

A
PROJECT REPORT

on

CRYPTORA

Submitted in the Partial Fulfillment of the Requirement for the Award of

Bachelor of Technology

in

Computer Science & Engineering

Submitted By

Pradeep Kumar Yadav
2203610400038

Under the Guidance of

Mr. Narasimha Kanumuri
(Technical Trainer)

Department of Computer Science & Engineering
RRIMT, Lucknow, UP, India



RR INSTITUTE OF MODERN TECHNOLOGY, LUCKNOW, UP, INDIA

(Recognized by AICTE, Govt. of India & Affiliated to Dr. A.P.J. Abdul Kalam Technical University, Lucknow, UP)

AKTU College Code –361

December (2024-25)



RR Institute of Modern Technology, Lucknow

Approved by AICTE, New Delhi & Affiliated to Dr. A P J Abdul Kalam Technical University (Formerly UPTU), Lucknow, India

NH-24, Sitapur Road, Bakshi Ka Talab, Lucknow – 226201, UP

Website: [www. https://rrimt.ac.in/](https://rrimt.ac.in/)

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Vision – Institute

We aspire to assert the significance of a high-quality education by producing competent professionals who can shape the destiny of our nation and provide it with a stronger and more developed stature. We envisage that in this competitive era, we should incorporate a great competitive zeal among the students to make them challenging professionals full of morality, ethics, and confidence, and they should be helpful to developing the nation and society.

Mission – Institute

The mission of promoting bodies is to create a dynamic and collaborative climate to broaden our student's managerial and technical competence and build an institute that is flexible and productive. We aspire to create a workforce of professionals with analytical skills who can dream of a better world and transform the dream into reality.

Department – Vision

To establish a scientific & technical environment that imparts quality education to achieve excellence in the field of Computer Science & Engineering to cater the evolving needs of the industry and the society by maintaining human values, moral and ethics.

Department – Mission

- To provide quality education through state of art infrastructure and by adopting high quality academic practices which enable our students to meet demands of academia, industry, nation and the world at large.
- To motivate students for higher studies, employability and research activities for the betterment of society.
- To induce students with professional behavior, leadership, ethics, morality and Indian values.



RR Institute of Modern Technology, Lucknow

Approved by AICTE, New Delhi & Affiliated to Dr. A P J Abdul Kalam Technical University (Formerly UPTU), Lucknow, India

NH-24, Sitapur Road, Bakshi Ka Talab, Lucknow – 226201, UP

Website: [www. https://rrimt.ac.in/](https://rrimt.ac.in/)

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Department PEOs

- Graduate of the program will be able to apply fundamental and technical knowledge to analyze and provide innovative solutions to the real life problems.
- Graduate of the program will be technically and professionally competent for employability, research & development, higher education and entrepreneurship with a zeal for continuous learning.
- Graduate of the program will be able to work individually as well as in group with sound communicational skills.

Department PSOs

- The graduates should have the excellent capability to solve the problems and do the innovation in the area of algorithm, data sciences, network & securities, deep learning and web application with the help of available tools, technologies and resources.
- The graduates should have ability to apply multidisciplinary approaches to formulate and develop products based on existing knowledge and research for the industry and societal real problems.



RR Institute of Modern Technology, Lucknow

Approved by AICTE, New Delhi & Affiliated to Dr. A P J Abdul Kalam Technical University (Formerly UPTU), Lucknow, India

NH-24, Sitapur Road, Bakshi Ka Talab, Lucknow – 226201, UP

Website: [www. https://rrimt.ac.in/](https://rrimt.ac.in/)

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

PROGRAM OUTCOME

- PO 1 Engineering Knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of *complex engineering problems*.
- PO 2 Problem Analysis:** Identify, formulate, review research literature, and analyze *complex engineering problems* reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- PO 3 Design/development of solutions:** Design solutions for *complex engineering problems* and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- PO 4 Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions
- PO 5 Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to *complex engineering* activities with an understanding of the limitations.
- PO 6 The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- PO 7 Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO 8 Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice
- PO 9 Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- PO 10 Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- PO 11 Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- PO 12 Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.



RR Institute of Modern Technology, Lucknow

Approved by AICTE, New Delhi & Affiliated to Dr. A P J Abdul Kalam Technical University (Formerly UPTU), Lucknow, India

NH-24, Sitapur Road, Bakshi Ka Talab, Lucknow – 226201, UP

Website: [www. https://rrimt.ac.in/](https://rrimt.ac.in/)

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

COURSE OUTCOME

CO1: In a specialization domain of choice, students will be able to choose an appropriate topic for study and will be able to clearly formulate & state a research problem and analyze and understand the real-life problems and apply their knowledge to get programming Solution.

CO2: For a selected Project topic, students will be able to compile the relevant literature and frame hypotheses for project as applicable and engage in the creative design process through the integration and application of diverse technical knowledge and expertise to meet customer need and address social issues.

CO3: For a selected topic, student manager will be able to plan a research design including the sampling, observational, statistical and operational designs if any and Use the various tools and techniques, coding practices for developing real life solution to the problems.

CO4: For a selected topic, student manager will be able to compile relevant data, interpret & analyze it and test the hypotheses wherever applicable and Find out the error in software solution and establishing the process to design maintainable software solution.

CO5: Based on the analysis and interpretation of the data collected, students will be able to arrive at logical conclusions and propose suitable recommendations on the research problem. Student manager will be able to create a logically coherent project report and will be able to defend work in front of a panel of examiners and Write the report about what they are doing in project and learning the team skills.



RR Institute of Modern Technology, Lucknow

Approved by AICTE, New Delhi & Affiliated to Dr. A P J Abdul Kalam Technical University (Formerly UPTU), Lucknow, India

NH-24, Sitapur Road, Bakshi Ka Talab, Lucknow – 226201, UP

Website: [www. https://rrimt.ac.in/](https://rrimt.ac.in/)

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

CERTIFICATE FROM THE DEPARTMENT

This is to certify that the project entitled “**Cryptora**” is a bonafide record of the semester work done by **Pradeep Kumar Yadav (2203610400038)** under my supervision and guidance, in partial fulfillment of the requirements for the Outcome-based Education Paradigm in Department of Computer Science & Engineering from **RR Institute of Modern Technology, Lucknow, UP, India** for the academic year 2023-2024. The Content of this report, in full or in part, have not been submitted to any other institute for the award of any degree.

Mr. Narasimha Kanumuri

(Technical Trainer)

Dept. of Computer Science & Engineering
RRIMT, Lucknow, UP

Mrs. Neha Singh

(HoD)

Dept. of Computer Science & Engineering
RRIMT, Lucknow, UP

Place: Lucknow

Date :



RR Institute of Modern Technology, Lucknow

Approved by AICTE, New Delhi & Affiliated to Dr. A P J Abdul Kalam Technical University (Formerly UPTU), Lucknow, India

NH-24, Sitapur Road, Bakshi Ka Talab, Lucknow – 226201, UP

Website: [www. https://rrimt.ac.in/](https://rrimt.ac.in/)

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

EVALUTION CERTIFICATE

This is to certify that the project entitled “**Cryptora**” is Submitted by **Pradeep Kumar Yadav (2203610400038)** is evaluated for the award of the degree Bachelor of Technology in Department of Computer Science & Engineering from **RR Institute of Modern Technology, Lucknow, UP, India** for the academic year 2024-2025.

Mr. Narasimha Kanumuri
(Technical Trainer)
Dept. of Computer Science & Engineering
RRIMT, Lucknow, UP

Mrs. Neha Singh
(HoD)
Dept. of Computer Science & Engineering
RRIMT, Lucknow, UP

Place: Lucknow

Date:



RR Institute of Modern Technology, Lucknow

Approved by AICTE, New Delhi & Affiliated to Dr. A P J Abdul Kalam Technical University (Formerly UPTU), Lucknow, India

NH-24, Sitapur Road, Bakshi Ka Talab, Lucknow – 226201, UP

Website: [www. https://rrimt.ac.in/](https://rrimt.ac.in/)

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

ACKNOWLEDGEMENT

I would like to express my sincere gratitude to **Mr. Narasimha Kanumuri**, Project Guide, for his valuable guidance, support, and encouragement throughout the duration of this mini project. His expertise and insightful suggestions have been crucial in the successful completion of this project.

I also extend my thanks to the HOD & faculty members of the **Department of Computer Science & Engineering, R.R. Institute of Modern Technology, Lucknow**, for their continuous support and for providing a conducive environment for learning.



RR Institute of Modern Technology, Lucknow

Approved by AICTE, New Delhi & Affiliated to Dr. A P J Abdul Kalam Technical University (Formerly UPTU), Lucknow, India

NH-24, Sitapur Road, Bakshi Ka Talab, Lucknow – 226201, UP

Website: [www. https://rrimt.ac.in/](https://rrimt.ac.in/)

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

PREFACE

This project, "**CRYPTORA**", provides a secure solution for storing and managing passwords. By integrating user login functionality, the system ensures personalized access and enhances digital security using encryption techniques.

I sincerely thank my guide, **Mr. Narasimha Kanumuri**, for his guidance and **Mrs. Neha Singh**, HOD, for her support and encouragement.

This project reflects my efforts to develop a practical solution for secure password management.

CONTENT		
S. No.	Topics	Page No.
1	Cover Page	i
2	Vision, Mission (Institute & Department)	ii
3	PEOs , PSOs	iii
4	Program Outcome	iv
5	Course Outcome	v
6	Certificate form Department	vi
7	Evaluation Certificate (Internal & External)	vii
8	Acknowledgement	viii
9	Preface	ix
10	Content (Index)	x
11	Chapter 1 : Introduction	11 - 12
	1.1 Background	11
	1.2 Objective	11
	1.3 Purpose & Scope	11
	1.4 Limitation	12
12	Chapter 2 : Feasibility Study	13
	2.1 Economic Feasibility	13
	2.2 Technical Feasibility	13
	2.3 Behavioral Feasibility	13
13	Chapter 3 : Requirement & Analysis	14
	3.1 Problem Definition	14
	3.2 Planning & Scheduling	14
	3.3 Software / Hardware Requirements	14
14	Chapter 4 : Survey of Technology	15
	4.1 Previous Work	15
	4.2 Technology Used (Front End, Backend,Database)	15
	4.3 IDE,API, Various Tools	15
15	Chapter 5 : Preliminary Module Description	16-18
16	Chapter 6: Detailed Design	19 - 24
	6.1 Input / Output Screenshot of Project	19 - 21
	6.2 Validation Checks	22 - 24
17	Chapter 7: Testing Techniques	25
18	Chapter 8: Limitations, Future Scope & Enhancements	26
19	Chapter 9 : References & Bibliography	27
	9.1 References	27
	9.2 Bibliography	27