

A FRAMEWORK FOR EXECUTING DIFFERENT OPERATIONS IN CLOUD ENVIRONMENT

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Abstract: Many works were suggested in many types of threats to achieve various benefits for searching like single keyword search, multi-keyword rated search, and so on . Among the individuals works, multi keyword search is becoming more importance because of its realistic effectiveness. We submit a great search method which draws on the tree above encoded cloud information, and it also manages multi-keyword search furthermore to dynamic process on selection of documents. For acquiring of high search effectiveness, we produce a tree-based index structure and propose a formulae using the index tree. The forecasted plan is called to provide multi-keyword query furthermore to a particular result ranking, in addition to the dynamic update of the above document collection. Due to the important structure of tree-based index, forecasted search system will effectively manages the operation of deletion and insertion of documents.

Keywords: Multi-Keyword Ranked Search; Tree-Based Index; Sub-Linear Search; Encrypted Cloud Data; Documents; Result Ranking;

I INTRODUCTION

Cloud Computing is the advanced means of consisting of a set of features such as on-demand network access, least economic overhead and controlling of massive computing sources . Several organizations are enthused to delegate their information towards cloud services. Despite the fact that there are numerous advantages of cloud services, outsourcing of sensitive data toward secluded servers might make privacy issues. The most used way in which is often useful for defense of understanding confidentiality is file encryption within the data sooner than the operation of outsourcing however, this makes elevated cost regarding the usability of understanding. Within the recent occasions several dynamic schemes were introduced for supporting insertion furthermore to deletion techniques on document collection [1].

They are important works since it is achievable that data entrepreneurs require upgrading in the details about cloud server however number of active schemes will manage effective search manner of multi keyword. Our work will submit a great search method which draws on the tree above encoded cloud information, and it also manages multikeyword search furthermore to dynamic process on selection of documents. The sorts of vector space furthermore to broadly used term frequency inverse document frequency representation are pooled in index construction furthermore to question generation of query for providing the rated search manner of multi-keyword. For acquiring of high search effectiveness, we produce a tree-based index structure and propose an formula using the index tree. Due to important structure of tree-based index, forecasted search system will effectively get sub-straight line search serious amounts of manage the operation of deletion furthermore to insertion of documents [2]. The effective nearest neighbor formula enables you to secure index furthermore to question vectors, as well as the moment ensure calculation of accurate relevance score among encoded index in addition to question vectors.

II METHODOLOGY

Numerous works were suggested to attain a number of benefits for search for example single keyword search, multi-keyword rated search, and so forth and multi-keyword kinds of rated search is becoming more importance because of its realistic effectiveness. Lots of scientists have measured several solutions however, they aren't realistic due to high computational overhead for cloud servers furthermore to user. In comparison, more realistic solutions, including the techniques of searchable file encryption have completely finished particular contributions regarding the competence, furthermore to security. The process of searchable file encryption will grant client to collect encoded information towards cloud and execute keyword search above cipher-text

provided. The cloud environment provides support for efficient computing and enables to provide the storage solutions at the remote end. The main aim is to address the following issues in the existing cloud storage:

1. **Data security:** the data is placed on the cloud which is not much secured due to third party access and treads therefore the data security in cloud storage is required
2. **Data owner and client privacy management:** the data owner and client in not distinguishable using the data additionally the privacy on such data is access is required.
3. **Searchable data space:** the cryptographic manner of data security converts the formats and not a bit of data recovered during the information retrieval.

We have discussed above, about the issues and challenges now we will provide the solution steps that are described below. In order to provide end to end solution for the cloud storage the following solution steps are included.

2. **Cryptographic data security:** in this phase the MD5 and AES based hybrid cryptographic algorithm is consumed for providing the security.
3. **Providing the search solution over the encrypted data:** the keyword based search system is provided for identifying the user and their data during different data retrieval operations.

The proposed scheme can be understood using the given figure 5. According to the given figure the proposed security technique involve the following steps of authentication and data preserving technique.

1. Client node is an end client system who wants to store or retrieve the data from the secure server. In this step the end client initiate the authentication by making the request from the server.
2. In this phase the server system trigger the authentication server for finding the user credentials and data attributes and ask for the security questions, in this phase the OTP is applied to make secure the communication between client and server.
3. After authenticating the user access the system ask for user id, password and OTP again here the OTP works as the salt for the encryption and validation.

In this step user initiate the communication and data request from the server, during this the MD5 and AES algorithm is organized for encrypting the data additionally the following information is preserved into the attribute MAP.

1. User ID-Id is used to identify user uniquely. It is provided by server to user when they interact with server first time. And after that when user wants to access the system.

2. Password-Password is a secret key or we can say which is used by user at the time of login. Every user has its own password.

3. Session key-Session key define the particular session or time, as much time user connected with server.

4. Text file features as frequent token.

5. Original file name-OFN is the real name of file by which it is accessed.(stored or retrieved)

6. Mapped file name- MFN is that name by which OFN is mapped and then stored in hash table. So that our original file could remain save.

5. In final step user can access the information and data using the server in this step the KNN algorithm is applied over MAP data for finding the user targeted information from search space.

IV. CONCLUSION

In this paper we discussed various method of searchable encryption to secure the data in cloud storage. Also we discussed about cryptography methods which helps to convert the data from readable to unreadable form so our data could be saved in cloud storage from adversary. Because of recognition of cloud computing, data entrepreneurs must delegate their information towards cloud servers for huge convenience and periodic-listed expenditure in data management. Several researchers have considered numerous solutions however, these techniques aren't realistic because of high computational overhead for cloud servers additionally to user. We submit a good search method which is founded on the tree above encoded cloud information, plus it manages multikeyword search additionally to dynamic process on range of documents. For obtaining of high search effectiveness, we create a tree-based index structure and propose an formula in line with the index tree. The kinds of vector space additionally to broadly used term frequency \times inverse document frequency representation are pooled in index construction additionally to question generation of query for offering the ranked search technique of multi keyword.

Because of significant structure of tree based index, forecasted search system will effectively get sub-straight line search some time to manage the whole process of deletion additionally to insertion of documents. The nearest neighbor formula may be used to secure index additionally to question vectors, but for the moment ensure calculation of accurate relevance score among encoded index furthermore to question vectors. The recommended system will achieve sub-straight line search effectiveness by means of exploring a particular tree-basis index.

V. REFERENCES

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