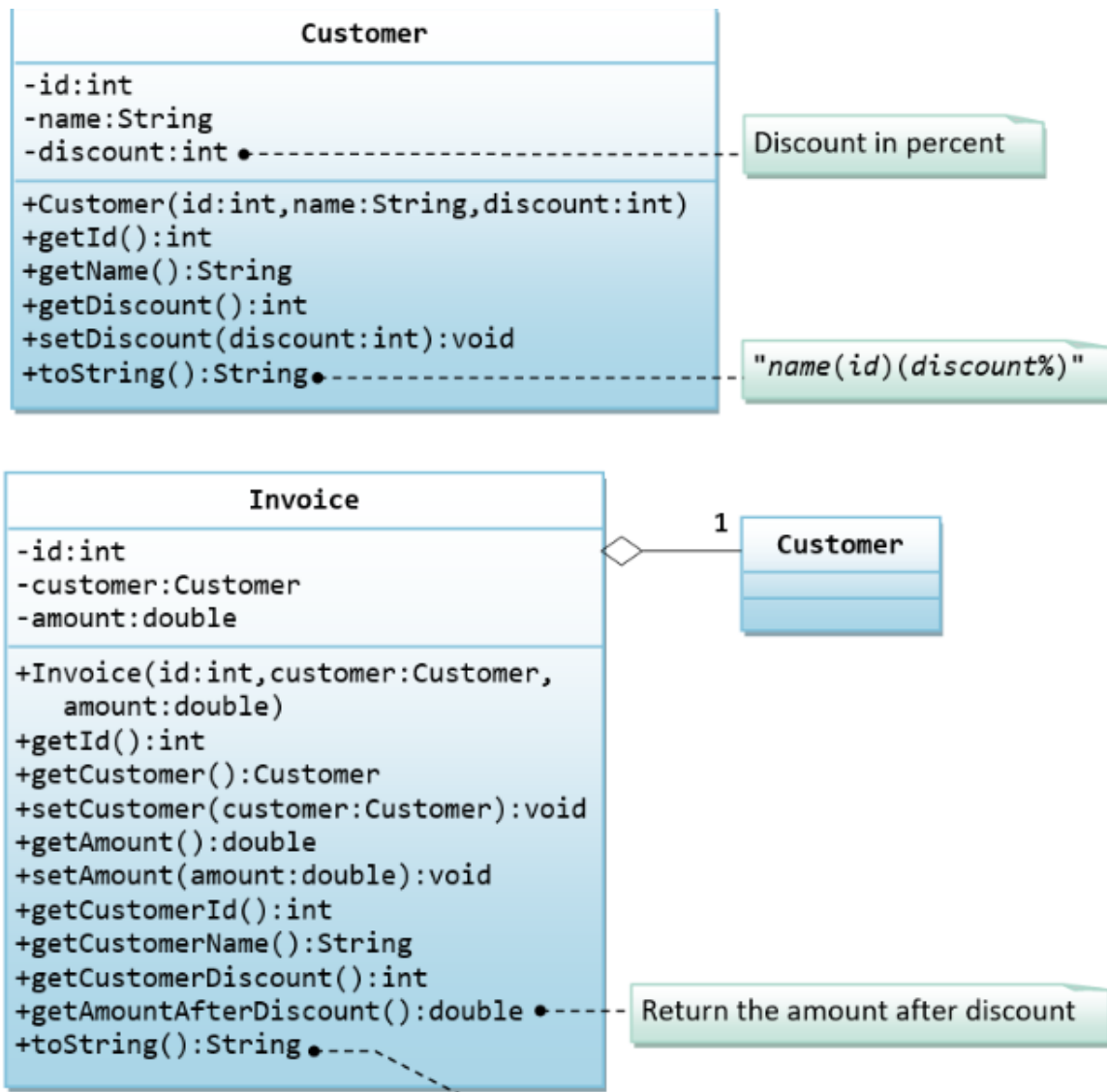# Lab 5

Intake 49

1. Suppose, there is an interface **Movable** which contains four functions MoveUp(), MoveDown(), MoveLeft(), MoveRight(). Two classes named MovablePoint and MovableCircle must inherit the interface. MovablePoint class have 4 variables (x,y,x_speed,y_speed) and one parameterized constructor, one display_info() function. MovableCircle class have radius variable, one parameterized constructor and one display_info() function. **You must remember that, a moving circle must have moving points.** Complete the above scenario.

2.

```
                  Customer
-id:int
-name:String
-discount:int •- - - - - - - - - - - - - - - - - - - - - -   Discount in percent
+Customer(id:int,name:String,discount:int)
+getId():int
+getName():String
+getDiscount():int
+setDiscount(discount:int):void
+toString():String•- - - - - - - - - - - - - - - -    "name(id)(discount%)"
```

```
                  Invoice                        1       Customer
-id:int
-customer:Customer
-amount:double
+Invoice(id:int,customer:Customer,
    amount:double)
+getId():int
+getCustomer():Customer
+setCustomer(customer:Customer):void
+getAmount():double
+setAmount(amount:double):void
+getCustomerId():int
+getCustomerName():String
+getCustomerDiscount():int
+getAmountAfterDiscount():double •- - - - - Return the amount after discount
+toString():String•- - - -
```

Implement the above scenario.

3. Suppose there is an animal class which must be inherited by Man, Dog and Bird classes. Every animal has Eyes. Eyes can be blue colored or brown. A person may have a car whereas dog or Bird cannot have a car. Implement the scenario using JAVA.