A

Project Report

On

# CDA GENERATION AND INTEGRATION FOR HEALTH INFORMATION EXCHANGED BASED ON CLOUD COMPUTING SYSTEM

*Submitted to*

Department of

**Computer Science and Engineering**

By


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Of

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**SUMATHI REDDY INSTITUTE OF TECHNOLOGY for WOMEN**

*(Approved by AICTE, New Delhi: Affiliated to JNTU, Hyderabad)*

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**2022-2023**


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**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

## CERTIFICATE

This is to certify that the project entitled **"CDA GENERATION AND INTEGRATION FOR HEALTH INFORMATION EXCHANGED BASED ON CLOUD COMPUTING SYSTEM"** is submitted by SAFURA SIDDIQUA(206Y1A6718), KODAM VEENANJALI(206Y1A6715), MAMIDALA TEJASWINI(216Y5A6703) and SANGEM SHRUTHI(206Y1A6719) to the department of Computer Science and Engineering during academic year 2022-23.

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# ABSTRACT

As an effective and efficient way to provide computing resources and services to customers on demand, cloud computing has become more and more popular. From cloud service providers' perspective, profit is one of the most important considerations, and it is mainly determined by the configuration of a cloud service platform under given market demand.

However, a single long-term renting scheme is usually adopted to configure a cloud platform, which cannot guarantee the service quality but leads to serious resource waste. In this paper, a double resource renting scheme is designed firstly in which short-term renting and long-term renting are combined aiming at the existing issues.

This double renting scheme can effectively guarantee the quality of service of all requests and reduce the resource waste greatly. Secondly, a service system is considered as an queuing model and the performance indicators that affect the profit of our double renting scheme are analyzed, e.g., the average charge, the ratio of requests that need temporary servers, and so forth.

Thirdly, a profit maximization problem is formulated for the double renting scheme and the optimized configuration of a cloud platform is obtained by solving the profit maximization problem. Finally, a series of calculations are conducted to compare the profit of our proposed scheme with that of the single renting scheme. The results show that our scheme can not only guarantee the service quality of all requests, but also obtain more profit than the later.