



# Bank Management ATM System

A Simple ATM Simulation with MySQL Integration

Presented By:

Muhammad Bin Faisal

Muhammad Raza Meer Hayat

Muhammad Saif Ali Khan



# Introduction to the ATM System



## Purpose

Simulate basic ATM functionality



## Efficiency

Replaces manual processes digitally



## Technology

Built with Java and MySQL

# Core System Objectives



## Enable Operations

Essential banking from computer interface



## Enhance Experience

Secure, responsive user design



## Secure Login

PIN-based authentication system



# Technologies Utilized

## Frontend

Java Swing for GUI

## Backend

Java (Object-Oriented Programming)

## Database

MySQL for persistent storage

## Future Expansion

Apache Server Pages for web integration

# Key Functionalities



## Account Management

Create/Open  
New Accounts



## User Access

Login with PIN



## Funds Operations

Deposit and  
Withdraw  
Funds



## Balance Inquiry

View Account  
Details





# Additional Features

## Funds Transfer

- Local, Domestic, International

## History & Statements

- View Transaction History

## User Control

- Change Password and PIN

## Account Closure

- Close Account Function





# Database Schema

Users Table

Personal info, login  
credentials

UserID, Username,  
Password, PIN,  
Name, Address

Accounts Table

Links accounts to  
users, balances

AccountID, UserID,  
AccountType,  
Balance

Transactions Table

Logs all  
transactions for  
auditing

TransactionID,  
AccountID, Type,  
Amount, Date

# Security Measures

## PIN Protection

Secure login access



## User Control

Changeable password/PIN



## Input Validation

Prevents unauthorized access



# Conclusion & Future Scope

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## Efficient Simulation

Delivers effective ATM operations

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## Data Integrity

Ensures persistence and secure access

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## Future Enhancements

Online portal, mobile integration, enhanced security