownership (TCO) methodology for cloud computing services. For the creation and assessment of the formal mathematical model, we used a multi-method approach (systematic literature survey, analysis of real cloud computing services, expert interview, case study). Due to their effective and affordable management, cloud-based data storage services have recently attracted growing interest from academia and industry.

I. INTRODUCTION

It indicates that using cloud computing services has major cost advantages. These benefits are especially beneficial to start-up businesses because they usually lack an internal IT infrastructure. However, are the prices for cloud computing services truly so low? We discovered that certain cost elements and categories are typically undervalued by practitioners. A total cost of ownership (TCO) approach for cloud computing services is presented in this research. For the creation and assessment of the formal mathematical model, we used a multi-method approach (systematic literature survey, analysis of actual cloud computing services, expert interview, case study). We discovered that our model facilitates cloud computing decision-making and satisfies practical needs. An expert interview has been used to evaluate the TCO model.

II. RELATED WORK

A. Purpose of the document

This paper is the Software Requirement Specification (SRS) for the CLOUD COST CARE FOR CUSTOMER DATA. The purpose of this paper is to describe the functionality, requirements and general interface of our project.

B. Scope for development of this paper

The user can login to the cloud and they can upload a file in that cloud. After uploading the file the price amount will be displayed according to the size of file.

Main Modules of the system.

1. Cloud Computing-

A model called "cloud computing" makes it possible to quickly provision and release a shared pool of reconfigurable computing resources (such as networks, servers, storage, applications, and services) over a network on demand and with little effort or service-provider interaction.

2. Fixing Pricing Scheme-

The TCO technique enables the use of a specified scheme to analyse the costs or specific cost components of an IT artefact. Real cloud computing services and the recognised literature served as the foundation for the original cost structure and cost type determination. The expert interview's findings ultimately supported and expanded our concept.

3. Calculating Cost Factor-

This formula is used to determine the expenses associated with data transit and storage, both inbound and outbound. The user's storage capacity and time are taken into account when calculating storage costs. The majority of cloud storage providers offer component-based, hourly (usage-dependent) prices. The expenses incurred are determined by the specific pricing.

4. User modul-

In the cloud storage space, the user can store their own data. They always have access to the data stored on the cloud. The expense of cloud storage should be covered by the user.

III. EXISTING SYSTEM

The analysis's primary focus is on comparing the costs of various cloud computing services and service models. As a result, the model does not take server purchase costs into account. The first adoption of a cloud computing service occurs when a service provider is changed; hence, each provider change should be viewed as the deployment of a new cloud computing service. The reason for this is that we do not take into account the hidden costs associated with cloud storage because the procedures for the initial deployment of a cloud computing service are the same as those for a change.

IV. PROPOSED SYSTEM

One of the most significant cost-oriented approaches is the total cost of ownership method. The identification and computation of cost components are the primary goals of our model. The software tool aids decision-makers in verifying cloud computing services from a cost perspective by being able to analyse the cost structure of those services. The TCO technique enables the use of a specified scheme to analyse the costs or specific cost components of an IT artefact. TCO is a piece of software used to estimate cloud computing setup and maintenance expenses (including data transit and storage costs).

V. REQUIREMENTS AND SPECIFICATIONS

A. Functional Requirements

The functional specifications outline what the product must be able to achieve. They have to do with the actions the product needs to take to fulfil the essential purposes for which it was created. Consider the business requirements as the functional requirements. In other words, if you talk to a user or a businessperson, they will define the things that the product needs to perform to finish a certain aspect of their task. Remember that the requirements specification will serve as the product's contract when it is constructed. Therefore, the tasks that the desired product can execute must be completely described in the functional requirements. I also compare it to something you could buy in a shop if you look at the list of bullet features.

B. Non-Functional Requirements

Your product must possess certain qualities that are not functional. Consider these attributes or qualities as what give the product its appealing, usable, quick, or dependable qualities. These characteristics are present even though the fundamental functions of the product, such as calculations and data manipulation, are not necessary because the client wants the essential functions to function in a particular way. Although they are necessary for the product to function as intended, they are not essential to the product's existence. The functionality of the product is unaffected by non-functional needs. That is, regardless of the qualities you give them, the functional needs are constant. The non-functional criteria enhance the product's usefulness because it requires effort to create a product user-friendly, secure, or engaging. However, this feature is included in the product because it gives it the required qualities. You could therefore imagine the non-functional criteria as those that give the work character and the functional needs as those that carry out the actual work. A sizeable portion of the specification is made up of non-functional requirements. They are crucial because the customer and user may assess the product based on its non-functional qualities. The non-functional qualities of a product, such as how usable, handy, inviting, and secure it is, may make the difference between an acceptable, well-liked product and one that goes unused, assuming the product has the needed level of functionality.

C. Minimum Hardware Requirements-

Processor : Intel Core i5 10th Gen.

Speed : 2.2 GHz

RAM : 8GB

Hard disk : 512GB

D. Software Requirements-

Operating System : Windows 10/11

Application Server : Tomcat 8.5/9.0

Front End : HTML, Java, Jsp.

Scripts : JavaScript.

Server Side Script : Java Server Pages.

Database Connectivity : Mysql.

VI. SYSTEM DESING

USECASE DIAGRAM

A usecase diagram is a class of actors, a set of use cases enclosed by a system boundary, communication associations between the actors and users and generalization among the use cases.

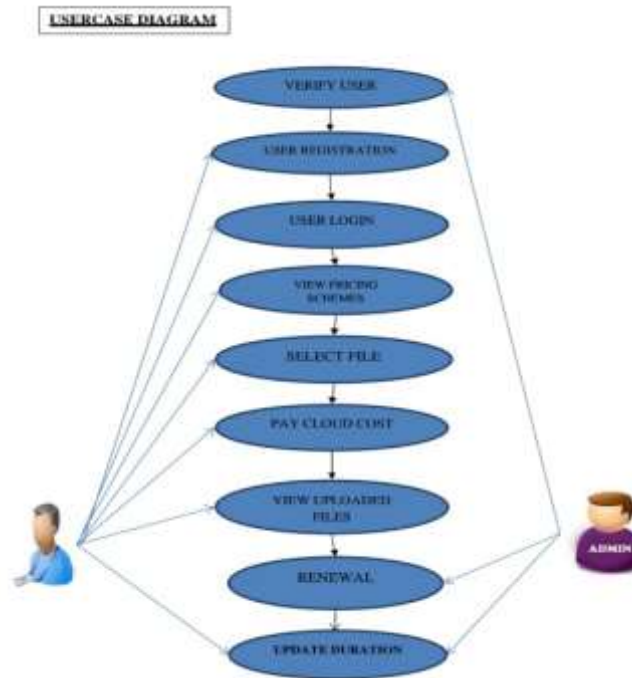


Fig : Usecase Diagram

CLASS DIAGRAM

A class Unified Modelling Language(UML) is a type of static structure diagram that describes the structure of a system by showing the system's classes, their attributes, operations (or methods), and the relationships among objects.

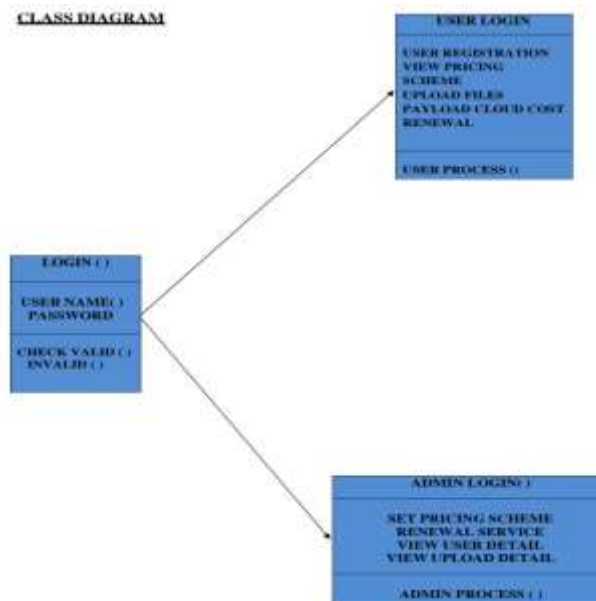
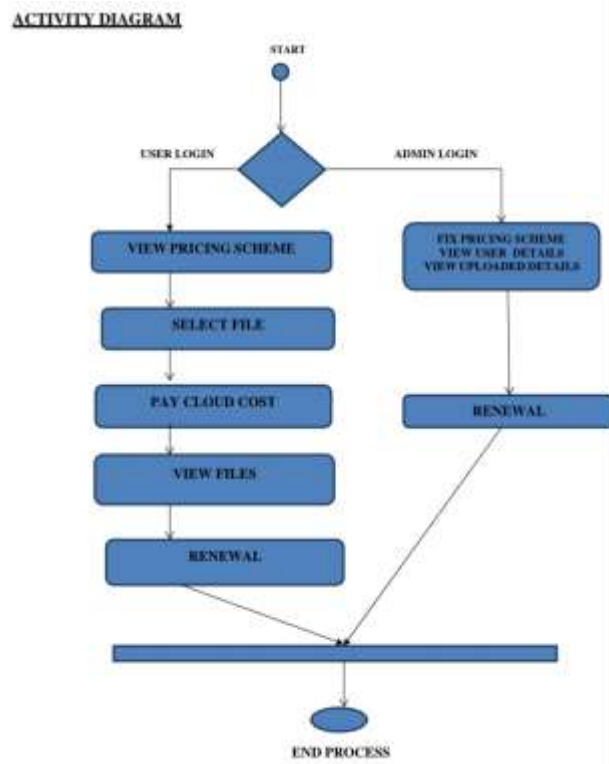


Fig : Class Diagram

ACTIVITY DIAGRAM

The activity diagram focuses on representing activities or chunks of processing which may or may not corresponded to the methods of classes.



VII. CONCLUSION

In this study, we make the case that a crucial component of cloud computing decision-making is the examination of pertinent cost types and aspects. The information technology artefact is implemented on a public website and provided as a mathematical model. An expert interview, the findings of an examination of actual cloud computing services, a case study, as well as scholarly taxonomies and ontologies, have all been used to evaluate the TCO model. We discovered throughout the course of our research that there are no systematic approaches to this subject and that the evaluation and selection of cloud computing services are typically done on an ad hoc basis. As a result, we conceal cost types that, for example, concentrate on an existing internal IT infrastructure and associated cost drivers (cf. assumptions 1 and 2). These extra costs are required for a thorough analysis if a corporation intends to implement a private cloud. We believe that these assumptions make the cost evaluation approach and its applicability more straightforward because our approach places a heavy emphasis on the evaluation of cloud computing services, which are typically provided externally.

VII. REFERENCES

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