Threads Assignment

Problem: Multi-threading and Synchronization

Problem Statement:
Create a Java program that demonstrates the concept of multi-threading and synchronization. Implement a shared BankAccount class where multiple threads (representing different users) try to withdraw money concurrently. Use synchronization to ensure that the account balance does not become inconsistent.

Requirements:
- Create a BankAccount class with an initial balance.
- Implement a withdraw() method that ensures synchronized access.
- Create multiple threads that try to withdraw money from the same account.
- Ensure that withdrawals do not allow the balance to go negative.

Input Format:
- The initial balance of the bank account.
- Multiple withdrawal amounts requested by different threads.

Constraints:
- The balance should be a non-negative integer.
- Each withdrawal amount should be a positive integer.

Output Format:
- Print the remaining balance after each successful withdrawal.
- Display a message if a withdrawal cannot be processed due to insufficient funds.

Example:
Input:
Initial Balance: 1000
Withdrawals: 300, 500, 400

Output:

Withdrawal of 300 successful. Remaining balance: 700
Withdrawal of 500 successful. Remaining balance: 200
Insufficient balance for withdrawal of 400