package bank\_management\_system;

public class SavingsAccount extends Account {

private static final double MIN\_BALANCE = 100.0;

private static final double INTEREST\_RATE = 0.02;

public SavingsAccount(String accountHolderName, double initialBalance) {

super(accountHolderName, initialBalance);

if (initialBalance < MIN\_BALANCE) {

System.out.println("Warning: Initial balance for Savings Account is below recommended minimum of $" + MIN\_BALANCE);

}

}

public void withdraw(double amount) {

if (amount <= 0) {

System.out.println("Withdrawal amount must be positive.");

return;

}

if (getBalance() - amount < MIN\_BALANCE) {

System.out.println("Withdrawal denied: Minimum balance of $" + MIN\_BALANCE + " must be maintained.");

} else {

updateBalance(-amount);

addTransaction("Withdrawal", -amount);

System.out.println("Withdrew $" + String.format("%.2f", amount) + " successfully. New balance: $" + String.format("%.2f", getBalance()));

}

}

public void applyInterest() {

double interest = getBalance() \* INTEREST\_RATE;

deposit(interest); // Use the deposit method to add interest as a transaction

System.out.println("Interest of $" + String.format("%.2f", interest) + " applied. New balance: $" + String.format("%.2f", getBalance()));

}

}