

Bank Management System - Java Mini Project

This is a console-based Java application designed to simulate the core functionalities of a real-world banking system.

It provides a simple and interactive way for users to perform banking operations such as:

- Creating new accounts with automatically generated unique account numbers
- Depositing and withdrawing money with proper balance checks
- Viewing account details including account holder name, type (Checking or Savings), current balance, and full transaction history
- Maintaining transaction history with timestamps for every deposit and withdrawal

The application ensures data persistence by saving all account information into a file (accounts.txt) when the program exits,

and automatically loading the saved data when the program starts. It features strong input validation and error handling

to prevent invalid transactions and ensure a smooth user experience.

Key Highlights:

- Fully object-oriented design using separate classes for system operations and account management
- Exception handling to manage invalid inputs and runtime errors gracefully
- Persistent storage using file handling to keep account data safe between sessions
- Modular structure making the code easy to understand, maintain, and extend
- Transaction logging to keep a timestamped record of all account activities

- Can be easily expanded with features like login authentication, admin controls, and GUI integration

Conclusion:

This project is a practical demonstration of Java fundamentals including OOP concepts (Classes, Objects, Encapsulation), file handling, and collection frameworks (HashMap, ArrayList). It replicates essential banking operations in a simple, user-friendly manner, making it an excellent mini-project for learning, practice, and presentation.

Project Creator:

Your Name Here