

SECURE CHAT API: ENCRYPTED CHAT APPLICATION PROGRAM INTERFACE WITH BLOCK-CHAIN AUTHENTICATION

PROJECT REPORT

Submitted by

G. GOKUL	812420104027
M. PREMSRIDEV	812420104071
A. RAHMATHULLAH	812420104073
T. SHAIK MOHAMED FAHAD	812420104083

In partial fulfillment for the award of the degree

of

BACHELOR OF ENGINEERING

in

COMPUTER SCIENCE AND ENGINEERING

M.I.E.T. ENGINEERING COLLEGE, TRICHY – 620007

ANNA UNIVERSITY :: CHENNAI – 600 025



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BONAFIDE CERTIFICATE

Certified that this project report “**SECURE CHAT API: ENCRYPTED CHAT APPLICATION PROGRAM INTERFACE WITH BLOCK-CHAIN AUTHENTICATION**” is the Bonafide of “**G. GOKUL**” (812420104027), “**M. PREMSIDEV**” (812420104071), “**A. RAHMATHULLAH**” (812420104073) and “**T. SHAIK MOHAMED FAHAD**” (812420104083) who carried out the project under the supervision.

SIGNATURE

HEAD OF THE DEPARTMENT

Department of Computer Science and
Engineering

M. I. E. T. Engineering College,

Trichy – 620007

SIGNATURE

Mr. P.MANIKANDAN, M.E.,

SUPERVISOR

HEAD OF THE DEPARTMENT

Department of Computer Science
and Engineering

M. I. E. T. Engineering College,

Trichy – 620007

Submitted for the viva-voce held on _____

INTERNAL EXAMINER

EXTERNAL EXAMINER

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ABSTRACT

This project endeavors to construct a Chat API of unparalleled security and reliability, engineered to facilitate encrypted communication within a Chat Application. The endeavor encompasses a multifaceted approach, integrating robust encryption protocols and Block-chain Authentication mechanisms to fortify user identity verification and authentication. Initially, extensive research explores encryption techniques and Block-chain Authentication, scrutinizing their suitability and efficacy for the project's objectives. Subsequently, meticulous design and development ensue, crafting the architecture of the Chat API to seamlessly incorporate advanced encryption protocols, notably Fernet, and Block-chain Authentication via smart contracts. The implementation phase is characterized by a commitment to coding excellence, ensuring optimal performance, and maintainability of the Chat API. By prioritizing security without compromising usability, the Chat API aspires to empower users with a trustworthy platform for confidential communication, safeguarding their digital interactions in the face of evolving cybersecurity challenges.