SECURE DATA SEQUENCE QUERY BASED ON MULTIPLE FOGS

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ABSTRACT

Fog computing is used to process a large amount of data produced by terminal devices where fog nodes are the closest acquirers to the terminal devices. In fog computing, the processed data may be tampered with or illegally captured by some malicious nodes while the data is transferred or stored. so, when some applications need to require data process with high security, fog computing must provide a security approach to secure and check the final results. In this paper, we propose a secure data sequence query framework based on multiple fog servers, where we use multiple fog servers to store and provide data hashing values to verify corresponding data sequence. in the proposed scheme, the cloud server needs to pre-designate some merkle hashing tree topologies to the fog network, then the fog server directly acquires related data from leaf-nodes (fog nodes) according to one of the pre-designated merkle hashing tree topologies; at the same time, an actual merkle hashing tree is constructed according to the selected merkle hashing tree topology in the fog network.

INTRODUCTION

Cloud computing, as a computing architecture that integrates a series of heterogeneous resources and provides powerful computing capability for users, has been developed and applied more and more widely in recent years. However, with the explosive growth of diversified terminal devices, cloud computing needs to utilize data centers with powerful computing and storage capabilities in the core network to process diverse requests from the edge network. While realizing the functions of

hih-speed computing and storage, cloud computing also brings about large operating costs, network delay and other issues. So, the Cisco company [1] proposed a new computing Ke Gu, Na Wu and Bo Yin are with School of Computer & Communication Engineering, Changsha University of Science & Technology, Changsha 410114, China.

PROJECT DESCRIPTION

Cloud computing, as a computing architecture that integrates a series of heterogeneous resources and provides powerful computing capability for users, has been developed and applied more and more widely in recent years. However, with the explosive growth of diversified terminal devices, cloud computing needs to utilize data center with powerful computing and storage capabilities in the core network to process diverse requests from the edge network. While realizing the functions of high-speed computing and storage, cloud computing also brings about large operating costs, network delay and other issues.

SYSTEM TESTING

Software testing is an important element of software quality assurance and represents the ultimate review of specification, design and coding. It increasing visibility of software as a system element and the costs associates with a software failure are motivating forces for all well planned through testing .The system is tested with giving wrong information. Cascade deletion and, the software developer checks updating. Testing and debugging are different activities, but debugging must be accommodated in any testingstrategy.

TYPES OF TESTING

Unit testing

The first step in testing is Unit testing. Individual testing are tested to ensure that they operate correctly. Each component is tested independently, without other system components. The module interface is tested to ensure that information properly flow into and out of the program.These are tested that the module operates at boundary established to limit or restrict processing. Unit testing is normally considered as an adjunct to the coding step. After the coding has been developed, received and verified for correct syntax, unit testing begins. Here each module is tested to provide its correctness, validity and determine any missing operations and to

verify whether the objectives have been met, errors are noted down and corrected immediately.

Intergration testing

The second step in the testing process is the Integration testing. Integration testing is the systematic technique for constructing the program structure while conducting tests to uncover errors associated with integrating. After the unit test, each

Acceptance testing

validating the fitness-for-use of the system by the business user. The user acceptance test is performed by the users and application managers.

The Operational Acceptance test: also known as Production acceptance test validates whether the system meets the requirements for operation. In most of the organization the operational acceptance test is performed by the system administration before the system is released..

SYSTEM DESING

SYSTEM ARCHITECTURE

module is gradually integrated to form one final system.

Performance testing

A type of Physical test covering a wide range of engineering or functional evaluations where a material, product, or system is not specified by detailed material or component specificationrather, emphasis is on the final measurable performance characteristics. Testing can be a qualitativeor quantitative procedure.

The User Acceptance test: focuses mainly on the functionality thereby

In this section you will get an overview of the .NET Framework architecture, the Web application model, and the configuration system.

The .NET Framework Architecture

To really understand what makes ASP.NET more than just "ASP 4.0" we need to have a look at the underlying .NET Framework architecture.

The .NET Framework architecture is built on top of the operating system services. This framework contains different layers.

In the .NET Framework common language runtime, this resides on top of the operating system services. The common

laage runtime loads and executes code that targets the runtime. This code is therefore called *managed code*. The runtime gives you, for example, the ability for cross-language integration. For that matter it makes use of the common type system, which defines a standard set of types and rules to create new types.

SYSTEM IMPLEMENTATION

Implementation is used here to mean the process of converting a new or revised system design into operational one; conversion is one aspect of implementation. the other aspect is post implementation review and software and maintenance

There are three type of implementation:

- ➢ Implementation of a computer system
- ➢ Implementation of new computer system
- ➢ Implementation of a modified application

SCREENSHOT
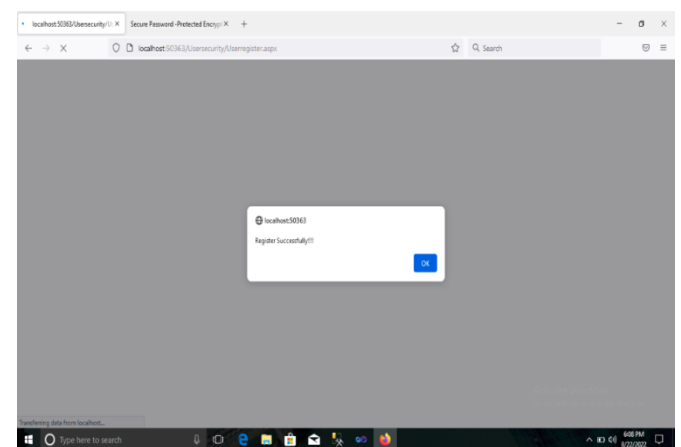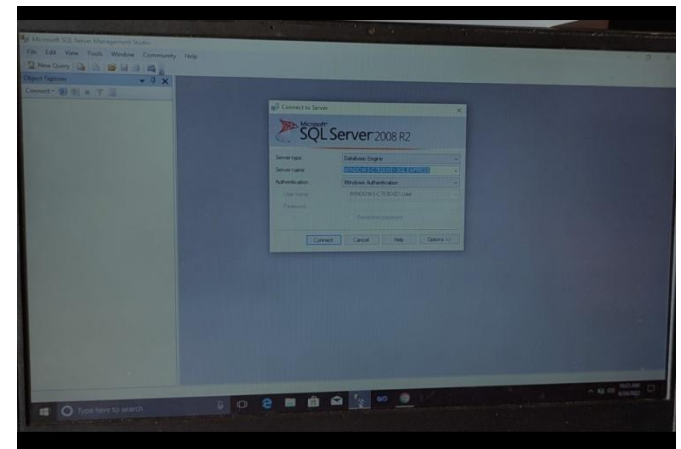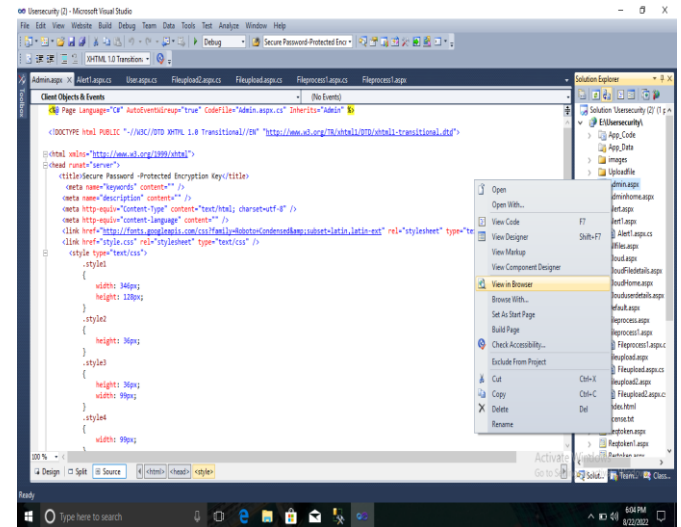
CONCLUSION

In this system, we present a different approach to securing personal and business data in the Cloud. We propose a system to monitor data access patterns by profiling user behavior to determine if and when a malicious insider illegitimately accesses someone's documents in a Cloud service. Decoy documents stored in the Cloud alongside the user's real data also serve as sensors to detect illegitimate access. Once unauthorized data access or exposure is suspected, and later verified, with challenge questions for instance, we inundate the malicious insider with bogus information in order to dilute the user's real data. Such preventive attacks that rely on disinformation technology could provide unprecedented levels of security in the Cloud and in social networks.

FUTURE ENHANCEMENT

Future focus on user-profiling approaches for successful information agents not only on the above aspects but also on the assessment of comprehensible semantically enriched user profiles which will take information agents to the next level .The authors have explained the approaches proposed and developed in current personal agents for the main dimensions of user profiling.

REFERNCE

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