College of Computer Studies
Laboratory Activity Form

Course Number	CSIT 228
Course Title	OOP in Java
Topics Covered:	Class definition, composition
Objectives:	Design and implement a class in Java using composition.

Description

Define a Mobile class with attributes: String mobilenumber.
Include the following methods:
- Getter and setter method for the attribute
- Override toString method

Define a Name class with attributes: A **name** has firstname, middlename and lastname. Include in name Mobile (the one previously defined….one person has name and one person is expected to have one mobile number).
Include the following methods:
- A constructor with 3 parameters. Initialize the 3 member variables to the parameters being passed. Also, include the default constructor.
- getter and setter methods for all attributes
- override toString method

Define a class called ATMCard. An ATM card has a card number, Name (use the class defined above) and balance.

a) Include a constructor with 3 parameters. Initialize the 3 member variables to the parameters being passed. Also, include the default constructor.

b) Include getters/setters for all attributes.

c) Add the following member functions:
- float checkBalance()
- float depositMoney(float amount)
  //increases the *balance* with *amount*
- boolean withdrawMoney(float amount)
  // returns true if sufficient amount is available for withdrawal and decreases the *balance* by *amount*
- float interest(float rate)
  //calculates the interest rate incurred. Assume the parameter rate is considered as annual interest. Update the balance available.

d) Override the toString() method

In a separate class called TestATMCardClass, define a main method which will work as follows:

Enter name: <<Juan dela Cruz>>
Enter account number: A101-1125
Enter beginning balance: 1000.00

DEBIT CARD TRANSACTION
[1] Deposit Cash

[2] Wihdraw Cash
[3] Inquire Balance
[4] Calculate Interest Rate
[5] Exit

Your choice: 1

Enter amount: 500.50

Enter name: <<Juan dela Cruz>>
Enter account number: A101-1125
Enter beginning balance: 1500.50

DEBIT CARD TRANSACTION
[1] Deposit Cash
[2] Wihdraw Cash
[3] Inquire Balance
[4] Calculate Interest Rate
[5] Exit

Your choice: 2

Enter amount: 200.00

Enter name: <<Juan dela Cruz>>
Enter account number: A101-1125
Enter beginning balance: 1300.50

DEBIT CARD TRANSACTION
[1] Deposit Cash
[2] Wihdraw Cash
[3] Inquire Balance
[4] Calculate Interest Rate
[5] Exit

Your choice: 2

Enter amount: 1500.00

INSUFFICIENT FUNDS

DEBIT CARD TRANSACTION
[1] Deposit Cash
[2] Wihdraw Cash
[3] Inquire Balance
[4] Calculate Interest Rate
[5] Exit

Your choice: 3

Enter name: <<Juan dela Cruz>>
Enter account number: A101-1125
Enter beginning balance: 1300.50

DEBIT CARD TRANSACTION
[1] Deposit Cash
[2] Wihdraw Cash
[3] Inquire Balance
[4] Calculate Interest Rate
[5] Exit

Your choice: 4

Enter rate: 3.5

Interest Incurred: 3.79

Enter name: <<Juan dela Cruz>>
Enter account number: A101-1125
Enter beginning balance: 1304.29

DEBIT CARD TRANSACTION
[1] Deposit Cash
[2] Wihdraw Cash
[3] Inquire Balance
[4] Calculate Interest Rate
[5] Exit

Your choice: 5

PRESS ANY KEY TO CONTINUE…

Remarks