

**SECURED BANKING TRANSACTION USING  
ADVANCED HASH KEY GENERATION IN  
BLOCKCHAIN TECHNOLOGY**

**A PROJECT REPORT**

*Submitted by*

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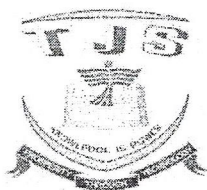
*in partial fulfillment for the award of the degree*

*of*

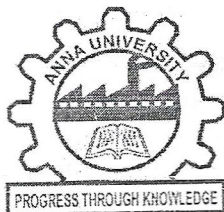
**BACHELOR OF ENGINEERING**

**IN**

**COMPUTER SCIENCE AND ENGINEERING**



**T.J.S ENGINEERING COLLEGE, PERUVOYAL**



**ANNA UNIVERSITY: CHENNAI 600 025**

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**BONAFIDE CERTIFICATE**

Certified that this project report "SECURED BANKING TRANSACTION USING ADVANCED HASH KEY GENERATION IN BLOCKCHAIN TECHNOLOGY" is the bonafide work of the following students.


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who carried out the project work under my supervision.

  
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Submitted for the viva voce examination held on .22.06.22...at  
T.J.S Engineering College, Peruvoyal.

  
**INTERNAL EXAMINER**

  
**EXTERNAL EXAMINER**


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## ABSTRACT

This paper deals with the design and implementation of "Secured banking transaction using advanced hash key generation in blockchain technology". The majority of banks offer many different online services to their customers and our study case will focus specifically on domestic and international banking transactions. By doing these services, these banks use enough time to conduct bank transactions from one bank account to another, some of which take more than a week, under a security that does not fully respect the privacy of operators and under the mercy of certain third party's services. Unfortunately, these banks face the limitations of payment systems (such as SWIFT, SEPA, and union pay) for international transactions and other banking exchange services. To remedy these problems of third-party trust, exaggerated latency, payment of high transaction fees, problems of theft and falsification of banking information, we will set up a storage and bank exchange platform, based on a private and confidential blockchain. In this platform, a number of authorized users will be able to hold and operate the nodes that will support the network. Nowhere in the world is there a system that directly connects banks, currencies and financial institutions without a trusted third party. In our case, these sworn users are banks. To begin with, This platform will eliminate third-party trust, promote user-user transactions and then store bank transaction information in the blockchain. Our blockchain platform will allow users to make secure and confidential transactions at a lower cost and without a foreign exchange ban due to a maximum amount not to exceed as with the case of banks. One such limitation is the high processing and electrical costs that come from the Proof-of-Work consensus protocol. In this paper, we propose an alternative proof-by-approval protocol which is a more advanced form of the proof-of-reputation protocol, that offers better security and is a more decentralized approach than the former at the cost of being less.



  
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**OBJECTIVES:**

- To understand Object Oriented Programming concepts and basic characteristics of Java
- To know the principles of packages, inheritance and interfaces
- To define exceptions and use I/O streams
- To develop a java application with threads and generics classes
- To design and build simple Graphical User Interfaces

<b>UNIT I</b>	<b>INTRODUCTION TO OOP AND JAVA FUNDAMENTALS</b>	<b>10</b>
Object Oriented Programming - Abstraction – objects and classes - Encapsulation- Inheritance - Polymorphism- OOP in Java – Characteristics of Java – The Java Environment - Java Source File -Structure – Compilation. Fundamental Programming Structures in Java – Defining classes in Java – constructors, methods-access specifiers - static members -Comments, Data Types, Variables, Operators, Control Flow, Arrays , Packages - JavaDoc comments.		
<b>UNIT II</b>	<b>INHERITANCE AND INTERFACES</b>	<b>9</b>
Inheritance – Super classes- sub classes –Protected members – constructors in sub classes- theObject class – abstract classes and methods- final methods and classes – Interfaces – defining an interface, implementing interface, differences between classes and interfaces and extending interfaces - Object cloning -inner classes, Array Lists - Strings		
<b>UNIT III</b>	<b>EXCEPTION HANDLING AND I/O</b>	<b>9</b>
Exceptions - exception hierarchy - throwing and catching exceptions – built-in exceptions, creating own exceptions, Stack Trace Elements. Input / Output Basics – Streams – Byte streams and Character streams – Reading and Writing Console – Reading and Writing Files		
<b>UNIT IV</b>	<b>MULTITHREADING AND GENERIC PROGRAMMING</b>	<b>8</b>
Differences between multi-threading and multitasking, thread life cycle, creating threads,synchronizing threads, Inter-thread communication, daemon threads, thread groups. Generic Programming – Generic classes – generic methods – Bounded Types – Restrictions and Limitations.		
<b>UNIT V</b>	<b>EVENT DRIVEN PROGRAMMING</b>	<b>9</b>
Graphics programming - Frame – Components - working with 2D shapes - Using color, fonts, and images - Basics of event handling - event handlers - adapter classes - actions - mouse events -AWT event hierarchy - Introduction to Swing – layout management - Swing Components – Text Fields , Text Areas – Buttons- Check Boxes – Radio Buttons – Lists- choices- Scrollbars – Windows –Menus – Dialog Boxes.		

**TOTAL: 45 PERIODS****OUTCOMES:****Upon completion of the course, students will be able to:**

- Develop Java programs using OOP principles
- Develop Java programs with the concepts inheritance and interfaces
- Build Java applications using exceptions and I/O streams
- Develop Java applications with threads and generics classes
- Develop interactive Java programs using swings

**TEXT BOOKS:**

1. Herbert Schildt, –Java The complete reference||, 8th Edition, McGraw Hill Education, 2011.
2. Roy S. Horstmann, Gary cornell, –Core Java Volume –I Fundamentals||, 9th Edition, Prentice Hall, 2013.

  
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