

Bank Account Project

Overview

BankAccountProject is a simple Java-based banking system built using **Maven** and tested with **JUnit 5**.

It demonstrates the core functionalities of a banking application such as **deposit**, **withdrawal**, **transfer**, and **interest calculation**.

This project is great for **beginners learning Java, OOP principles, and Maven testing setup**.

Features

-  **Deposit money** into your account
 -  **Withdraw money** safely
 -  **Transfer funds** between two accounts
 -  **Calculate interest** based on rate and years
 -  **JUnit 5 Test Cases** for automated testing
 -  **Maven-based project structure** for easy build and management
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Technologies Used

Component	Description
Language	Java 17
Build Tool	Apache Maven
Testing Framework	JUnit 5
IDE Support	IntelliJ IDEA / Eclipse / VS Code

Project Structure

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Copy code

BankAccountProject

 └─ pom.xml

 └─ src

 └─ main

 └─ java

 └─ com

 └─ bank

 └─ BankAccount.java

 └─ Main.java

 └─ test

 └─ java

 └─ com

 └─ bank

 └─ BankAccountTest.java

How to Run

Step 1: Compile the Project

`mvn clean compile`

Step 2: Run All Tests

`mvn test`

Concepts Covered

- **Object-Oriented Programming (OOP)**
(Encapsulation, Constructors, Method Calling)
 - **JUnit Testing** for validation
 - **Maven lifecycle** (compile, test, exec)
 - **Java project modular structure**
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Future Enhancements

- Add **transaction history logs**
- Include **minimum balance check**
- Add **user input (interactive console)** version
- Connect with a **database (MySQL / MongoDB)**