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# An Efficient Ranked Multi-Keyword Search for Multiple Data Owners over Encrypted Cloud Data

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**ABSTRACT-**With the coming of cloud computing, it has turned out to be providing security for information. In this system, data owner can upload different file. Uploaded is stored in different fragments as well as in replica also for maintaining the security. For protection concerns, secure ventures over encrypted cloud information have motivated a few research works under the single owner model. In our system we developed this system for multiple owner's model with different functionality. In this paper, we propose plans to tree based ranked multi-keyword search scheme for multiple data owners (TBMSM). We efficiently develop novel search protocol based on bilinear pairing, which enables different data owners to use different keys to encrypt their keywords and trapdoors. We can rank the different Multi-keyword search over user; we can search over encrypted data using hash value md5 or SHA 256 algorithm. We can also fuzzy keyword algorithm search technique also used moreover; User can download file at particular place only as well as at particular times only.

**KEYWORDS-** Cloud computing, Multi-keyword ranked Multiple data owners, fuzzy keyword search.

### I. INTRODUCTION

Encryption on touchy information before redistributing can save information protection. Nonetheless, information encryption makes the customary information usage benefit dependent on plaintext catchphrase look through an exceptionally difficult issue. The category of search function, include secure ranked multi-keyword search, and similarity search. Distributed storage framework, is set of storage servers, and gives long storage services over the Internet. Putting away information in an outsider's cloud framework causes grave to connect to over data secret. Typical hidden plans defend data secret however have some limitation to usefulness of the storage framework in light of the fact that a couple of operations are supported over hidden data. Service suppliers of cloud would promise to owner's information security utilizing like virtualization and firewalls. A different data owner can upload this any file in an encrypted format then encrypted index is generated. This encrypted index goes to administrator system. Different data owners can upload files on a cloud so for every file generate encrypted indexes. Data Administrator can re-encrypted index then store on a cloud server. An answer for this issue is to download all the hidden information and make the first information utilizing the hidden key, yet this is not practical cause it make additional overhead. In this paper, Data



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owner can file upload in different type of replica's and fragments .When user can search any file then after checking authentication user get file.If user want to download that file then data user request to data owner.After getting the request user can send the key for download the file. hence , propose when user search keywords that time give the security and demonstrate the bring about positioning structure to make simple cloud servers to perform safe excluding knowing the real value of both keywords and trapdoors, We proposed fuzzy keyword search, using this we can easily search the information. We also introduced any file can download from particular location only.

## II . LITERATURE SURVEY

### 1. Enabling fine grained multi-keyword search supporting classified sub-dictionaries over encrypted cloud data

This paper concept is to refer address this issue by developing the fine-grained multi-keyword search schemes over encrypted cloud. The proposed scheme can support complicated logic search the mixed “AND”, “OR” and “NO” operations of keywords. The upgraded plans supporting ordered sub-word references (FMSCS) to enhance effectiveness .Disadvantage of this system is to develop the highly scalable searchable encryption to enable efficient search on large practical databases.

### 2. Secure ranked multi-keyword search for multiple data owners in cloud computing

In this system, Propose schemes to deal with secure ranked multi-keyword search in a multi-owner model. To rank the search results and preserve the privacy of relevance scores between keywords and files, to enable cloud servers to perform secure search without knowing the actual data of the two catchphrases and trapdoors, we methodically develop a novel secure pursuit convention. We propose a novel Additive Order and Privacy Preserving Proposed. Construct a novel secure search protocol for trapdoor and index. Approach is computationally used only for efficient even for small data set and keyword set Approach is not computationally efficient even for large data set and keyword set.

### 3. Fuzzy keyword search over encrypted data in cloud computing

Formalize and provide solution of the problem of effective fuzzy keyword search over encrypted cloud data as well as preserving keyword privacy. We generate an advanced technique (i.e., wildcard-based technique) to construct the storage-efficient fuzzy keyword sets by exploiting a significant observation on the similarity metric of edit distance. This paper includes the formalization and solution of the problem of effective fuzzy keyword search over encrypted cloud data as well as preserving keyword privacy. An efficient fuzzy keyword search scheme is not proposed based on the constructed fuzzy keyword sets. An fuzzy keyword search scheme is proposed based on the constructed fuzzy keyword sets.

### 4. Load balancing between nodes in a volunteer cloud computing by taking into consideration the number of cloud services replicas

The load balancing between volunteer nodes that provide the cloud services chooses and erases the reproductions of a cloud benefit without corruption of the heap adjusting, utilizing for this the Markov Chain Models. Approach isn't computationally proficient notwithstanding for vast informational index and watchword set. Our answer permits a superior framework unwavering quality and diminishes the reaction time of the clients by disseminating their solicitations between the volunteer hubs.

### 5. A view of cloud computing

In this paper we got all information about cloud computing. We got all kind of information of cloud computing. Different applications passed as services over the Internet and the software systems hardware in the data centres that



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provide those services over Cloud Computing. We got information of different kind of web services as well as where a cloud computing are used. Necessary of cloud computing in a real time application, we also know information about the risk in cloud computing, different classes of utility in in cloud computing and also we got cost estimate of cloud to deploy.

## 6. Practical techniques for searches on encrypted data

In this paper study about framework which describes cryptographic schemes for the problem of searching on encrypted data. It additionally gives confirmations of security to the subsequent crypto frameworks. This plan is provably secure for remote seeking on encoded information utilizing an untrusted server. This framework seeks information remotely from untrusted server. This framework gives the evidences of security that required for crypto frameworks. This framework worked effectively for question disconnection as they are basic and quick. Just  $O(n)$  stream figure required for encryption and inquiry calculation.

## 7. Searchable symmetric encryption: Improved definitions and efficient constructions

A Searchable symmetric encryption (SSE) system is enables a gathering to outsource the capacity of his information to another gathering private, while keeping up the capacity to specifically look over it. The concentration of dynamic research and a few security definitions this issue are occurred. In this framework we propose new and more grounded security definitions. We permit two manifestations that we permit secure under our new definitions. With fulfilling more grounded security guarantees, and this is more proficient than every past development. In new framework chip away at SSE just considered the setting where just the proprietor of the information is equipped for submitting seek questions. We consider the normal expansion where a discretionary gathering of gatherings other than the proprietor can submit look inquiries. We formally characterize SSE in this multi-client setting, and present a productive development

## 8. Secure ranked keyword search over encrypted cloud data

In this system, for the first time we introduce and solve the problem of effective yet secure ranked keyword search over encrypted cloud data. Positioned look extraordinarily improves framework ease of use by restoring the coordinating records in a positioned request in regards to certain pertinence criteria (e.g., catchphrase recurrence), along these lines making one bit nearer towards experimental arrangement of protection safeguarding information facilitating administrations in Cloud Computing. We first give a clear yet perfect development of positioned watchword look under the best in class searchable symmetric encryption (SSE) security definition, and show its wastefulness. To accomplish more handy execution, we at that point propose a definition for positioned accessible symmetric encryption, and give a productive structure by legitimately using the current cryptographic crude, arrange saving symmetric encryption. At particular examination to see that new arrangement appreciates "as-solid as would be prudent" security ensure contrasted with past SSE plans, while effectively understanding the objective of positioned catchphrase seek. Broad trial results show the proficiency of the proposed arrangement.

## 9. Efficient Multi-keyword ranked query on encrypted data in the cloud

In this system, we aim to provide a viable solution for Multi-keyword ranked query problems over encrypted data in the cloud environment. We first introduced the problem, analyse the existing solutions and design a novel algorithm called MKQE to address the issues. MKQE uses a partitioned matrices approach. The encrypted data increases and more keywords need to be introduced, and then the searching infrastructure can be naturally expanded with the minimal overhead. We also design a new trapdoor generation algorithm, which can solve the out-of-order problem in the returned result set without losing the data security and privacy property. Furthermore, the weights of the keywords are taken into consideration in the ranking algorithm when generating the query result. In the proposed, we will explore



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new approaches to further enhance multi-keyword query capabilities. We are designing new algorithms to provide extra functionalities such as semantic query and fuzzy keyword query.

## 10. Secure distributed keyword search in multiple clouds

In this system, for the first time, we explore the problem of secure distributed keyword search in a multi-cloud paradigm. We first introduced a distributed keyword search model. Based on this model, we introduced two schemes. Scheme I proposes to cross-store all encrypted keywords, files and secret keys on cloud servers, which achieves high efficiency and anonymity for data owners, Scheme II introducing to systematically construct a keyword distributing strategy and a file distributing scheme, which achieves convenient search and strong security requirements. In feature, we extend both schemes with Shamir's secret schemes to achieve better availability and robustness. The experiment results demonstrate that both of our schemes can work efficiently based on a real word data set.

## III.EXISTING SYSTEM APPROACH

In old techniques we can secure search over encrypted data has recently attracted the interest of many users. This is the problem of secure search over encrypted data. They propose the origination of accessible encryption, or, in other words crude that empowers clients to play out a watchword constructed look with respect to a scrambled dataset, similarly as on a plaintext dataset. Accessible encryption is additionally created. This user can decrease the storage cost for secure keyword search over encrypted cloud data, and also enrich the category of search function, including secure ranked multi-keyword search, fuzzy keyword search, and similarity search However, all these schemes are limited to the single-owner model. As well as in an existing system architecture, When different data owner can upload this any file encrypted index is generated this encrypted index goes to administrator system. Different data owners can upload files on a cloud so for every file generate encrypted indexes. Data Administrator can re-encrypt index then store on a cloud server. When user can search any file then after checking authentication user get file. If user wants to download that file then data user request to data owner. After getting the request user can send the key for download the file. In this system we can show rank search result.

## IV.PROPOSED SYSTEM APPROACH

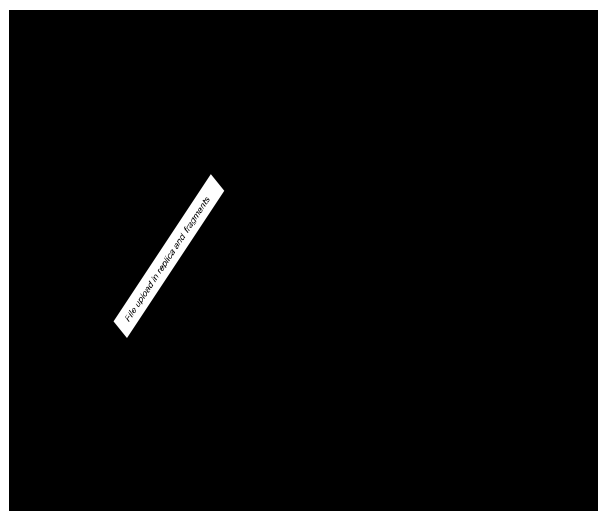


Fig.1 Block Diagram of Proposed System



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In a cloud computing system we are developed the system providing security for information. Encryption on sensitive data before outsourcing can preserve data security. Be that as it may, information encryption makes the conventional information usage benefit dependent on plaintext catchphrase look through an exceptionally difficult issue. In this system, data owners can upload different file in encrypted format. For protection concerns, secure ventures over encrypted cloud information have motivated a few research works under the single owner model. In our system we developed this system for multiple owner's model with different functionality. In this system, we propose plans to tree based ranked multi-keyword search scheme for multiple data owners (TBMSM), We efficiently develop novel search protocol based on bilinear pairing, which enables different data owners to use different keys to encrypt their keywords and trapdoors. We can rank the different Multikeyword search over user; we can search over encrypted data using hash value md5 or SHA 256 algorithm. We can also fuzzy keyword algorithm search technique also used moreover; User can download file at particular place only as well as at particular times only.



**Fig.1 Block Diagram of Proposed System**

## System Flow Diagram:

1. In our proposed system first data owner registration with login with proper authentication.
2. Data owner upload files in encrypted format, in replica's and in fragments this file is store on the cloud.
3. Data User registration and login with proper authentication, After login user search different file with Multi-keyword search, Fuzzy keyword search and Search using hash value also.
4. After Searching user view the file and send request to particular data owner.
5. Data owner accept request and send secret keys to user.



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6. Data user enters secret keys and download file at particular time and particular place.
7. If user enter 3 times wrong key user become attacker. Cloud server views the attackers.

## V. CONCLUSION

The data that is stored over the cloud is encrypted. The encryption of the data has helped in providing a secure method of storage of data. As the data is being stored over the cloud, then it can be accessed by the other authenticated members of the system. The future work can hold the solution to the fuzzy keyword searching mechanism. Data user can download file in particular time and particular place also. we can search over encrypted data using hash value md5 or SHA 256 algorithm. User can download file at particular place only as well as at particular times only.

## VI. FEATURE WORK

In this system data owner can upload only file in text only in feature we upload file in format of image, pdf and video also. Provide more security to the our system.

## VII. ACKNOWLEDGEMENT

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