

# Main Java Project: Online Banking System with Database and GUI

## Project Overview

- A realistic banking application with complete features for both **customers and admin**.
  - Customers can:
    - Create accounts
    - Deposit/withdraw money
    - Transfer money
    - View transaction history
  - Admin can:
    - Manage accounts (CRUD)
    - View all customers
    - Generate reports
  - **Data stored in a database** (MySQL) for persistence.
  - **GUI implemented using Java Swing or JavaFX** for professional look.
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## Core Features

1. **User Authentication:**
    - Login and registration system
    - Role-based access: Admin/Customer
  2. **Banking Operations:**
    - Deposit, Withdraw, Transfer
    - Transaction history for each account
  3. **Admin Panel:**
    - Manage accounts
    - Search and update customer info
    - Generate reports
  4. **Data Persistence:**
    - Store all accounts and transactions in **MySQL**
    - Optional: Backup to CSV
  5. **GUI Interface:**
    - Professional interface using **Swing/JavaFX**
    - Forms for account creation, transactions, and admin dashboard
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## Skills Demonstrated

- **OOP Concepts:** Classes, Objects, Inheritance, Encapsulation, Polymorphism

- **Database Connectivity:** JDBC, SQL queries
  - **GUI Development:** Swing/JavaFX
  - **Collections & Exception Handling**
  - **File Handling or Report Generation**
  - **Real-world problem solving & logical thinking**
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### Why It's Job-Worthy

- Simulates a **real banking system**, which companies understand easily
  - Shows **full-stack Java skills** (core Java + database + GUI)
  - Can be extended with advanced features:
    - Multi-user login
    - PDF report generation
    - ATM simulation
  - Makes a **strong impression in interviews**
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#### **Pro Tip:**

If you implement this with **GUI + MySQL database + proper OOP design**, it becomes a **major project**, not a mini project, and **can single-handedly strengthen your resume** for IT job applications.