**A MINI PROJECT REPORT ON**

**Secure file storage on cloud using hybrid cryptography**

***Submitted in partial fulfilment for the award of the degree of***

**BACHELOR OF TECHNOLOGY**

**In**

**COMPUTER SCIENCE AND ENGINEERING**

**By**

**VYAS ANAND : 19Q91A05H9**

**GADDI KARTHIK REDDY : 19Q91A05E0**

**KOLIPAKA CHAITANYA RAJ : 20Q95A0509**

**Under the guidance of**

**Mr. B.SRINIVAS**

**Assistant Professor, Dept. of CSE**

****

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

**MALLA REDDY COLLEGE OF ENGINEERING**

(Approved by AICTE-Permanently Affiliated to JNTU-Hyderabad)

Accredited by NBA & NAAC, Recognized section 2(f) & 12(B) of UGC New Delhi ISO 9001:2015 certified Institution

Maisammaguda, Dhulapally (Post via Kompally), Secunderabad- 500100

**2022 - 2023**

**MALLA REDDY COLLEGE OF ENGINEERING**

(Approved by AICTE-Permanently Affiliated to JNTU-Hyderabad)

Accredited by NBA & NAAC, Recognized section 2(f) & 12(B) of UGC New Delhi ISO 9001:2015 certified Institution

Maisammaguda, Dhulapally (Post via Kompally), Secunderabad- 500100

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

****

**CERTIFICATE**

This is to certify that the Mini Project report on “SECURE FILE STORAGE ON CLOUD USING HYBRID CRYPTOGRAPHY” is successfully done by the following students of Department of Computer Science & Engineering of our college in partial fulfilment of the requirement for the award of B.Tech degree in the year 2022-2023. The results embodied in this report have not been submitted to any other University for the award of any diploma or degree.

**VYAS ANAND : 19Q91A05H9**

**GADDI KARTHIK REDDY : 19Q91A05E0**

**KOLIPAKA CHAITANYA RAJ : 20Q95A0509**

|  |  |
| --- | --- |
| **INTERNAL GUIDE** | **H O D PRINCIPAL** |
| **Dr. G. Radha Devi** | **Dr. G. Radha Devi Dr. M. Sreedhar Reddy** |
| **Asst. Professor** | **Asst. Professor Professor** |

Submitted for the viva voice examination held on: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Internal Examiner External Examiner**

**DECLARATION**

We, VYAS ANAND, GADDI KARTHIK REDDY, KOLIPAKA CHAITANYA RAJ with Regd.no.19Q91A05H9, 19Q91A05E0, 20Q95A0509 are hereby declaring that the mini project report entitled **“**SECURE FILE STORAGE ON CLOUD USING HYBRID CRYPTOGRAPHY**”** has done by us under the guidance of **Mr. B.SRINIVAS** Assistant Professor, Department of CSE is submitted in the partial fulfilment of the requirements for the award of degree of **BACHELOR OF TECHNOLOGY in COMPUTER SCIENCE AND ENGINEERING.**

The Results embeded in this project report have not been submitted to any other University or institute for the award of any degree or diploma.

Signature of the Candidate

**VYAS ANAND 19Q91A05H9**

**GADDI KARTHIK REDDY 19Q91A05E0**

**KOLIPAKA CHAITANYA RAJ 20Q95A0509**

**DATE:**

**PLACE: Maisammaguda**

**ACKNOWLEDGEMENT**

First and foremost, we would like to express our immense gratitude towards our institution Malla Reddy College of Engineering, which helped us to attain profound technical skills in the field of Computer Science & Engineering, there by fulfilling our most cherished goal.

We are pleased to thank **Sri Ch. Malla Reddy**, our Founder, Chairman **MRGI**, **Sri Ch. Mahender Reddy**, Secretary, **MRGI** for providing this opportunity and support throughout the course.

It gives us immense pleasure to acknowledge the perennial inspiration of **Dr. M. Sreedhar Reddy** our beloved principal for his kind co-operation and encouragement in bringing out this task.

We would like to thank **Dr. T. V. Reddy** our vice principal, **Dr. G. Radha Devi** HOD, CSE Department for their inspiration adroit guidance and constructive criticism for successful completion of our degree.

We would like to thank **Dr. G. Radha Devi** Assistant Professor our internal guide, for her valuable suggestions and guidance during the exhibition and completion of this project.

Finally, we avail this opportunity to express our deep gratitude to all staff who have contribute their valuable assistance and support making our project success.

**VYAS ANAND 19Q91A05H9**

**GADDI KARTHIK REDDY 19Q91A05E0**

**KOLIPAKA CHAITANYA RAJ 20Q95A0509**

**ABSTRACT**

High-speed networks and ubiquitous Internet access become available to users for access anywhere at any time. Cloud computing is a concept that treats the resources on the Internet as a unified entity, a cloud. Cloud storage is a model of networked [online storage](http://en.wikipedia.org/wiki/Online_storage) where data is stored in virtualized pools of storage which are generally hosted by third parties. [Hosting](http://en.wikipedia.org/wiki/Internet_hosting_service) companies operate large data centers, and people who require their data to be hosted buy or lease storage capacity from them.

The [data center](http://en.wikipedia.org/wiki/Data_center) operators, in the background, [virtualize](http://en.wikipedia.org/wiki/Storage_virtualization) the resources according to the requirements of the customer and expose them as storage pools, which the customers can themselves use to store files or data objects. Physically, the resource may span across multiple servers.

 Data robustness is a major requirement for storage systems. There have been many proposals of storing data over storage servers. One way to provide data robustness is to replicate a message such that each storage server stores a copy of the message. A decentralized erasure code is suitable for use in a distributed storage system.

We construct a secure cloud storage system that supports the function of secure data forwarding by using an AES and Proxy re encryption.  In this model initial phase owner will upload the data with AES Encryption. Next phase, inside of cloud again the data has divided into small pieces, for this process we will apply a dividing key. Data will place in different storage lactations. The information of data storage will monitor by a unique data distributors. If the valid user accessing the data cloud will retrieve the data as reversible manner.

**TABLE OF CONTENTS**

**CERTIFICATE II**

**DECLARATION III**

**ACKNOWLEDGEMENT IV**

**ABSTRACT V**

**TABLE OF CONTENTS VI**

**LIST OF FIGURES VII**

**LIST OF SCREEN SHOTS VIII**

**LIST OF ABBREVIATIONS 1**

**CHAPTER 1: INTRODUCTION**

1.1 Introduction

**CHAPTER 2: LITERATURE SURVEY**

2.1 Literature survey

**CHAPTER 3: SYSTEM ANALYSIS**

3.1 Existing system

3.2 Drawbacks

3.3 Proposed system

3.4 Advantages

3.5 System Requirements

**CHAPTER 4: SYSTEM DESIGN**

4.1 System architecture

4.2 Modules

4.3 UML Diagrams

**CHAPTER 5: SYSTEM IMPLEMENTATION**

5.1 Java (Programming language)

5.2 Java Server Pages (JSP)

5.3 Servlets- Front end

5.4 Java Database Connectivity (JDBC)

5.7 Source code

**CHAPTER 6: TESTING**

6.1 Testing

**CHAPTER 7: RESULTS**

7.1 Screenshots

**CHAPTER 8: CONCLUSION**

8.1 Conclusion

**CHAPTER 9: FUTURE ENHANCEMENTS**

9.1 Future enhancements

**REFERENCES**

**LIST OF FIGURES**

**Figure No Name of the Figure Page No.**

1. System architecture of the model 9
2. Data flow diagrams 11
3. Use case Diagram 13
4. Sequence Diagram 14
5. Class Diagram 15
6. Collaboration Diagram 16
7. Activity Diagram 17
8. AES 20
9. MD5 22
10. Java Platform 29
11. Architecture of JSP 30,32
12. JDBC architecture 36

**LIST OF SCREEN SHOTS**

**Figure No Name of Screenshot Page No.**

1. Home Page 57

2. Admin Login 57

3. User Registration 58

4. User login page 59

5. File upload page 59

6. Upload Success 60

6. User Registration 60

7 File Select 61

8. Share page 61

9 AES ENCRYPTION DECRYPION 62, 63

**LIST OF ABBREVIATIONS**

**S. No Short Form Full Form**

1. HTTP Hyper Text Transfer Protocol

3. SDK Software Development Kit

4. JRE Java Runtime Environment

5. JSP Java Server Pages

6. ASP Active Server Pages

7. JWS Java Web Server

8. JSDK Java Servlet Development Kit

9. JDBC Java Database Connectivity

10. RDBMS Relational Database Management System

11. JAR Java Archive

12. SFS Secure File Storage

13. HC Hybrid Cryptography

14. CL Cloud

15. LH Local Host

16. USR User

17. SRV Server

18. ENC Encrypt

19. DEC Decrypt

**CHAPTER-1**

**INTRODUCTION**

**CHAPTER-2**

**LITERATURE SURVEY**

**CHAPTER-3**

**SYSTEM ANALYSIS**

**CHAPTER-4**

**SYSTEM DESIGN**

**CHAPTER-5**

**SYSTEM IMPLEMENTATION**

**CHAPTER-6**

**TESTING**

**CHAPTER-7**

**RESULTS**

**CHAPTER-8**

**CONCLUSION**

**CHAPTER-9**

**FUTURE ENHANCEMENTS**