Term Project – Deliverable 5

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1.

   There is one change in our current business rule. The updated business rules are mentioned below:
   • One seller can sell multiple products, but one product is associated with only one seller.
   • One product can have multiple inventory records, but each inventory record corresponds to only one product.
   • One consumer can place zero or multiple orders, but one order is associated with only one consumer.
   • One order can contain multiple products, and each product can be present in multiple orders.
   • One order can have one shipment, and one shipment is associated with one order.
   • One Amazon warehouse contains multiple products **(*Changed*)**
   • One shipment originates from one Amazon warehouse, and one Amazon warehouse can have multiple shipments.

2.

The changes that I have made to the business rule are as follows:

1. Added " product_catagory " as an attribute in the Product table
2. Added "product_price" as an attribute in the Product table
3. Added "warehouse_location" as an attribute in the warehouse table
4. Added "w_qty" as an attribute to the Warehouse table
5. Added "Status" as an attribute to the Warehouse table
6. Added "Customer_first_name" as an attribute to the customer table
7. Added "Customer_last_name" as an attribute to the customer table
8. Added "Customer_email" as an attribute to the customer table

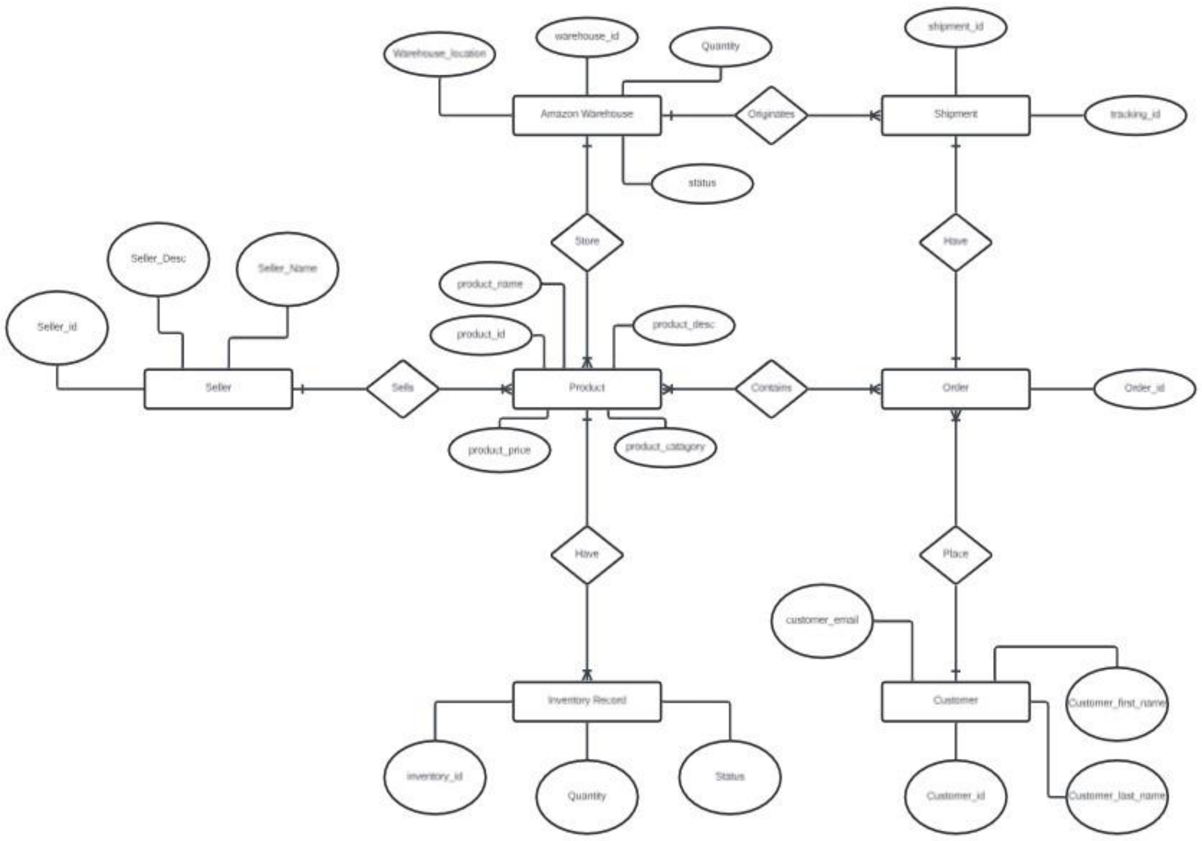


Fig: Conceptual ER-Diagram of our new business rule

3. Make any enhancements and corrections to your logical ERD and provide the updated ERD below.

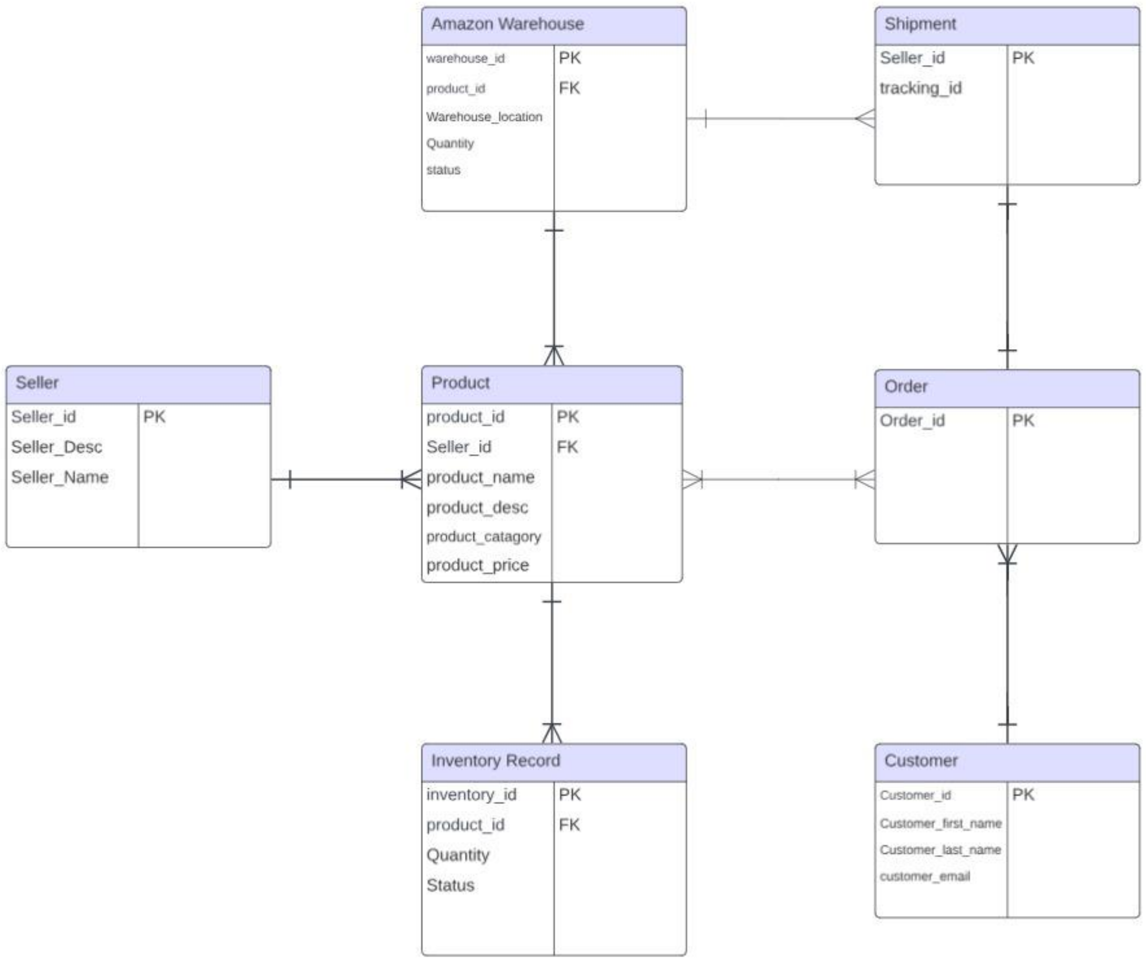
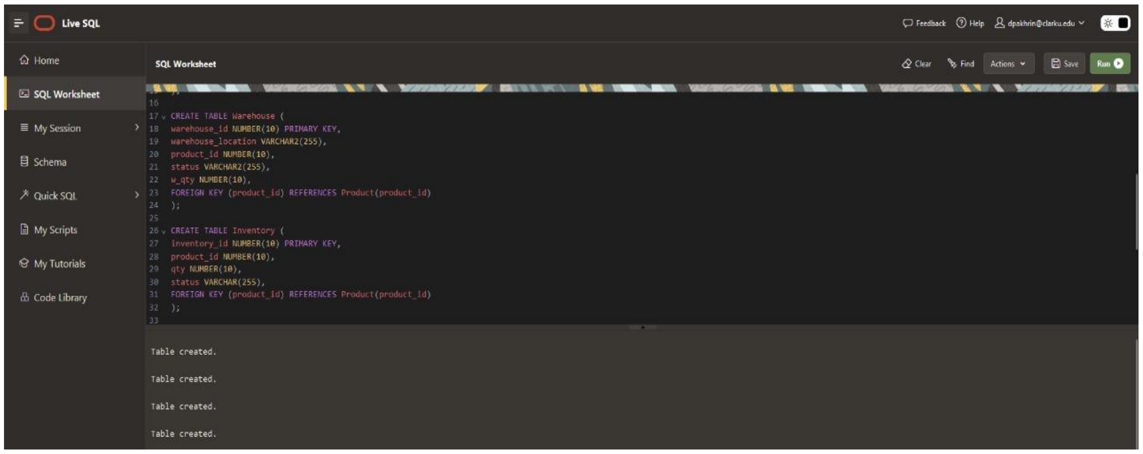


Fig: Conceptual ER-Diagram of New Business Rule

4.

Aspect 2

a. Creation of tables and constraints



```
CREATE TABLE Warehouse (
warehouse_id NUMBER(10) PRIMARY KEY,
warehouse_location VARCHAR2(255),
product_id NUMBER(10),
status VARCHAR2(255),
w_qty NUMBER(10),
FOREIGN KEY (product_id) REFERENCES Product(product_id)
);

CREATE TABLE Inventory (
inventory_id NUMBER(10) PRIMARY KEY,
product_id NUMBER(10),
qty NUMBER(10),
status VARCHAR(255),
FOREIGN KEY (product_id) REFERENCES Product(product_id)
);
```

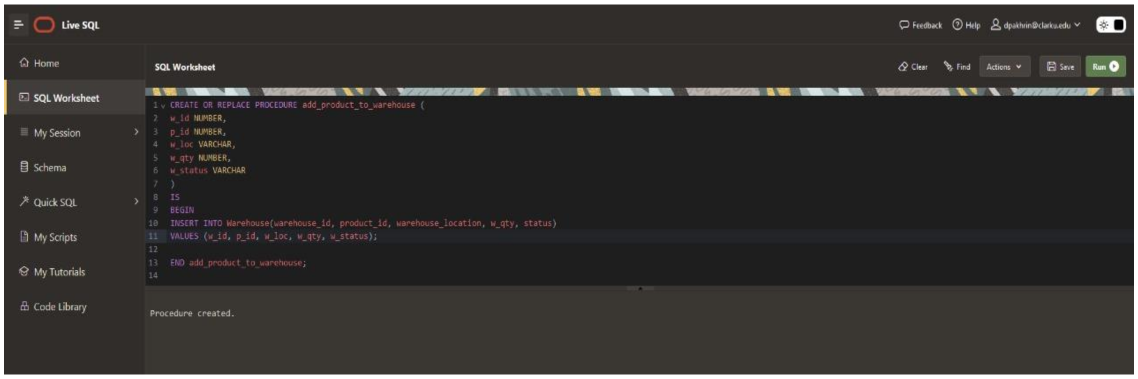
```
Table created.

Table created.

Table created.

Table created.
```

b. Creation of reusable stored procedure

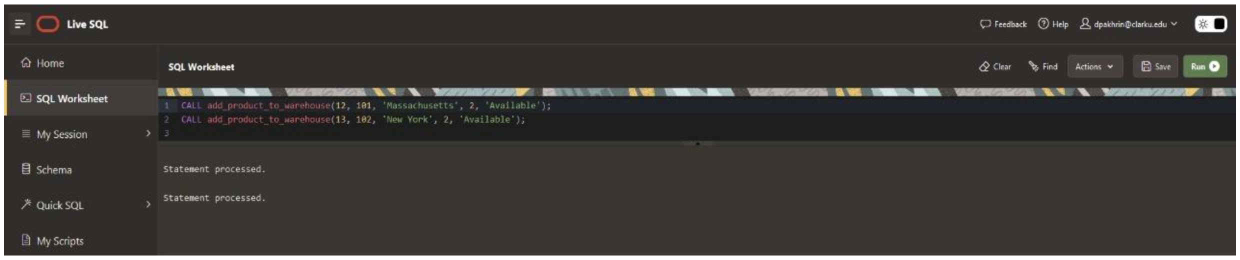


```
CREATE OR REPLACE PROCEDURE add_product_to_warehouse (
w_id NUMBER,
p_id NUMBER,
w_loc VARCHAR,
w_qty NUMBER,
w_status VARCHAR
)
IS
BEGIN
INSERT INTO Warehouse(warehouse_id, product_id, warehouse_location, w_qty, status)
VALUES (w_id, p_id, w_loc, w_qty, w_status);

END add_product_to_warehouse;
```

```
Procedure created.
```

c. Use of the stored procedure

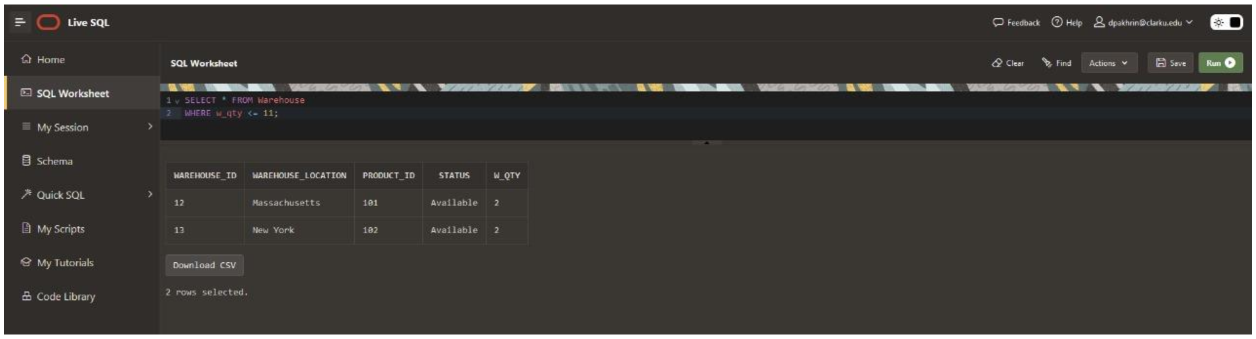


```
CALL add_product_to_warehouse(12, 101, 'Massachusetts', 2, 'Available');
CALL add_product_to_warehouse(13, 102, 'New York', 2, 'Available');
```

```
Statement processed.

Statement processed.
```

d. SQL query



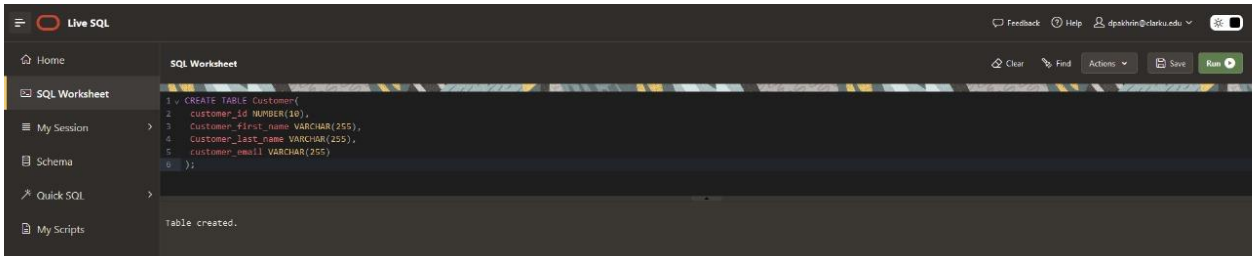
```
SELECT * FROM Warehouse
WHERE w_qty <= 11;
```

WAREHOUSE_ID	WAREHOUSE_LOCATION	PRODUCT_ID	STATUS	W_QTY
12	Massachusetts	101	Available	2
13	New York	102	Available	2

```
2 rows selected.
```

Aspect 3

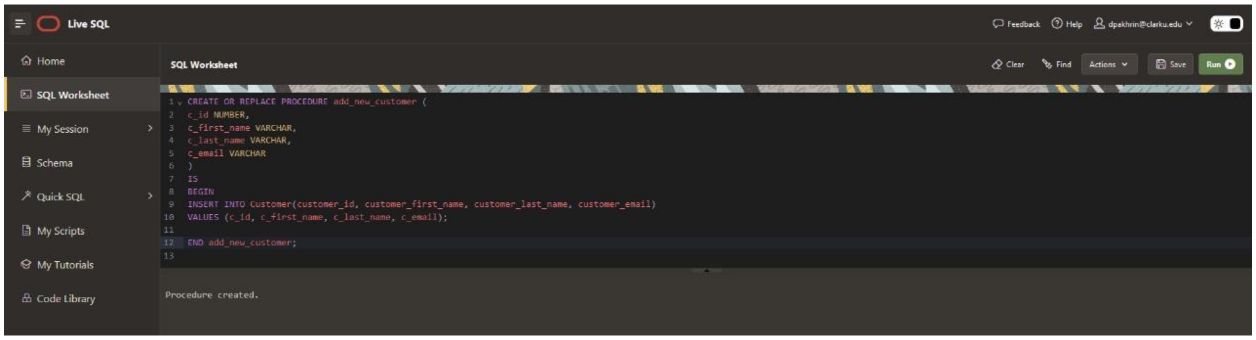
a. Creation of tables and constraints



```sql
CREATE TABLE Customer(
 customer_id NUMBER(10),
 Customer_first_name VARCHAR(255),
 Customer_last_name VARCHAR(255),
 customer_email VARCHAR(255)
);
```

```
Table created.
```

b. Creation of reusable stored procedure



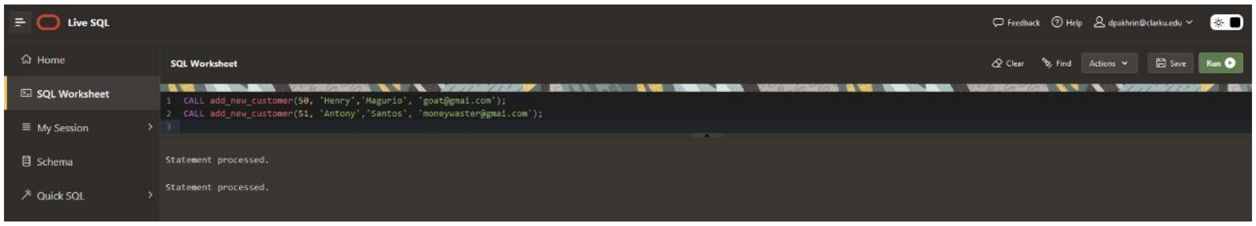
```sql
CREATE OR REPLACE PROCEDURE add_new_customer (
c_id NUMBER,
c_first_name VARCHAR,
c_last_name VARCHAR,
c_email VARCHAR
)
IS
BEGIN
INSERT INTO Customer(customer_id, customer_first_name, customer_last_name, customer_email)
VALUES (c_id, c_first_name, c_last_name, c_email);

END add_new_customer;

```

```
Procedure created.
```

c. Use of the stored procedure

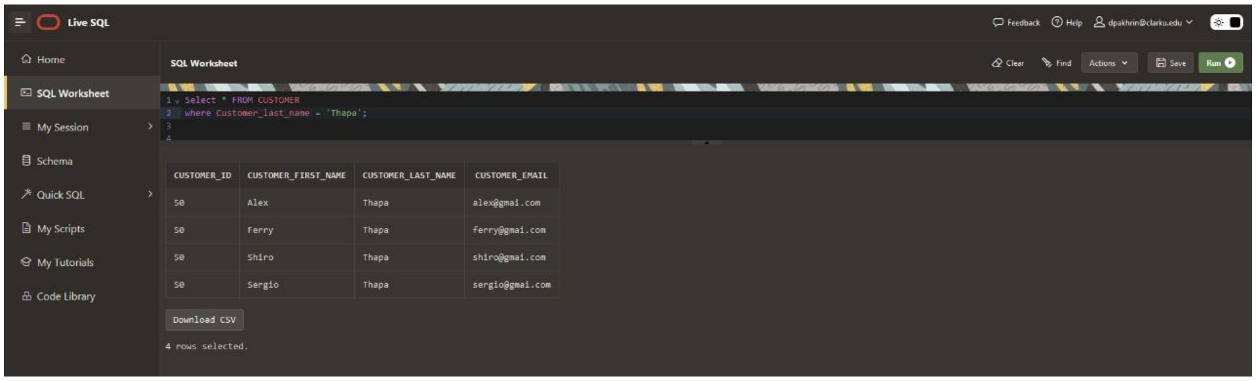


```sql
CALL add_new_customer(50, 'Henry','Magurio', 'goat@gmai.com');
CALL add_new_customer(51, 'Antony','Santos', 'moneywaster@gmai.com');
```

```
Statement processed.

Statement processed.
```

d. SQL query



```
Select * FROM CUSTOMER
where Customer_last_name = 'Thapa';
```

CUSTOMER_ID	CUSTOMER_FIRST_NAME	CUSTOMER_LAST_NAME	CUSTOMER_EMAIL
50	Alex	Thapa	alex@gmai.com
50	Ferry	Thapa	ferry@gmai.com
50	Shiro	Thapa	shiro@gmai.com
50	Sergio	Thapa	sergio@gmai.com

```
4 rows selected.
```