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An Online Based Approach for Health Care Using Clustering Algorithm with Map Reduce For Scalable Data

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Abstract: ***The world is moving on the speed of the internet. With the increase of internet user's in past years has given rise to multiple online things like booking tickets, shopping. Shopping through internet has paved way to order medicines through online. So, this method is one such online communications of patients and doctors. Effective and authenticated communication is the best way for people to use any kind of internet participation. Here we provide a concept of data anonymization were the details of every single user whether it is a patient, doctor or a third-party user is hidden from another person. The third party user can be split into 3 and they are region, age, disease through which the classification can be done. This third-party user can be any of the government organization of any medicines manufacturing company's or an university taking a survey.***
Key Terms— Big Data; Cloud Computing; MapReduce; Data Anonymization; Proximity Privacy.

I. INTRODUCTION

CLOUD computing and big data, two disruptive trends at present, pose a significant impact on current IT industry and research communities [1, 2]. Today, a large number of big data applications and services have been deployed or migrated into cloud for data mining, processing or sharing. The salient characteristics of cloud computing such as high scalability and pay-asyou-go fashion make big data cheaply and easily accessible to various organizations through public cloud infrastructure. Data sets in many big data applications often contain personal privacy-sensitive data like electronic health records and financial transaction records. As the analysis of these data sets provides profound insights into a number of key areas of society (e.g., healthcare, medical, government services, e-research), the data sets are often shared or released to third party partners or the public. The privacy-sensitive information can be divulged with less effort by an adversary as the coupling of big data with public cloud environments disables some traditional privacy protection measures in cloud [3, 4]. This can bring considerable economic loss or severe social reputation impairment to data owners. As such, sharing or releasing privacy-sensitive data sets to third-parties in cloud will bring about potential privacy concerns, and therefore requires strong privacy preservation.

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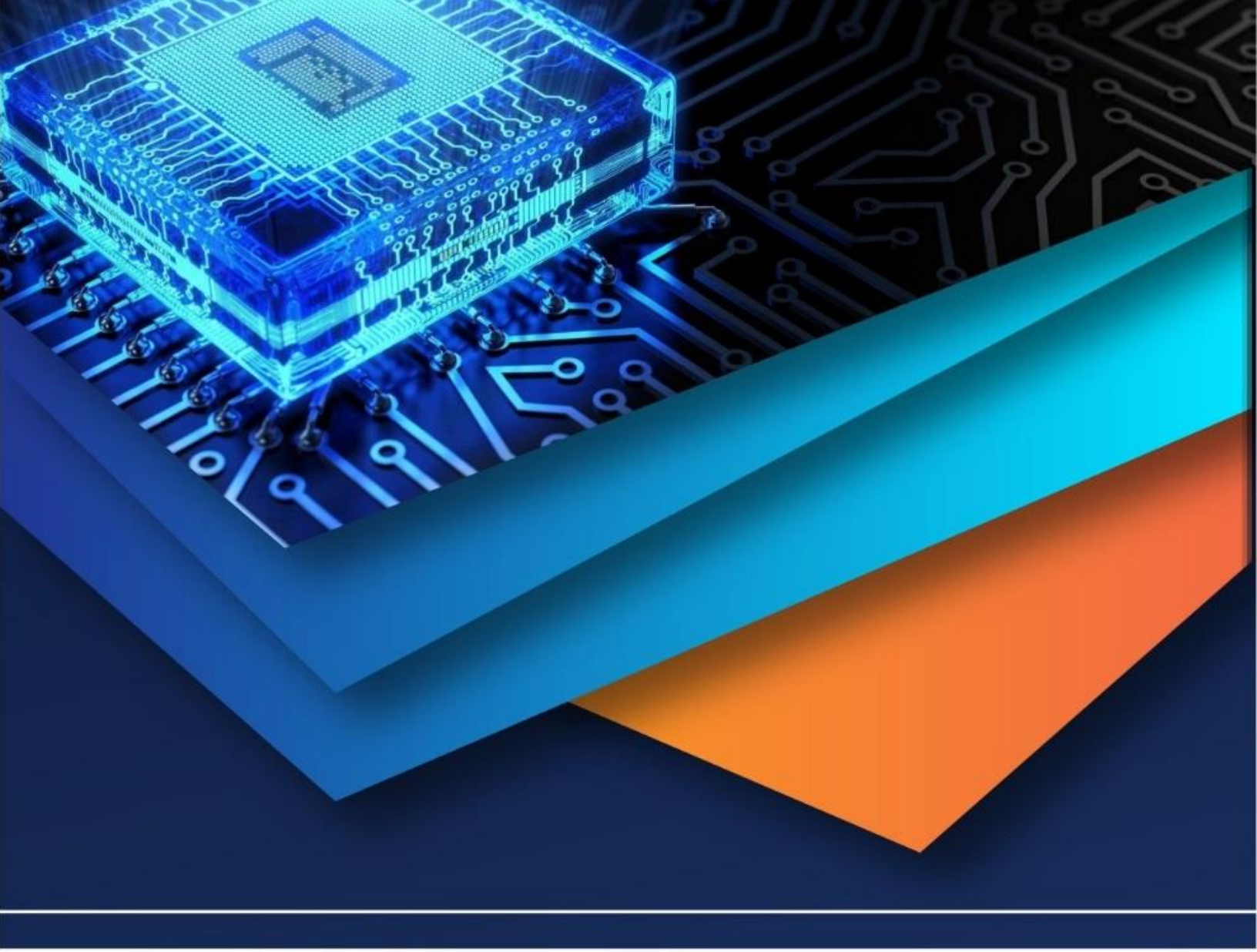
II. CONCLUSIONS

In this paper, local-recoding anonymization for big data in cloud has been investigated from the perspectives of capability of defending proximity privacy breaches, scalability and time-efficiency. We have proposed a proximity privacy model, -dissimilarity, by allowing multiple sensitive attributes and semantic proximity of categorical sensitive values. Since the satisfiability problem of -dissimilarity is NP-hard, the problem of big data local recoding against proximity privacy breaches has been modeled as a proximity-aware clustering problem. We have proposed a scalable two-phase clustering approach based on MapReduce to address the above problem time-efficiently. A series of innovative MapReduce jobs have been developed and coordinated to conduct data-parallel computation. Extensive experiments on realworld data sets have demonstrated that our approach significantly improves the capability of defending proximity attacks, the scalability and the time-efficiency of localrecoding anonymization over existing approaches

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