

Bank Exercise

Case: BP Aye! (Bank of Pirates Aye!) is a bank recently put up for pirates. Pirates who wish to keep their plunder in the bank are required to open accounts. Accounts are differentiated from each other by their unique account numbers and the name of the account's owner. Account owners are able to deposit gold, silver or copper coins into their accounts as well as withdraw from it. To keep pirates' interest in the bank, it offers an annual interest of 1 silver coin for every 100 gold coins, 5 copper coins for every 100 silver coins and 1 copper coin for every 100 copper coins. Pirates are able to view their current account balance, their interest rates at the end of the year and account balance at the end of the year (account balance + interest).

Tasks:

1. Write your class diagram.
2. Implement the Driver class and create the accounts detailed below.

Account #	Account Name	Gold	Silver	Copper
11-00-22	Jack Sparrow	500	223	75
13-98-57	Hector Barbosa	300	189	300
98-43-21	Will Turner	450	600	18

3. After creating the accounts, display the account balance, interest rate at the end of the year and account balance at the end of the year of each pirates' account. Use the following format:

Account Number: <Account Number>

Account Name: <Account Name>

Balance: <Gold> gold, <Silver> silver, <Copper> copper

Interest at year's end: <Gold> gold, <Silver> silver, <Copper> copper

Balance at the end of the year: <Gold> gold, <Silver> silver, <Copper> copper

4. Deposit 200 gold coins to Jack Sparrow's account and display all information about his account.
5. Withdraw 100 silver coins from Hector Barbosa's account and display all information about his account.