

1.

CLASS Order

```
PUBLIC customer_name
PUBLIC customer_number
PUBLIC quantity_ordered
PUBLIC unit_price

PUBLIC FUNCTION setCustomerName(name)
    customer_name = name
ENDFUNCTION

PUBLIC FUNCTION setCustomerNumber(number)
    customer_number = number
ENDFUNCTION

PUBLIC FUNCTION setQuantityOrdered(quantity)
    quantity_ordered = quantity
ENDFUNCTION

PUBLIC FUNCTION setUnitPrice(price)
    unit_price = price
ENDFUNCTION

PUBLIC FUNCTION getCustomerName
    RETURN customer_name
ENDFUNCTION

PUBLIC FUNCTION getCustomerNumber
    RETURN customer_number
ENDFUNCTION

PUBLIC FUNCTION getQuantityOrdered
    RETURN quantity_ordered
ENDFUNCTION

PUBLIC FUNCTION getUnitPrice
    RETURN unit_price
ENDFUNCTION

PUBLIC FUNCTION computePrice
    total_price = quantity_ordered * unit_price
    RETURN total_price
ENDFUNCTION
```

ENDCLASS

Order
customer_name:String customer_number:Integer quantity_ordered:Integer unit_price:Integer
setCustomerName() setCustomerNumber() setQuantityOrdered() setUnitPrice() getCustomerName() getCustomerNumber() getQuantityOrdered() getUnitPrice() computePrice()

2.

```
CLASS ShippedOrder EXTENDS Order
```

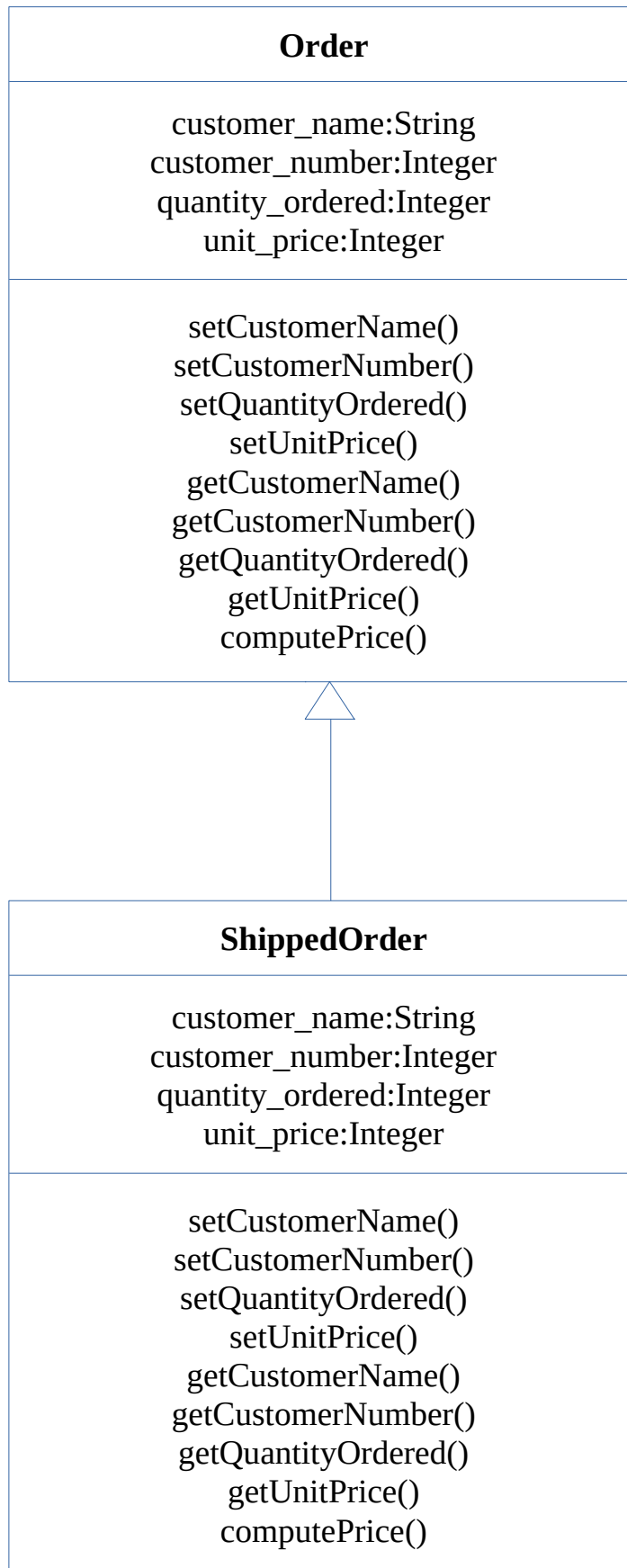
```
    PUBLIC FUNCTION computePrice
```

```
        total_price = (quantity_ordered * unit_price) + 4.00
```

```
        RETURN total_price
```

```
    ENDFUNCTION
```

```
ENDCLASS
```



3.

```
orderObj = NEW Order()
shippedOrderObj = NEW ShippedOrder()
```

```
PRINT "Enter customer name for Order"
INPUT customer_name_order
orderObj.setCustomerName(customer_name_order)
```

```
PRINT "Enter customer number for Order"
INPUT customer_number_order
orderObj.setCustomerNumber(customer_number_order)
```

```
PRINT "Enter quantity ordered for Order"
INPUT quantity_ordered_order
orderObj.setQuantityOrdered(quantity_ordered_order)
```

```
PRINT "Enter unit price for Order"
INPUT unit_price_order
orderObj.setCustomerName(unit_price_order)
```

```
PRINT "Customer name: ", orderObj.getCustomerName()
PRINT "Customer number: ", orderObj.getCustomerNumber()
PRINT "Quantity ordered: ", orderObj.getQuantityOrdered()
PRINT "Unit price: ", orderObj.getUnitPrice()
PRINT "Total price: ", orderObj.computePrice()
```

```
PRINT "Enter customer name for ShippedOrder"
INPUT customer_name_shippedorder
shippedOrderObj.setCustomerName(customer_name_shippedorder)
```

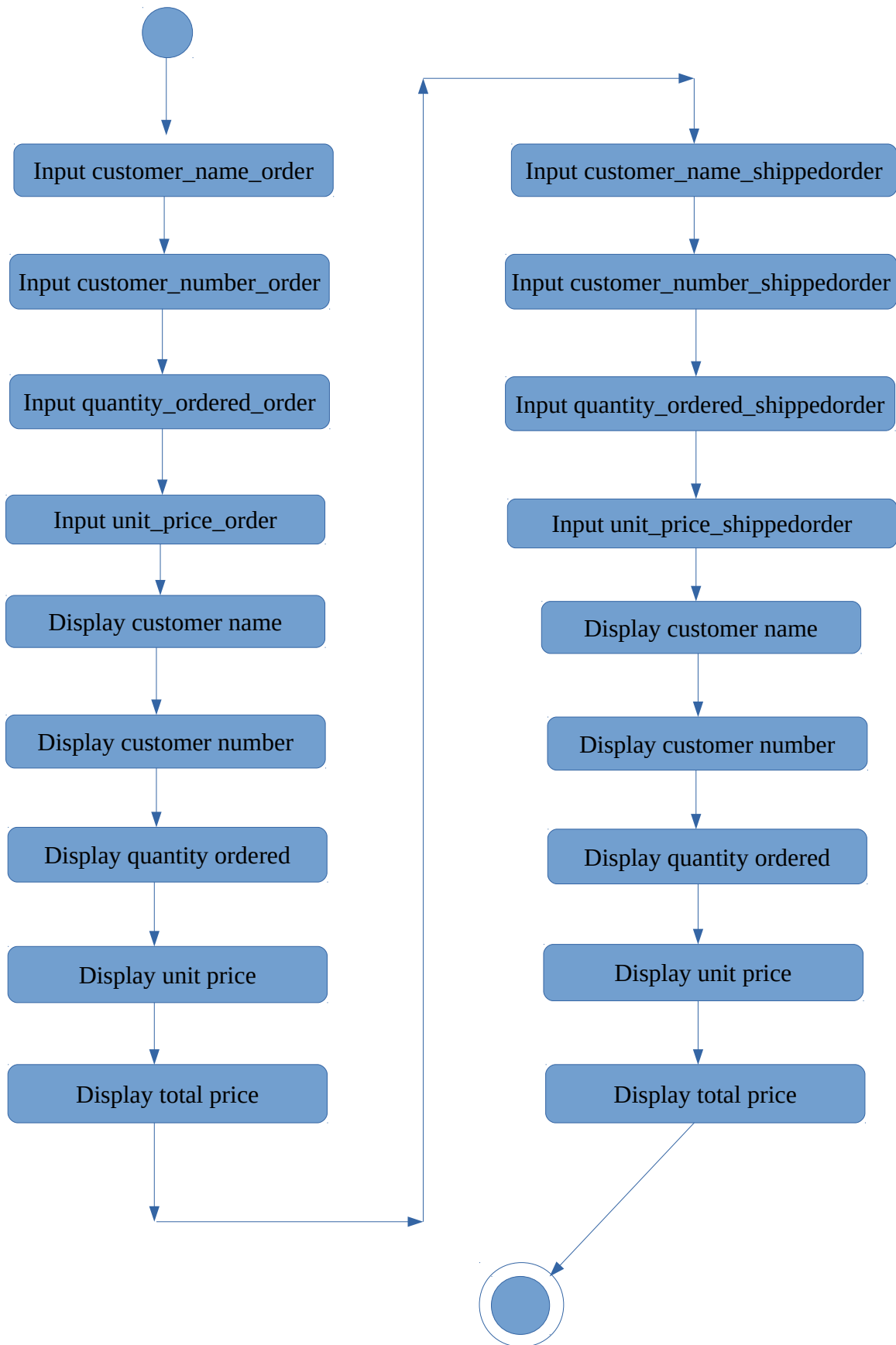
```
PRINT "Enter customer number for ShippedOrder"
INPUT customer_number_shippedorder
shippedOrderObj.setCustomerNumber(customer_number_shippedorder)
```

```
PRINT "Enter quantity ordered for ShippedOrder"
INPUT quantity_ordered_shippedorder
shippedOrderObj.setQuantityOrdered(quantity_ordered_shippedorder)
```

```
PRINT "Enter unit price for ShippedOrder"
INPUT unit_price_shippedorder
shippedOrderObj.setCustomerName(unit_price_shippedorder)
```

```
PRINT "Customer name: ", shippedOrderObj.getCustomerName()
PRINT "Customer number: ", shippedOrderObj.getCustomerNumber()
PRINT "Quantity ordered: ", shippedOrderObj.getQuantityOrdered()
PRINT "Unit price: ", shippedOrderObj.getUnitPrice()
PRINT "Total price: ", shippedOrderObj.computePrice()
```

Activity Diagram



```

4.
orders[10]
array_length = 0

FOR i = 0 to 9
    PRINT "Will the order be shipped (yes/no)"
    INPUT ship

    IF ship = "yes"
        orderObj = NEW ShippedOrder()
    ELSE
        orderObj = NEW Order()
    ENDIF

    PRINT "Enter customer name"
    INPUT customer_name

    IF customer_name = "ZZZ"
        ENDFOR
    ENDIF

    orderObj.setCustomerName(customer_name)

    PRINT "Enter customer number"
    INPUT customer_number
    orderObj.setCustomerNumber(customer_number)

    PRINT "Enter quantity ordere"
    INPUT quantity_ordered
    orderObj.setQuantityOrdered(quantity_ordered)

    PRINT "Enter unit price"
    INPUT unit_price
    orderObj.setCustomerName(unit_price)

    orders[i] = orderObj
    array_length = array_length + 1
ENDFOR

FOR i = 0 to array_length
    PRINT "Customer name: ", orders[i].getCustomerName()
    PRINT "Customer number: ", orders[i].getCustomerNumber()
    PRINT "Quantity ordered: ", orders[i].getQuantityOrdered()
    PRINT "Unit price: ", orders[i].getUnitPrice()
    PRINT "Total price: ", orders[i].computePrice()
ENDFOR

```

