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Group 9

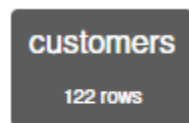
Relational Algebra 1

1. List all rows from Customer

Code:

```
customers
```

Graphical representation:



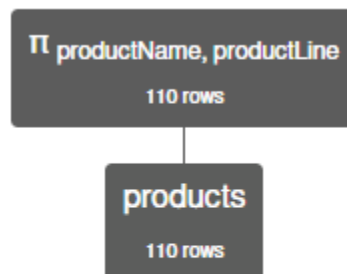
customers

2. List the productName and the ProductLine that the product belongs to for all products.

Code:

```
 $\pi$  productName, productLine (products)
```

Graphical representation:



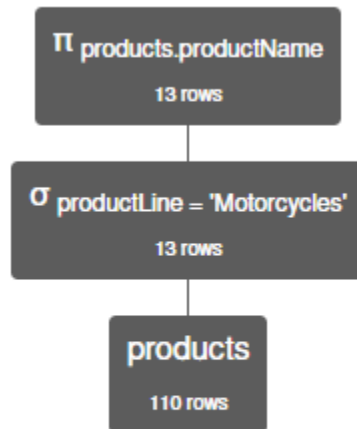
π productName, productLine (products)

3. List all ProductNames where the ProductLine is 'Motorcycles'

Code:

```
 $\pi$  products.productName  $\sigma$  productLine = 'Motorcycles' (products)
```

Graphical representation:



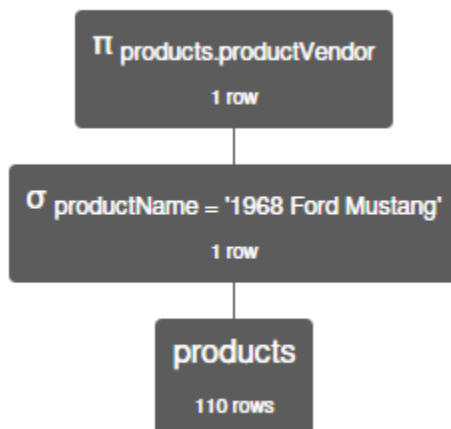
π products.productName σ productLine = 'Motorcycles' (products)

4. List the Vendor for the product whose productName is '1968 Ford Mustang'.

Code:

```
 $\pi$  products.productVendor  $\sigma$  productName = '1968 Ford Mustang' (products)
```

Graphical representation:

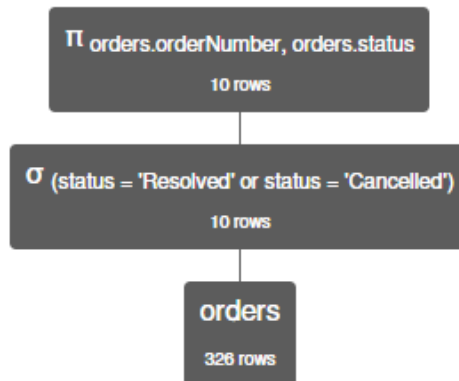


5. List the Order Number, Order Status where the Order Status is 'Resolved' or 'Cancelled'

Code:

```
π orders.orderNumber, orders.status σ (status = 'Resolved' or status = 'Cancelled')  
(orders)
```

Graphical representation:



```
π orders.orderNumber, orders.status σ (status = 'Resolved' or status = 'Cancelled')  
( orders )
```

6. List the Order Number and Shipped Date for Orders that the Order Status is 'Shipped' and the Shipped Date is greater than Required Date.

Code:

```
π orderNumber, ShippedDate (σ status = 'Shipped' AND ShippedDate > requiredDate  
(orders))
```

Graphical representation:

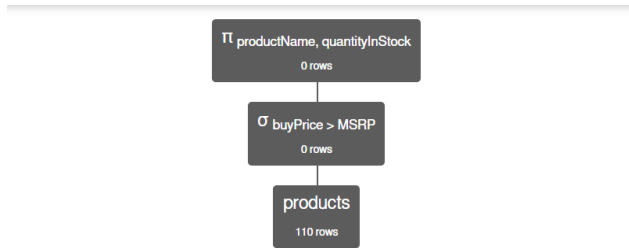


7. List the ProductName and Quantity in Stock where the BuyPrice is greater than the MSRP

Code:

```
Π productName, quantityInStock (σ buyPrice > MSRP (products))
```

Graphical representation:



```
Π productName, quantityInStock ( σ buyPrice > MSRP ( products ) )
```

products.productName	products.quantityInStock
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