Group Project – SQL Injectors

DESIGN OF IMPLEMENTED FUNCTIONS

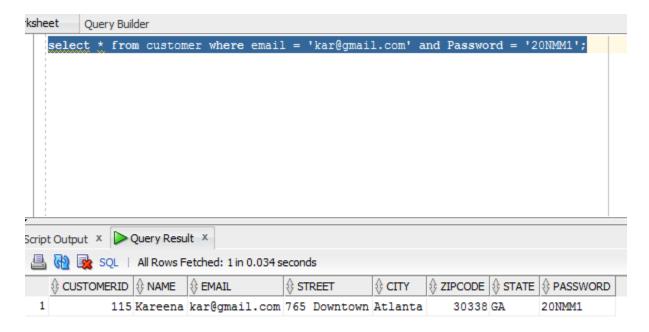
1. Customer Login

A customer logins to system, using username(email) and password. If the record is found, customer authenticates and login to system.

SQL Statement

select * from customer where email = 'kar@gmail.com' and Password = '20NMM1';

Table Name	Display Fields
customer	All Fields



If the record is not found, customer can sign up and create account.

To create account customer can enter his username email and password

Customer Name— Jiya Rahman Email — <u>jiya.rahman@gmail.com</u> Password - ****** Sql Statement —

INSERT INTO CUSTOMER (CUSTOMERID, NAME, EMAIL, PASSWORD) VALUES

```
('117', 'Jiya', 'jiya.rahman@gmail.com', '1212B1');
```

Commit;

Table Name	Display Fields
	CUSTOMERID
	NAME
	EMAIL
customer	PASSWORD

2. Customer can update Address

After creation or upon creation of customeraccount , customer can enter his address details into the system .

```
UPDATE Customer Set Street = '328 Deerfield',
City = 'ALpharetta',
ZipCode = '30004',
State = 'CA'
Where Email = 'jiya.rahman@gmail.com';
Commit;
```

Table Name	Update Fields
	Street
	Street
	ZipCode
customer	State

```
INSERT INTO CUSTOMER (CUSTOMERID, NAME, EMAIL, PASSWORD) VALUES

('117', 'Jiya', 'jiya.rahman@gmail.com', '1212B1');

Commit;

select * from CUSTOMER where CUSTOMERID = 116.

Script Output *  Query Result *

Script Output *  Query Result *

Script Output *  Query Result *

CUSTOMERID $\frac{1}{2}$ All Rows Fetched: 1 in 0.034 seconds

$\frac{1}{2}$ CUSTOMERID $\frac{1}{2}$ NAME $\frac{1}{2}$ EMAIL $\frac{1}{2}$ STREET $\frac{1}{2}$ CITY $\frac{1}{2}$ ZIPCODE $\frac{1}{2}$ STATE $\frac{1}{2}$ PASSWORD

1 116 Jiya jiya.rahman@gmail.com 328 Deerfield Alpharetta 30004 GA 1212B1
```

3. Customer can delete his account

Delete from Customer Where Email = 'jiya.rahman@gmail.com';

🖺 🙀 🗽 SQL | All Rows Fetched: 0 in 0.03 seconds

Delete from Customer Where Email = 'jiya.rahman@gmail.com';

Select * from Customer Where Email = 'jiya.rahman@gmail.com';

.

ipt Output * Query Result *

⊕ CITY

⊕ STATE

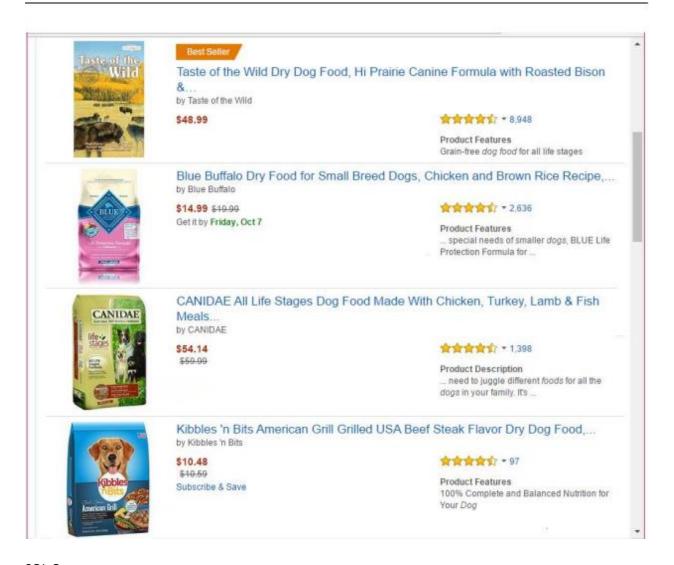
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4. Product List Screen

⊕ CUSTOME... ⊕ NAME

When Customer successfully logins into to system, customer can see the list of all products:

⊕ STREET



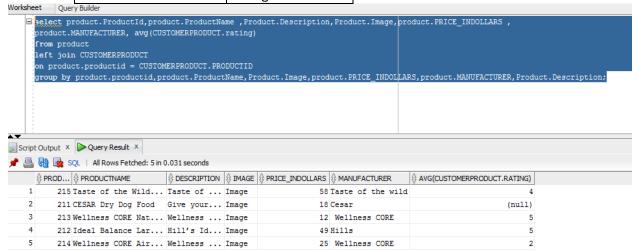
SQL Query -

select product.ProductId, product.ProductName, Product.Description, Product.Image, product.PRICE_INDOLLARS, product.MANUFACTURER, avg(CUSTOMERPRODUCT.rating) from product

left join CUSTOMERPRODUCT

on product.productid = CUSTOMERPRODUCT.PRODUCTID group by product.productid, product.ProductName, Product.Image, product.PRICE_INDOLLARS, product.MANUFACTURER, Product.Description;

Table Name	Display Fields
	ProductId
	ProductName
	Description
	Image
	PRICE_INDOLLARS
product	MANUFACTURER
CUSTOMERPRODUCT	rating



5. Product Details

While browsing, when a customer clicks on a product, he/she could see all details about the product like price, size, dimensions, shipping weight, model number, description, manufacturer, feature, rating, headline, review, question, answer related to the product.

Tables Involved:

Table Name	Display Fields
	Name, Price,
	Discount, Size,
	Dimensions,
	ShippingWeight,
	ModelNumber,
	Description,Image,
Product	Manufacturer
ProductFeature	Feature
	Rating, Headline,
CustomerProduct	Review
ProductQuestionnaire	Question, Answer

Assuming that the customer clicks on Product with ProductID =212. The information can be retrieved through following sql queries:

SQL Statements:

Select P.ProductID, P.ProductName, P.PRICE_INDOLLARS, P.DISCOUNT_INDOLLARS, P.PRODUCTSIZE_INPOUNDS, P.DIMENSIONS_ININCHES, P.SHIPPINGWEIGHT_INPOUNDS, P.ModelNumber, P.Description, P.Image, P.Manufacturer,

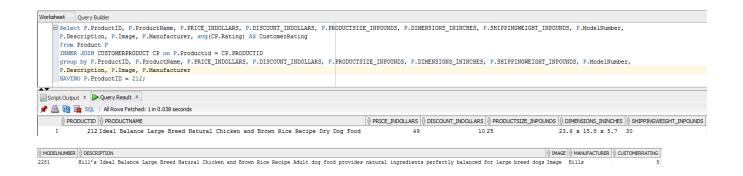
avg(CP.Rating) AS CustomerRating

from Product P

INNER JOIN CUSTOMERPRODUCT CP on P.Productid = CP.PRODUCTID

group by P.ProductID, P.ProductName, P.PRICE_INDOLLARS, P.DISCOUNT_INDOLLARS, P.PRODUCTSIZE_INPOUNDS, P.DIMENSIONS_ININCHES, P.SHIPPINGWEIGHT_INPOUNDS, P.ModelNumber, P.Description, P.Image, P.Manufacturer

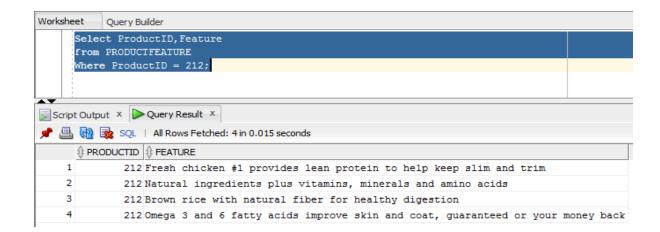
HAVING P.ProductID = 212;



Select ProductID, Feature

from PRODUCTFEATURE

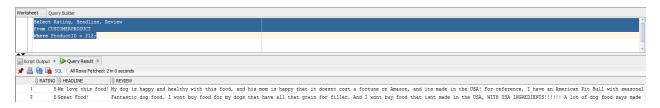
Where ProductID = 212;



Select Rating, Headline, Review

from CUSTOMERPRODUCT

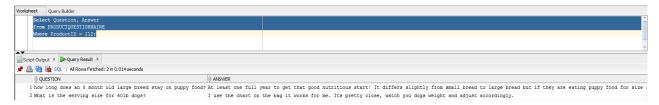
Where ProductID = 212;



Select Question, Answer

from PRODUCTQUESTIONNAIRE

Where ProductID = 212;



6. Update Product Features

On the backend, we can update the features of a product if required. E.g., For ProductID – 211, one of the features is 'This gourmet dog food is specially crafted with 26 nutrients that small breed dogs need' (ProductFeatureID -3). We want to change this to 'This gourmet dog food is specially crafted with 30 nutrients that small breed dogs need'.

Tables involved:

Table Name	Update Fields	
ProductFeature	Feature	

SQL Statement:

Update PRODUCTFEATURE

SET FEATURE = 'This gourmet dog food is specially crafted with 30 nutrients that small breed dogs need'

Where ProductID = 211 and Feature = 'This gourmet dog food is specially crafted with 26 nutrients that small breed dogs need';

Table before change:

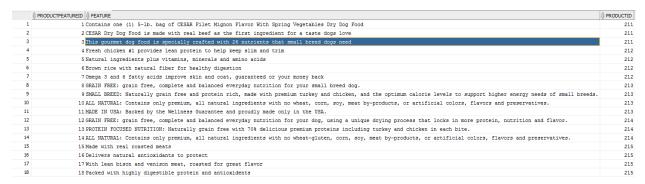
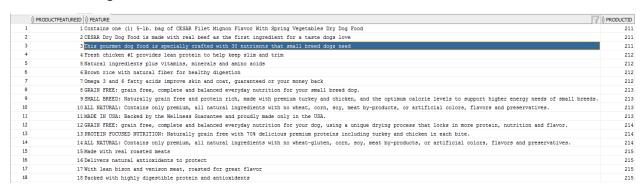


Table after change:



7. Customer can modify his/her review

A customer is allowed to update the review he/she provided for a particular product. E.g. – A customer (customerID -111) wants to update his/her review of a product (ProductID – 214) from 'Unfortunately both my wheaten terriers are skipping meals when I add this to their kibble. I am not sure why they dont like it.' To 'My dogs dislike it.'

Tables involved:

Table Name	Update Fields
CustomerProduct	Review

SQL query:

Update CUSTOMERPRODUCT

SET REVIEW = 'My dogs dislike it.'

Where CUSTOMERID =111 and PRODUCTID = 214;

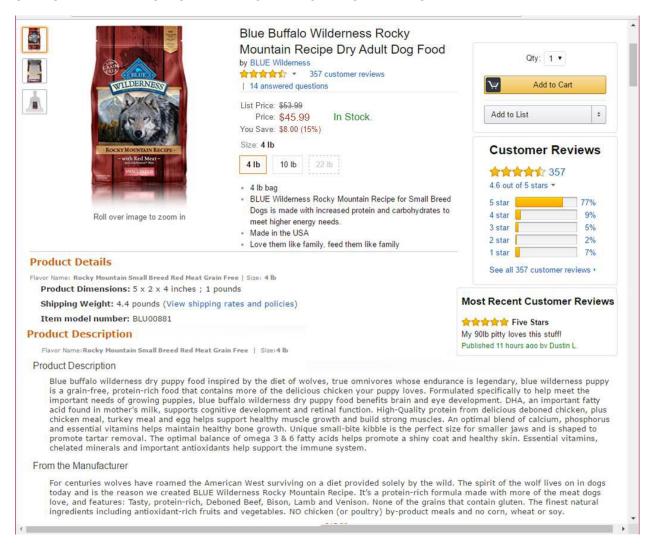
Table before change:

	A	A	A I	^ = .==. l	A	A
3	CUSTOMERPRODUCTID	⊕ CUSTOMERID	PRODUCTID	⊕ RATING	HEADLINE	∯ REVIEW
1	100	111	212	5	We love this food!	My dog is happy and healthy with this food, and his mom is happy that it doesnt cost a fortune on Amazon, an
2	101	113	212	5	Great Food!	Fantastic dog food. I wont buy food for my dogs that have all that grain for filler. And I wont buy food tha
3	102	111	215	5	My dogs are wild about this food !!!	My dogs like this better than any other food I have fed them. Its pain protein is duck and duck was recommen
4	103	112	215	3	High quality on a budget if youre willing to compromise	I loved this product for the time being while seeing what budget friendly high quality foods my dog would li
5	104	114	215	4	Price Increase Reduces Value	This food used to be \$43-44 with Prime. Price increase makes it not worth it - this used to be a high qualit
6	105	113	213	5	Excellent grain free Weight Control food!	I free feed both my boys and my schnauzer tends to the heavier side than his poodle brother. Both are doing
7	106	112	213	5	Tastes great.	Most grain free dog foods use Potatoes or Sweet Potatoes for the main grain free ingredient. This uses Chick
8	107	111	214	2	No go for the wheatens	Unfortunately both my wheaten terriersare skipping meals when I add this to their kibble. I am not sure why

Table after change:

	⊕ CUSTOMERPRODUCTID	A culorousense	A no on come	A p. 177110	Augunian	∯ REVIEW
	CUSTOMERPRODUCTED	CUSTOMERID	§ PRODUCTID	₹ KATING	I HEAULINE	₹ REVIEW
1	100	111	212	5	We love this food!	My dog is happy and healthy with this food, and his mom is happy that it doesnt cost a fortune on Amazon, an
2	101	113	212	5	Great Food!	Fantastic dog food. I wont buy food for my dogs that have all that grain for filler. And I wont buy food tha
3	102	111	215	5	My dogs are wild about this food !!!	My dogs like this better than any other food I have fed them. Its pain protein is duck and duck was recommen
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8	107	111	214	2	No go for the wheatens	My dogs dislike it.

8. FETCH THE DATA FROM CART DETAILS AND DISPLAY ON THE PAGE



Assumption here is that we have the customer ID

SELECT

C.STATUS, CP.NUMBEROFUNITS, P.PRODUCTNAME, P.PRICE_INDOLLARS, P.DESCRIPTION, P.MANUFACTURER, P.IMAGE

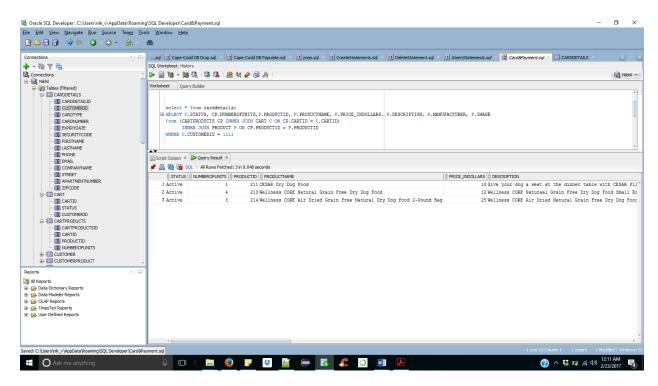
From

(CARTPRODUCTS CP INNER JOIN CART C ON CP.CARTID = C.CARTID)

INNER JOIN PRODUCT P ON CP.PRODUCTID = P.PRODUCTID

WHERE C.CUSTOMERID = 111;

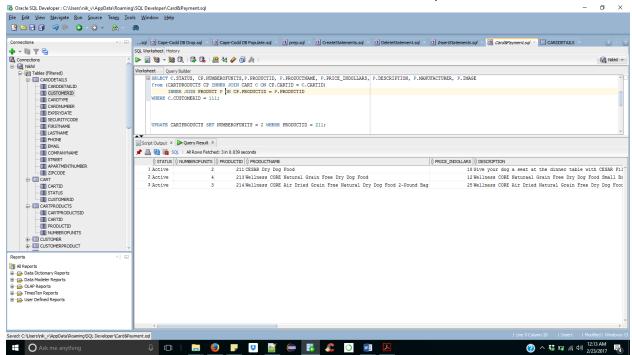
Details of products added to cart are got through joining tables Cart, Cart Products and Products:



9. UPDATE THE CART DETAILS LIKE QUANTITY

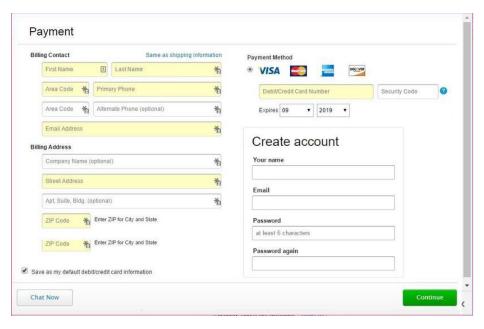
Assumption here is that we have the Product ID when we select a product and try to modify the number of Items.

UPDATE CARTPRODUCTS SET NUMBEROFUNITS = 2 WHERE PRODUCTID = 211;



10. GET THE PAYMENT DETAILS FOR A PARTICULAR CUSTOMER

Assumption here is that we have the customer ID



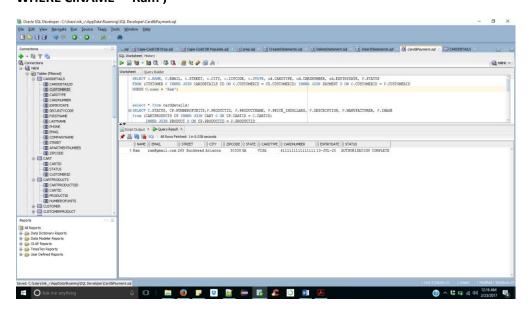
SELECT

c.NAME, C.EMAIL, c.STREET, c.CITY, c.ZIPCODE, c.STATE, cd.CARDTYPE, cd.CARDNUMBER, cd.EXPIRYDATE, P.STATUS

FROM

(CUSTOMER C INNER JOIN CARDDETAILS CD ON C.CUSTOMERID = CD.CUSTOMERID) INNER JOIN PAYMENT P ON C.CUSTOMERID = P.CUSTOMERID

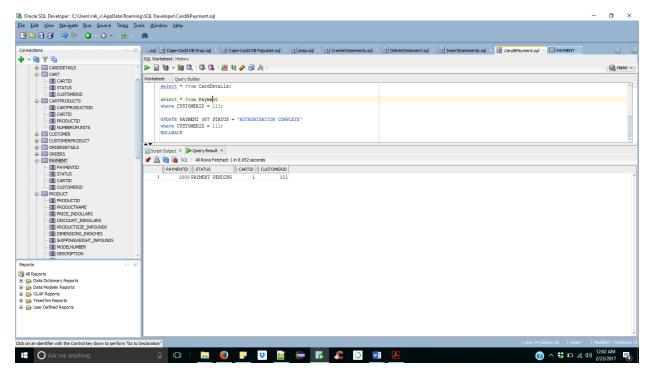
WHERE C.NAME = 'Ram';



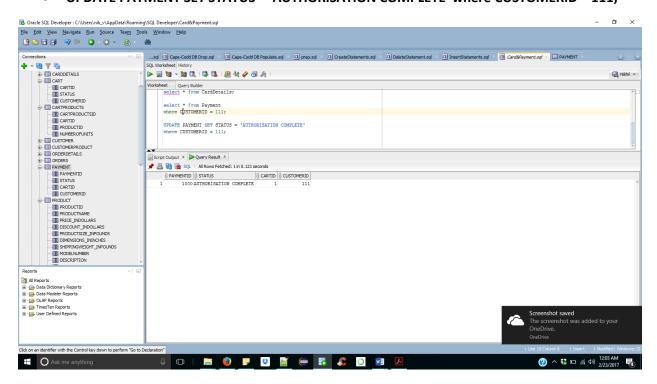
11. Update the payment status after the payment is Successful

Assumption here is that we have the customer ID

SELECT * from Payment Where CUSTOMERID = 111;



UPDATE PAYMENT SET STATUS = 'AUTHORISATION COMPLETE' where CUSTOMERID = 111:



12. Orders Page

Retrieving the data of the customer's order

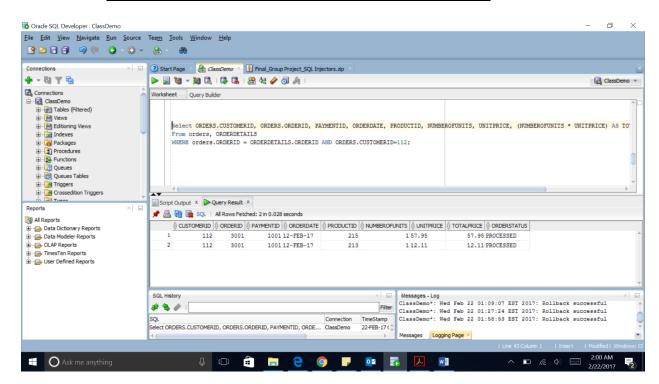
SQL Statement

Select ORDERS.CUSTOMERID, ORDERS.ORDERID, PAYMENTID, ORDERDATE, PRODUCTID, NUMBEROFUNITS, UNITPRICE, (NUMBEROFUNITS * UNITPRICE) AS TOTALPRICE, orders.ORDERSTATUS

From orders, ORDERDETAILS

WHERE orders.ORDERID = ORDERDETAILS.ORDERID AND ORDERS.CUSTOMERID=112;

Table Name	Display Fields
	ORDERS.CUSTOMERID,
	ORDERS.ORDERID,
	PAYMENTID,
	ORDERDATE,
	PRODUCTID,
	NUMBEROFUNITS,
	UNITPRICE,
	NUMBEROFUNITS
	UNITPRICE
	TOTALPRICE,
ORDERS,ORDERDETAILS	orders.ORDERSTATUS



Order Details View or Print invoice Ordered on March 28 Order# 122-8705603-9977859 Shipping Address Payment Method Apply gift card balance Order Summary John Doo **** 9863 Item(s) Subtotal: \$45.53 Enter code 1858 Peachtree Dr Shipping & Handling: \$4.98 Change Atlanta, GA 30302 Free Shipping: -\$4.98 United States \$45.53 Total before tax: Estimated tax to be \$3.18 Change collected: Grand Total: \$48,71 Arriving Fri, Mar 30 - Wed, Mar 31 by 8pm Track package Not yet shipped Blue Buffalo Dry Food for Small Breed Dogs, Chicken and Brown Rice Recipe,. Cancel items by Blue Buffalo \$17.46 Archive Order Condition: New Shipping speed Add gift option FREE Shipping Buy it Again Change Kibbles 'n Bits American Grill Grilled USA Beef Steak Flavor Dry Dog Food,... Shipping preference by Kibbles 'n Bits Group my items into as few \$28.07 shipments as possible Condition: New Add gift option

The fourth screen shows an example of order details:

Figure 4. Order Detail Mock-Up Screen

13. Order Status

Fetch the ORDERSTATUS for any order of a particular customer. If the record is not found, customer can sign up and create account.

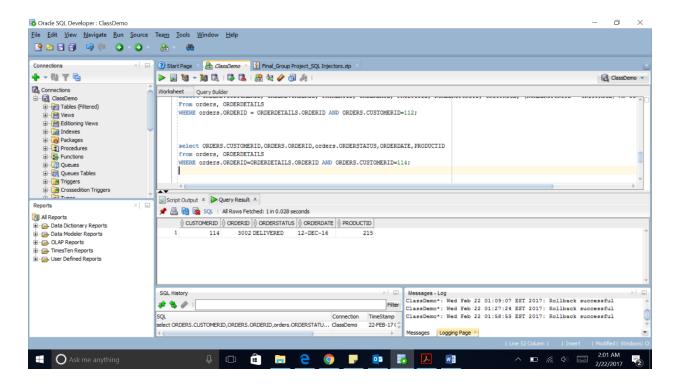
Buy it Again

SQL Statement -

select ORDERS.CUSTOMERID,ORDERS.ORDERID,orders.ORDERSTATUS,ORDERDATE,PRODUCTID from orders, ORDERDETAILS

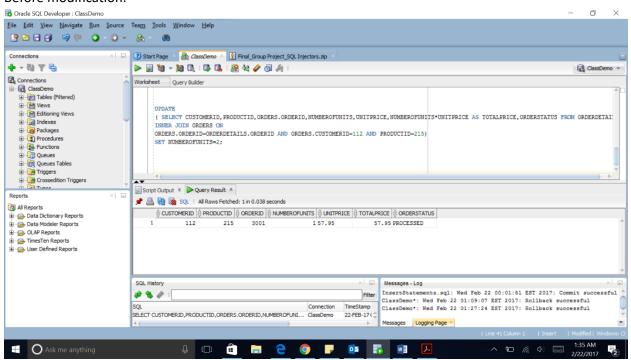
WHERE orders.ORDERID=ORDERDETAILS.ORDERID AND ORDERS.CUSTOMERID=114;

Table Name	Display Fields
	CUSTOMERID
	ORDERID
	ORDERSTATUS
	PRODUCTID
ORDERS,ORDERDETAILS	ORDERDATE



14. Customer can update Order -

Before modification:



Customer can Update his order- change the number of units to 2 instead of 1.

UPDATE

(SELECT

CUSTOMERID, PRODUCTID, ORDERS. ORDERID, NUMBEROFUNITS, UNITPRICE, NUMBEROFUNITS*UNITPRICE AS TOTAL PRICE, ORDERSTATUS FROM ORDERDETAILS

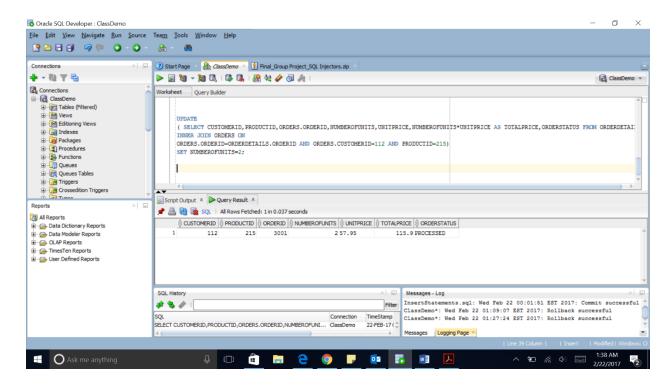
INNER JOIN ORDERS ON

ORDERS.ORDERID=ORDERDETAILS.ORDERID AND ORDERS.CUSTOMERID=112 AND PRODUCTID=215)

SET NUMBEROFUNITS=2;

Commit;

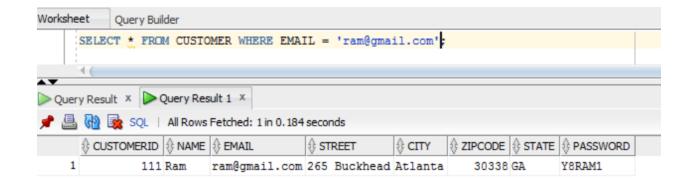
Table Name	Update Fields
	NumberOfUnits
ORDER	
ORDER DETAILS	



15. Customer can view all the Product reviews written by him/her

When the customer views their account, they will be able to view the Product reviews written by them. We will be displaying their product reviews for the products they have purchased and haven't purchased separately.

We will be viewing Product reviews for customer with email id ram@gmail.com

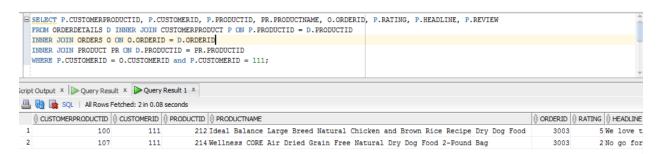


Product reviews by the customer for the products they have purchased.

Tables involved:

Table Name	Display Fields
CUSTOMERPRODUCT	CUSTOMERPRODUCTID, CUSTOMERID,
	PRODUCTID, RATING, HEADLINE, REVIEW
ORDERS	ORDERID
PRODUCT	PRODUCTNAME
ORDERDETAILS	-

SELECT P.CUSTOMERPRODUCTID, P.CUSTOMERID, P.PRODUCTID, PR.PRODUCTNAME,
O.ORDERID, P.RATING, P.HEADLINE, P.REVIEW
FROM ORDERDETAILS D INNER JOIN CUSTOMERPRODUCT P ON P.PRODUCTID = D.PRODUCTID
INNER JOIN ORDERS O ON O.ORDERID = D.ORDERID
INNER JOIN PRODUCT PR ON D.PRODUCTID = PR.PRODUCTID
WHERE P.CUSTOMERID = O.CUSTOMERID and P.CUSTOMERID = 111;



Product reviews by the customer for the products they haven't purchased.

Tables Involved:

Table Name	Display Fields
CUSTOMERPRODUCT	CUSTOMERPRODUCTID, CUSTOMERID,
	PRODUCTID, RATING, HEADLINE, REVIEW
ORDERS	-

PRODUCT	PRODUCTNAME
ORDERDETAILS	-

SELECT P.CUSTOMERPRODUCTID, P.CUSTOMERID, P.PRODUCTID, PR.PRODUCTNAME, P.RATING, P.HEADLINE, P.REVIEW

FROM CUSTOMERPRODUCT P INNER JOIN PRODUCT PR ON PR.PRODUCTID = P.PRODUCTID WHERE P.CUSTOMERID = 111 and

P.CUSTOMERPRODUCTID NOT IN (SELECT P.CUSTOMERPRODUCTID FROM ORDERDETAILS D INNER JOIN CUSTOMERPRODUCT P ON P.PRODUCTID = D.PRODUCTID INNER JOIN ORDERS O ON O.ORDERID = D.ORDERID WHERE P.CUSTOMERID = O.CUSTOMERID);

