A Study About Repetition of Group of Data and Avoid the Problem

M. Angelin Rosy[1*], K.Sangeetha[2], M. Felix Xavier Muthu[3]

[1,2]Dept. of MCA, Er.Perumal Manimekalai College of Engineering, Anna University, Hosur, India
[3]Dept. of Mechanical Engineering, St.Xavier's Catholic College of Engineering, Anna University, Nagercoil, India

Corresponding Author: angel_rosym@yahoo.co.in, Tel- 9944579754,

Abstract- Technology is improving day by day, to manage technology by time and trend. To share data in many ways, such as share it, whatsapp, facebook hike and Twitter By using these apps, sharing and storing the data is easy. Technology is improved by innovation and renovation. Cloud is used to store the big data. Users share information through multiple group members in the cloud with low maintenance and costs. Data owner is not able to control over their data. Various techniques are used to support user privacy and data sharing. The use of the mobile devices in cloud computing environment to various kinds of attacks like, unauthorized access. This paper introduces on how to avoid the repetition of data using normalization forms.

Keywords: Database, cloud computing, encryption, decryption, security.

I. INTRODUCTION

Now a day's security plays a major role in all fields. Securing a group data is very essentials. Now a day's people can secure their personal information's. cloud system can be used to enable data sharing capabilities and this can be provide several benefits to the user and organization when the data shared in cloud[2].Now a day's security is very important in all fields to hide their data's. Personal computer has limited storage space [3]. The outsourcing of sensitive information for instance, personal photos, videos, health and histories and so on.[3].The private personal data leakages amongst group member is the significant issue in social network applications. Compared with Iot, the Iot focuses more on the intelligent connection of people, processes, data and things rather than communication between machines and Iot devices.

II. LITERATURE REVIEW

Xinyi Haung et.al introduced identify based (id-based) ring signature, which eliminates the process of certificate verification.

Haung Qinlog et.al suggested an attribute based secure data sharing schema with efficient revocation in cloud computing. Hong Likll et.al proposed a shared authority based privacy pressuring authentication protocol to address the privacy issues for cloud storage.

III. EXISTING SYSTEM

In the existing system the data's were secured. But the existing system fails to discuss about the repeat ion of data. Through the mobile devices in the cloud computing environment has the functionalities similar to the desktop computers, the issues related to security and privacy are more phone to the mobile devices. The trust of the mobile users in MCC platform is established by preserving the user privacy information like, location of the mobile device and protecting data or application secrecy.

IV. PROPOSED SYSTEM

In this paper we present avoid the reputation of data using normalization forms. By avoiding the reputation of data the storage space can be reduced.

V. ENCRYPTION

Encryption could be a method of encryption a message. So that, encryption means isn't perceivable. Encoding is that the method of encryption a message or info in such how that solely approved parties will access it and people who don't seem to be approved cannot. Encoding doesn't itself forestall interference, however denies the intelligible content to a would-be attack aircraft. In Associate so that , encoding theme, the meant info or message, said as plaintext, is encrypted mistreatment Associate in Nursing encoding algorithmic rule – a cipher – generating cipher text that may be browse given that decrypted. For technical reasons, Associate in nursing encoding theme sometimes uses a

pseudo random range encoding key generated by Associate in nursing algorithmic rule. it's in theory doable to decode the message while not possessing the key, but, for a well-designed encoding theme, considerable machine resources and skills are needed. A licensed recipient will simply decode the message with the key provided by the conceiver to recipe to not unauthorized users.
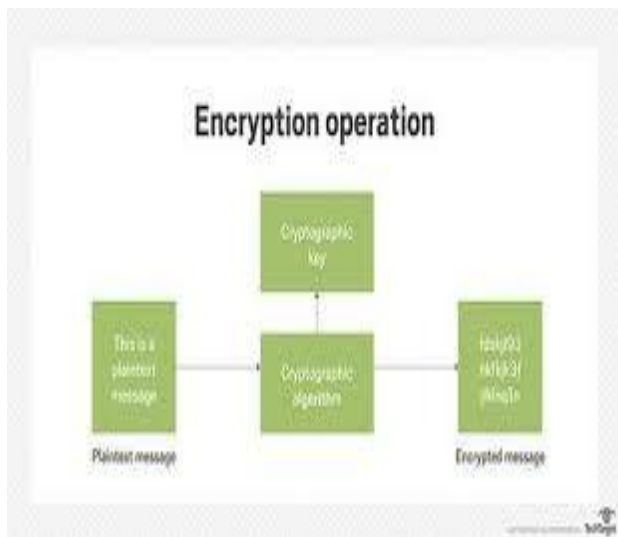

Figure1: Encryption Operation

VI.   DECRYPTION

Decryption is that the reverse method remodeling Associate in Nursing Encrypted text the conversion of encrypted knowledge into its original type is termed secret writing. It's usually a reverse method of encoding. It decodes the encrypted info in order that a licensed user will solely decode the information as a result of secret writing needs a secret key or watchword.
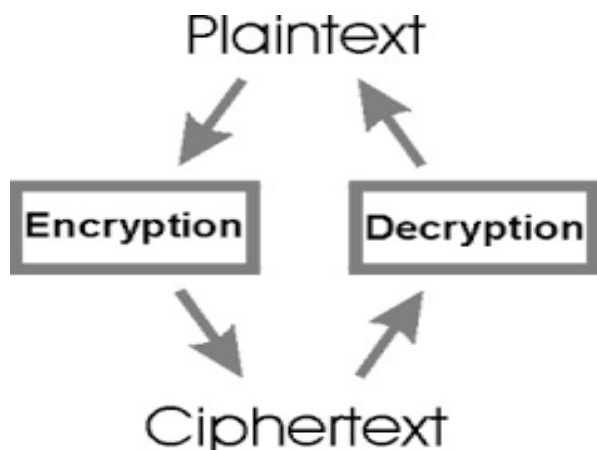

Figure2: Decryption

VII.   CLOUD COMPUTING

Cloud computing makes computer system resources mainly storage and computing power, available on exact without direct active management by the user. The term is commonly used to illustrate data centers available to many users over the Internet. Large clouds, largest today, often have functions distributed over multiple locations from central servers. If the connection to the user is relatively close, it may be selected an Edge server.

Figure3: Cloud computing

VIII. SECURITY

Security is freedom from, or flexibility against, potential harm caused by others. Beneficiaries of security may be of people and social groups, objects and institutions, ecosystems or any other entity or phenomenon vulnerable to unwanted change by its environment. Security mostly refers to protection from unfriendly forces, but it has a wide collection of other senses for example, as the absence of harm as the presence of an essential good as against potential damage or harm as secrecy as control and as a state of mind.

IX. PRIVACY CLOUD COMPUTING

Privacy is the capability of an individual or group to seclude themselves, or information about themselves, and in that way express themselves selectively. The limitations and content of what is considered private differ among culture and persons, but share common themes. When something is private to a *individual*, it usually means that something is naturally special or sensitive to them. The domain of privacy partially overlaps with security which can include the concepts of appropriate use, as well as security of information.

X. DATA REDUNDANCY

Data redundancy is the reality of data that is additional to the actual data and permit correction of errors in stored or transmitted data. The additional data can simply be a complete copy of the actual data, or only select pieces of data that allow finding of errors and renovation of lost or damaged data up to a certain level data redundancy also occurs in database system that have values repeated pointlessly in one or more records or fields, within a table or where the field is replicated/constant in two or more tables. Often this is found in unnormalized database designs and results in the problem of database management, introducing the risk of corrupting the data, and increasing the required amount of storage. When done on purpose from a before normalized database schema, it *may* be considered a form of database renormalizations used to improve performance of database queries.

XI.TRADITIONAL FORMS

Standardization is that the process of organizing an information in a very information. Standardization will be information method technique that organizes tables in a very manner that reduces. Redundancy and dependency of data. It divides larger tables into smaller tables and relations them using relationships. Redundancy and dependency of information. It divides larger tables into smaller tables and links them development relationships.
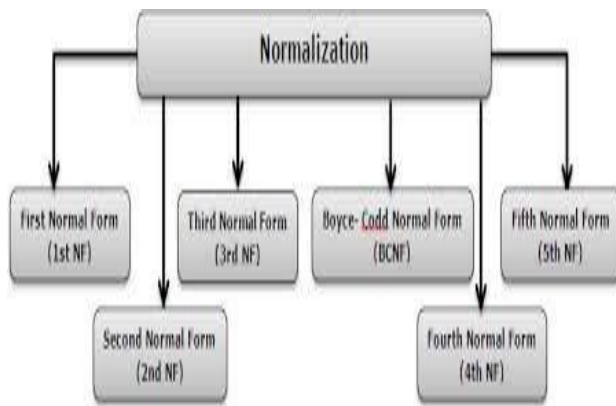

Figure 4: Types Of Traditional Forms

A.1ST TRADITIONAL FORM:
It should be unique traditional form. A relation is said to be in first traditional form if it is already in unnormalized form and it has no repeating group.The relation is in 1TF if it has no repeating groups. It should be dependent on primary key and no repeating groups are related.

EXAMPLE:

Table 1. First Normal Form

TABLE_PRODUCT_PRICE

Product ID	Price
1	15.99
2	23.99
3	17.50
4	9.99
5	29.99

TABLE_PRODUCT_COLOR

Product ID	Color
1	red
1	green
2	yellow
3	green
4	yellow
4	blue
5	red

TABLE_PRODUCT

Product ID	Color	Price
1	red, green	15.99
2	yellow	23.99
3	green	17.50
4	yellow, blue	9.99
5	red	29.99

B.2ND TRADITIONAL FORM:
A relation is said to be in the second traditional form.
If it is already in the first traditional form and it has no partial dependency.
Additionally non-key attributes are fully dependent on the primary key.

EXAMPLE:

Table 2. Second Normal Form

Students

IDSt	LastName	IDProf	Prof	Grade
1	Mueller	3	Schmid	5
2	Meier	2	Borner	4
3	Tobler	1	Bernasconi	6

Startsituation

Result after normalisation

Students

ID	LastName
1	Mueller
2	Meier
3	Tobler

Professors

IDProf	Professor
1	Bernasconi
2	Borner
3	Schmid

Grades

IDStIDProf	Grade	
1	3	5
2	2	4
3	1	6

C.3RD TRADITIONAL FORM:
A relation is said to be in the third traditional form.if it is already in second traditional form and it has no transitive dependency.Third normal form removes dependency among

attributes of relation.Third traditional form finds out the dependency.It should reduce the data duplication.

EXAMPLE:

Table3. Third Normal Form

Book ID	Genre ID	Price
1	1	25.99
2	2	14.99
3	1	10.00
4	3	12.99
5	2	17.99

TABLE_BOOK

Genre ID	Genre Type
1	Gardening
2	Sports
3	Travel

TABLE_GENRE

D.BOYCEE -CODD TRADITIONAL FORM:

Boyce-Codd traditional kind (BCNF) is one among the sorts of info standardization. An info table is in BCNF if and on condition that there are not any non-trivial useful dependencies of attributes on something apart from a superset of a candidate key.BCNF is additionally typically stated as three. 5TF or 3.5 traditional kinds.

E.4th TRADITIONAL FORM:

It should be the 3rd traditional form. It has no multivalued dependency relation must be in boyce-codd normal form. A given relation may not contain more than one multi valued attribute.

EXAMPLE:

Table4. Fourth Normal Form

Table CUSTOMER _ADDRESS

Customer_Name	Address
Raj	New Delhi
Raj	Amritsar
Suneet	Amritsar
Suneet	Batala
Ankit	Qadian

F.5TH TRADITIONAL FORM:

A relation is said to be in 5th traditional form if it is already in 4TF. It has no join dependency .There are no functional dependencies and multi valued dependencies. This relation can be decomposed into three projections.

EXAMPLE:

Table5. Fifth Normal Form

Agent	Company	Product_Name
Suneet	ABC	Nut
Suneet	ABC	Screw
Suneet	ABC	Bolt*
Suneet	CDE	Nut*
Suneet	CDE	Screw*
Suneet	CDE	Bolt
Raj	ABC	Bolt

XII CONCLUSION

In this paper the reputation of data is avoided using traditional forms. In the public shared cloud computing where the data passed through the network which needs to be robust, secure and highly preserved in the sense no one can replicate the data .it enhances security and privacy and also need to privacy as strong-as-possible protection mechanisms, without computational overheads from cloud data owner. It supports privacy and secure data sharing with forward security, secure data sharing for dynamic groups, attribute based data sharing, encrypted data sharing, shared authority based privacy-preserving authentication protocol for access control of outsourced data.

REFERENCE

[1].B .V. varshini, M.Vigilson prem, J.Geethapriya "A review on secure data sharing in cloud computing environment" (ISSN: 2278-1323) vol 6, issue 3, March 2017.

[2] Sathishkumar eswarmoorthy, chunduru anilkumar, usha moorthy, saravan kumar "Review on Dynamic Group Data Sharing in Cloud Environment" (ISSN: 646-656)

[3]Jiale zhang, Bing Chen, yanchao zhao, xiang cheng, and feng hu "Data Security and privacy preserving in edge computing paradigm: survey on open issues"vol7, issue4, April 23, 2018.

[4]Ahmad shah1, dr.penmesta V Krishna raja2 "Security and Privacy for Group Data Sharing Mobile Computing Enviornment" (ISSN 2394-4099)