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Object Oriented Programming I

Lab Sheet 7 Composition

1. A). Create a class called **Customer** that includes three instance variables: id (int), name (String) and gender (char). The class contains:

- A constructor that creates a Customer with the specified id, name and gender.
- Provide get methods for each instance variable.
- Provide a method toString takes no arguments and returns "name(id)".
- Write a test program called **TestCustomer** to test the Customer class.

B). Create a class called **Account** that includes three instance variables: accNo (int), customer (of the class Customer you have just created, assume that each account has one and only one customer) and balance (double(initialized to 0.0)). The class contains:

- Two constructors:

```
+Account(id:int,customer:Customer,  
        balance:double)  
+Account(id:int,customer:Customer)
```

Provide get methods for each instance variable.

- Provide set balance method.
- Provide a method toString takes no arguments and returns "name(id) balance = Rs xx.xx" (Balance rounded to 2 decimal places).
- Provide a method called deposit that deposit money to an Account (Add deposit amount to balance).
- Provide a method called withdraw that withdraws money from an Account.
if (balance >= amount)
balance = balance - amount
else
print a message "Withdraw amount exceeded account balance."
- Write a test program called **TestAccount** to test the Account class.