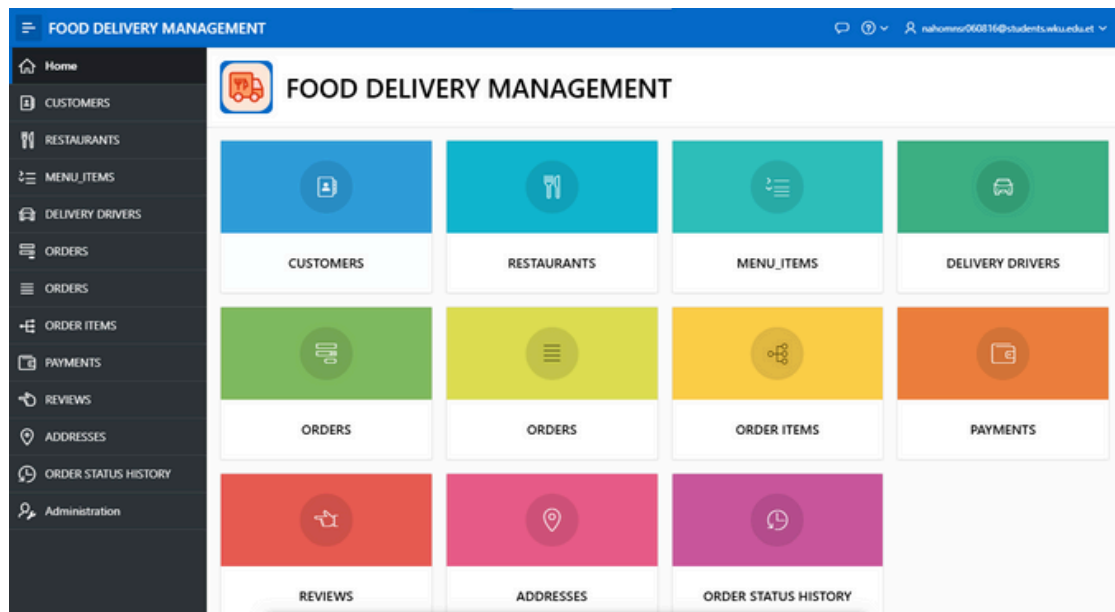
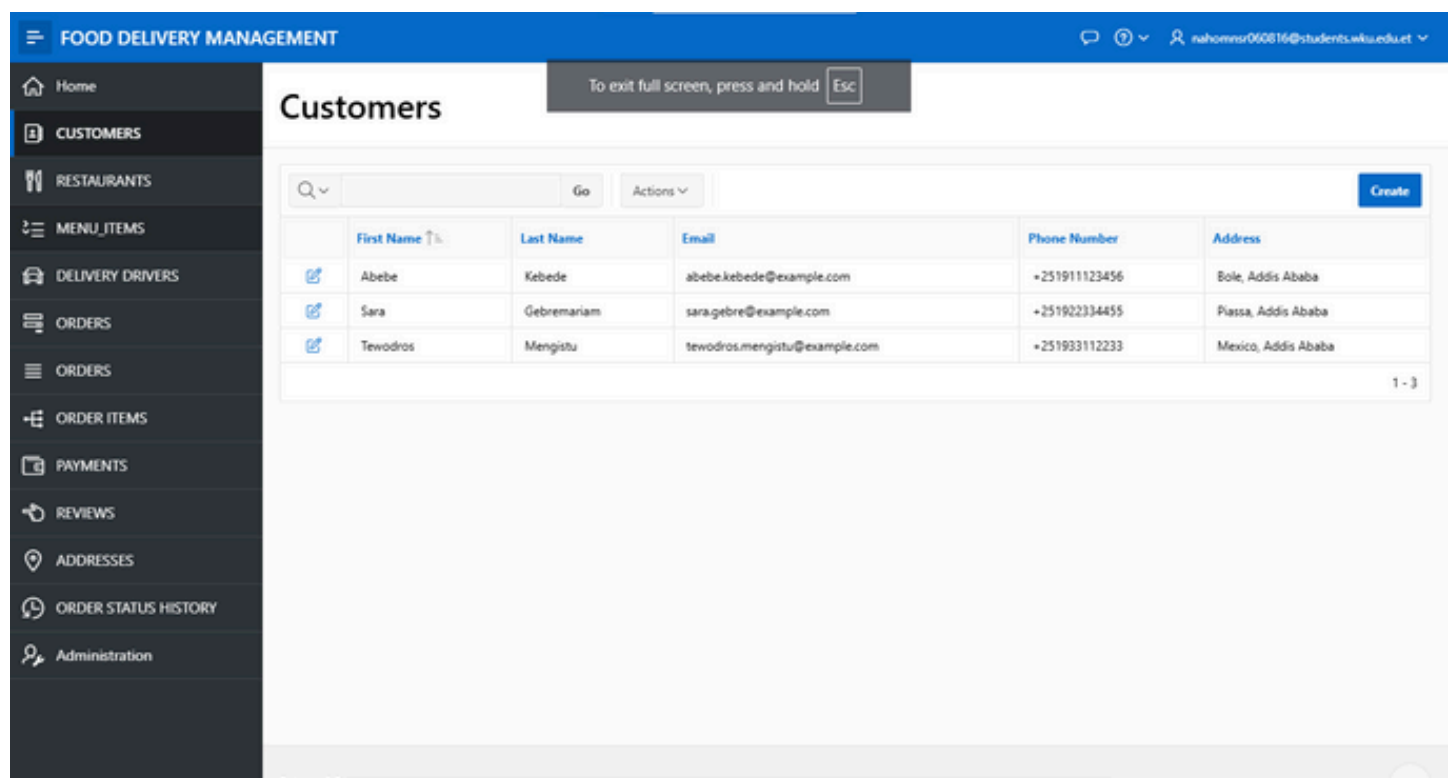


Here is the **Oracle APEX-compatible SQL query** and User Interface for creating the **Food Delivery management System** schema:

## HOME PAGE



## -- Customers Page



CREATE TABLE Customers (

customer\_id NUMBER GENERATED ALWAYS AS IDENTITY PRIMARY KEY,

first\_name VARCHAR2(100) NOT NULL,

```

last_name VARCHAR2(100) NOT NULL,

email VARCHAR2(100) UNIQUE NOT NULL,

phone_number VARCHAR2(20) NOT NULL,

address VARCHAR2(255)

);

```

## -- Restaurants Page

The screenshot displays the 'Restaurants' management page. The table lists the following data:

	Name ↑	Phone Number	Address	Email
	Kategna	+251118540123	Gerji, Addis Ababa	info@kategna.et
	Romina Restaurant	+251112334455	Sarbet, Addis Ababa	romina@romina.et
	Yod Abyssinia	+251116612345	Bole, Addis Ababa	contact@yodabyssinia.et

```

CREATE TABLE Restaurants (

```

```

    restaurant_id NUMBER GENERATED ALWAYS AS IDENTITY PRIMARY KEY,

    name VARCHAR2(200) NOT NULL,

    phone_number VARCHAR2(20) NOT NULL,

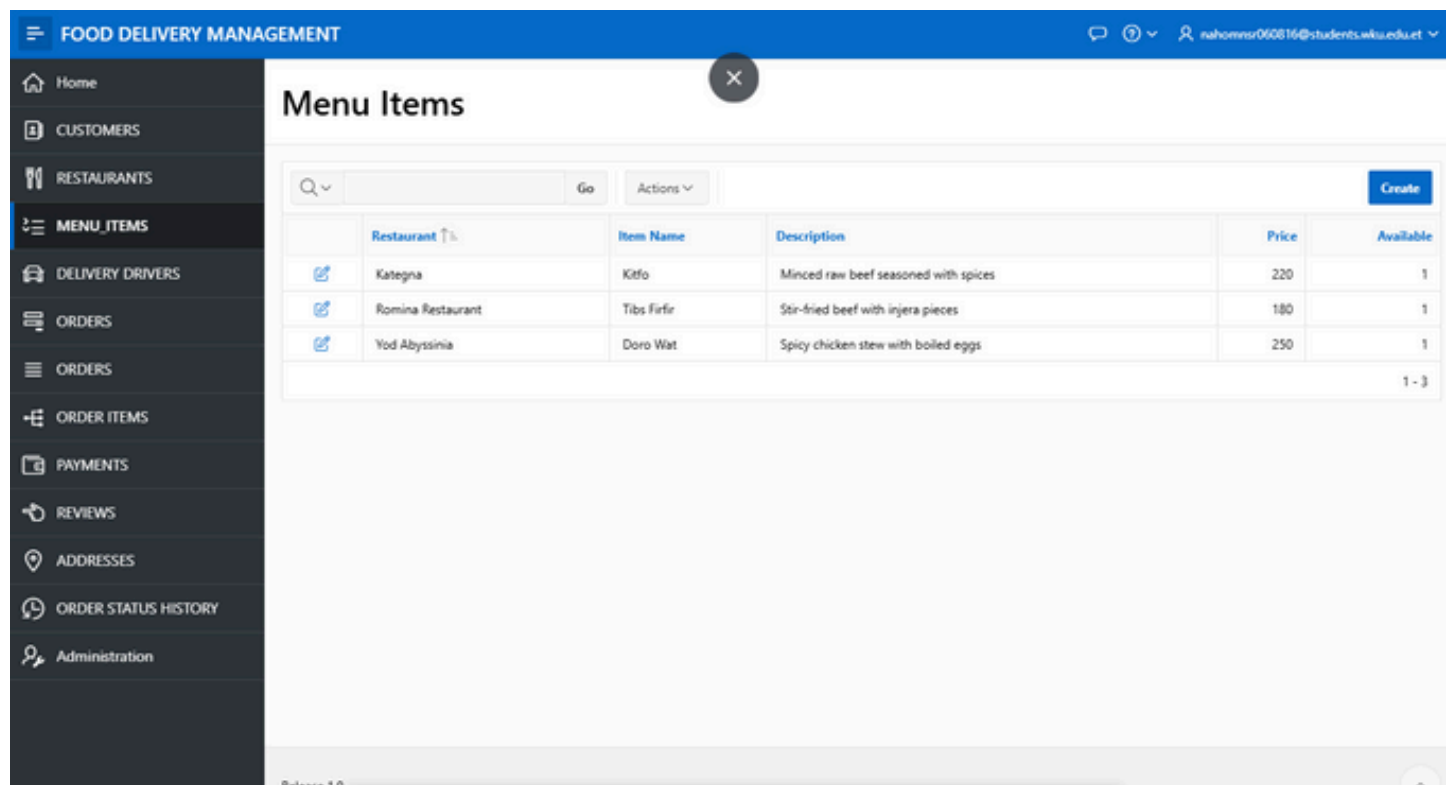
    address VARCHAR2(255),

    email VARCHAR2(100) UNIQUE

);

```

## -- Menu\_Items Page



The screenshot displays the 'Menu Items' page within a 'FOOD DELIVERY MANAGEMENT' application. The page features a sidebar with navigation options: Home, CUSTOMERS, RESTAURANTS, MENU\_ITEMS (selected), DELIVERY DRIVERS, ORDERS, ORDER ITEMS, PAYMENTS, REVIEWS, ADDRESSES, ORDER STATUS HISTORY, and Administration. The main content area shows a table with the following data:

Restaurant	Item Name	Description	Price	Available
Kategna	Kitfo	Minced raw beef seasoned with spices	220	1
Romina Restaurant	Tibs Firfir	Stir-fried beef with injera pieces	180	1
Yod Abyssinia	Doro Wat	Spicy chicken stew with boiled eggs	250	1

The table is titled 'Menu Items' and includes a search bar, a 'Go' button, and an 'Actions' dropdown menu. A 'Create' button is located in the top right corner. The page footer indicates 'Release 1.0'.

CREATE TABLE Menu\_Items (

item\_id NUMBER GENERATED ALWAYS AS IDENTITY PRIMARY KEY,

restaurant\_id NUMBER NOT NULL,

item\_name VARCHAR2(200) NOT NULL,

description CLOB,

price NUMBER(10, 2) NOT NULL CHECK (price >= 0),

available NUMBER(1) DEFAULT 1 CHECK (available IN (0, 1)),

FOREIGN KEY (restaurant\_id) REFERENCES Restaurants(restaurant\_id)

);

## -- DeliveryDrivers Page

FOOD DELIVERY MANAGEMENT																													
<div> <div> <div>Home</div> <div>CUSTOMERS</div> <div>RESTAURANTS</div> <div>MENU_ITEMS</div> <div><b>DELIVERY DRIVERS</b></div> <div>ORDERS</div> <div>ORDERS</div> <div>ORDER ITEMS</div> <div>PAYMENTS</div> <div>REVIEWS</div> <div>ADDRESSES</div> <div>ORDER STATUS HISTORY</div> <div>Administration</div> </div> <div> <div>Deliverydrivers</div> <div>To exit full screen, press and hold <span>Esc</span></div> </div> </div>																													
<div> <div> <div>Q</div> <div></div> <div>Go</div> <div>Actions</div> <div>Create</div> </div> <table> <tr> <th></th> <th>First Name ↑</th> <th>Last Name</th> <th>Email</th> <th>Phone Number</th> <th>Status</th> </tr> <tr> <td></td> <td>Hana</td> <td>Bekele</td> <td>hana.driver@example.com</td> <td>+251944556677</td> <td>On Delivery</td> </tr> <tr> <td></td> <td>Mulugeta</td> <td>Tesfaye</td> <td>mulugeta.driver@example.com</td> <td>+251933445566</td> <td>Available</td> </tr> <tr> <td></td> <td>Yonas</td> <td>Demissie</td> <td>yonas.driver@example.com</td> <td>+251955667788</td> <td>Available</td> </tr> </table> <div>1 - 3</div> </div>							First Name ↑	Last Name	Email	Phone Number	Status		Hana	Bekele	hana.driver@example.com	+251944556677	On Delivery		Mulugeta	Tesfaye	mulugeta.driver@example.com	+251933445566	Available		Yonas	Demissie	yonas.driver@example.com	+251955667788	Available
	First Name ↑	Last Name	Email	Phone Number	Status																								
	Hana	Bekele	hana.driver@example.com	+251944556677	On Delivery																								
	Mulugeta	Tesfaye	mulugeta.driver@example.com	+251933445566	Available																								
	Yonas	Demissie	yonas.driver@example.com	+251955667788	Available																								

```
CREATE TABLE DeliveryDrivers (
  driver_id NUMBER GENERATED ALWAYS AS IDENTITY PRIMARY KEY,
  first_name VARCHAR2(100) NOT NULL,
  last_name VARCHAR2(100) NOT NULL,
  email VARCHAR2(100) UNIQUE NOT NULL,
  phone_number VARCHAR2(20),
  status VARCHAR2(50) DEFAULT 'Available'
);
```

-- OrdersPage

FOOD DELIVERY MANAGEMENT									
<div> <div> <div>Home</div> <div>CUSTOMERS</div> <div>RESTAURANTS</div> <div>MENU_ITEMS</div> <div>DELIVERY DRIVERS</div> <div>ORDERS</div> <div>ORDERS</div> <div>ORDER ITEMS</div> <div>PAYMENTS</div> <div>REVIEWS</div> <div>ADDRESSES</div> <div>ORDER STATUS HISTORY</div> <div>Administration</div> </div> <div> <div>Orders</div> <div> <div> <div>Search</div> <div>Go</div> <div>Actions</div> </div> <div>Create</div> </div> </div> </div>									
	Customer	Restaurant	Order Date	Status	Total Amount	Payment Method	Driver		
	Abebe	Kategna	5/8/2025	Delivered	250	Cash	Hana		
	Sara	Romina Restaurant	5/10/2025	Preparing	360	Card	Mulugeta		
	Tewodros	Yod Abyssinia	5/11/2025	Pending	220	Mobile Money	Yonas		
								1 - 3	

CREATE TABLE Orders (

order\_id NUMBER GENERATED ALWAYS AS IDENTITY PRIMARY KEY,

customer\_id NUMBER NOT NULL,

restaurant\_id NUMBER NOT NULL,

order\_date DATE DEFAULT SYSDATE,

status VARCHAR2(50) DEFAULT 'Pending',

total\_amount NUMBER(10, 2) NOT NULL CHECK (total\_amount >= 0),

payment\_method VARCHAR2(50),

driver\_id NUMBER,

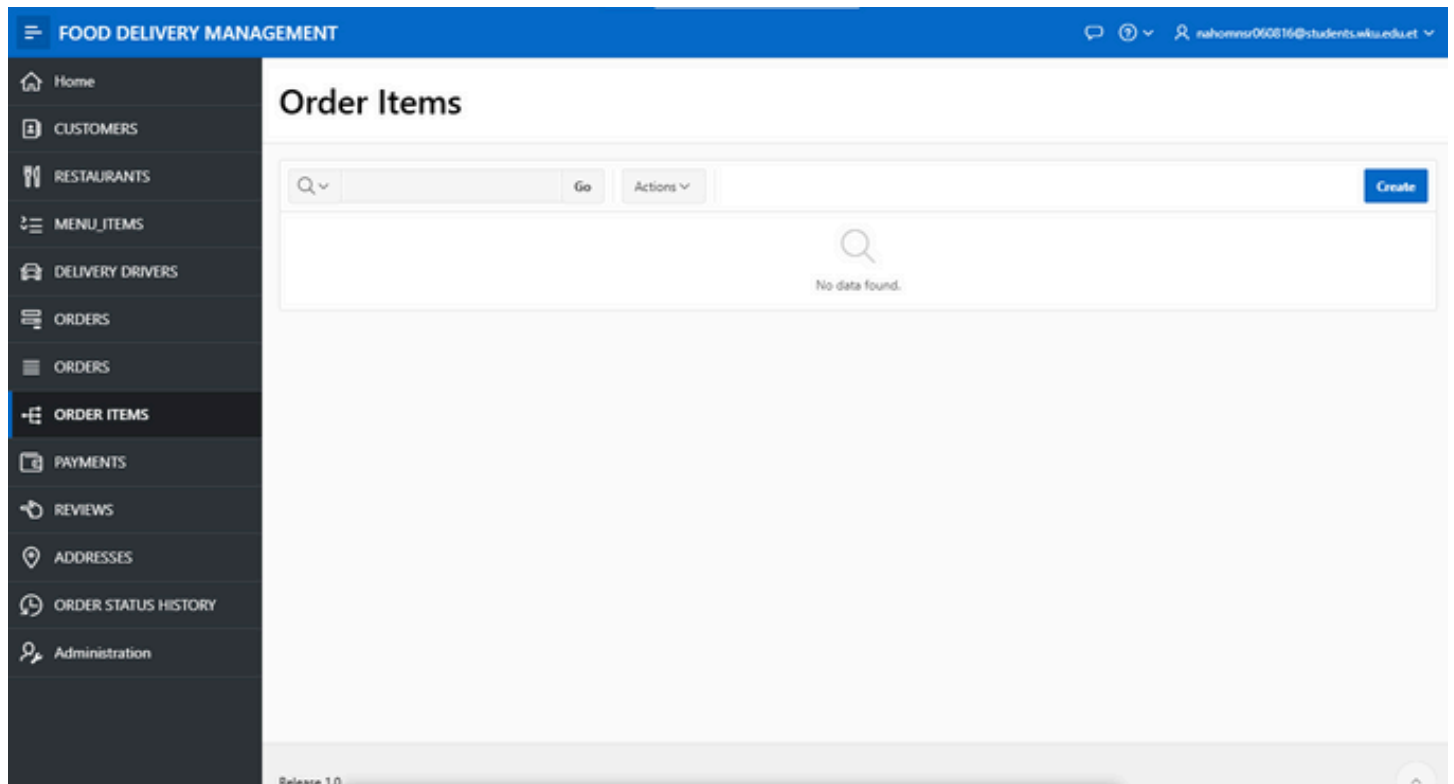
FOREIGN KEY (customer\_id) REFERENCES Customers(customer\_id),

FOREIGN KEY (restaurant\_id) REFERENCES Restaurants(restaurant\_id),

FOREIGN KEY (driver\_id) REFERENCES DeliveryDrivers(driver\_id)

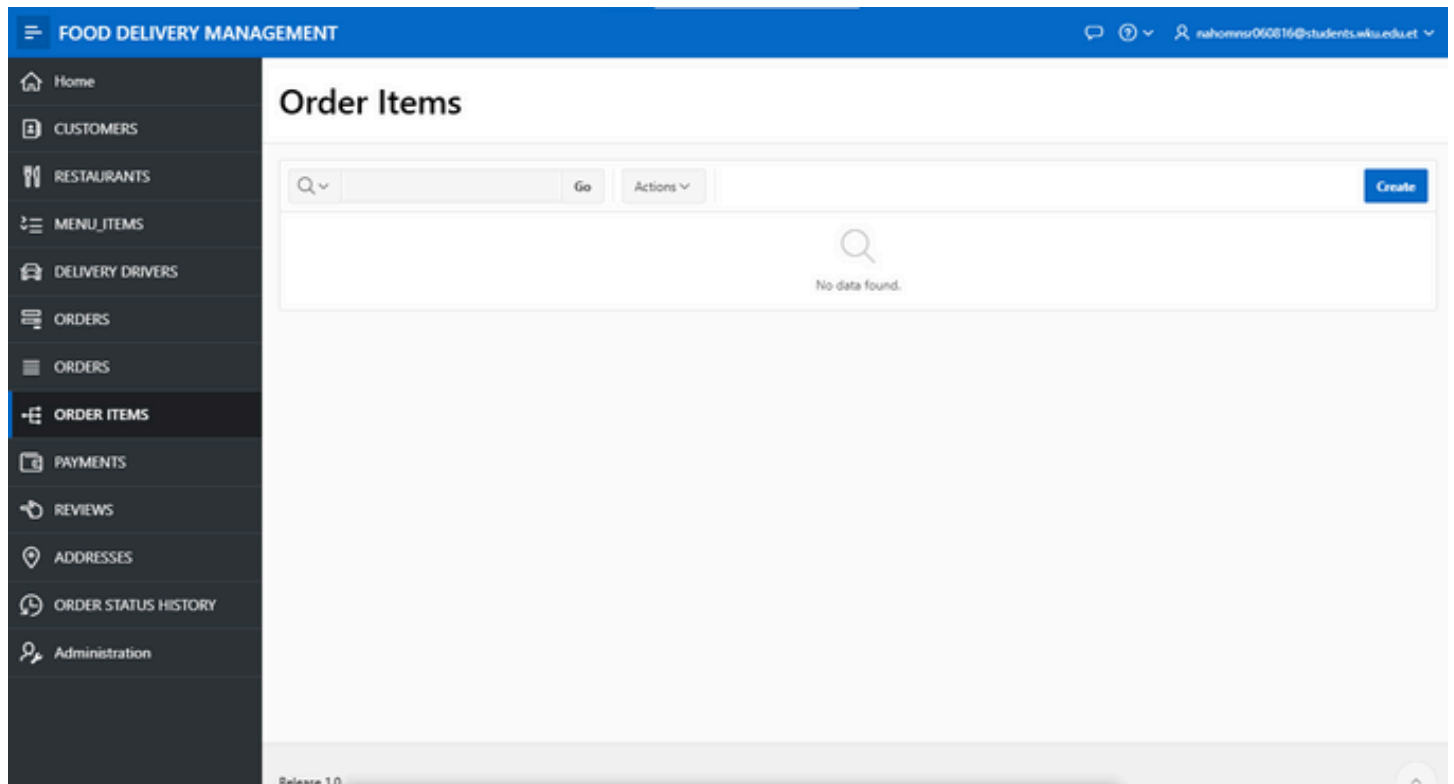
);

-- Order\_Items Page



```
CREATE TABLE Order_Items (  
    order_item_id NUMBER GENERATED ALWAYS AS IDENTITY PRIMARY KEY,  
    order_id NUMBER NOT NULL,  
    item_id NUMBER NOT NULL,  
    quantity NUMBER NOT NULL CHECK (quantity > 0),  
    item_price NUMBER(10, 2) NOT NULL CHECK (item_price >= 0),  
    FOREIGN KEY (order_id) REFERENCES Orders(order_id),  
    FOREIGN KEY (item_id) REFERENCES Menu_Items(item_id)  
);
```

-- Payments Page



CREATE TABLE Payments (

payment\_id NUMBER GENERATED ALWAYS AS IDENTITY PRIMARY KEY,

order\_id NUMBER NOT NULL,

payment\_date DATE DEFAULT SYSDATE,

amount NUMBER(10, 2) NOT NULL CHECK (amount >= 0),

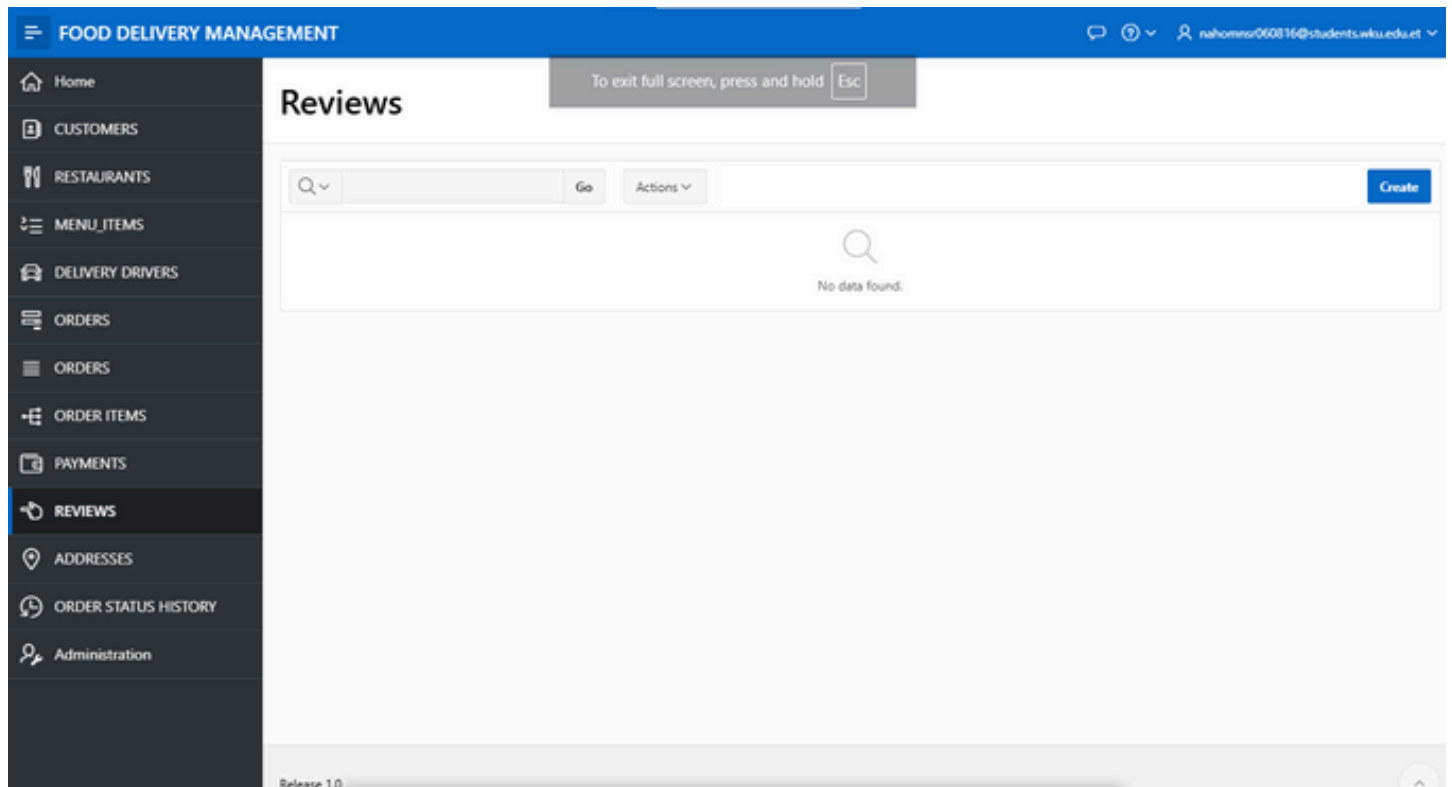
payment\_method VARCHAR2(50),

payment\_status VARCHAR2(50) DEFAULT 'Pending',

FOREIGN KEY (order\_id) REFERENCES Orders(order\_id)

);

-- Reviews Page



CREATE TABLE Reviews (

review\_id NUMBER GENERATED ALWAYS AS IDENTITY PRIMARY KEY,

customer\_id NUMBER NOT NULL,

restaurant\_id NUMBER NOT NULL,

menu\_item\_id NUMBER NOT NULL,

rating NUMBER CHECK (rating BETWEEN 1 AND 5),

comment CLOB,

FOREIGN KEY (customer\_id) REFERENCES Customers(customer\_id),

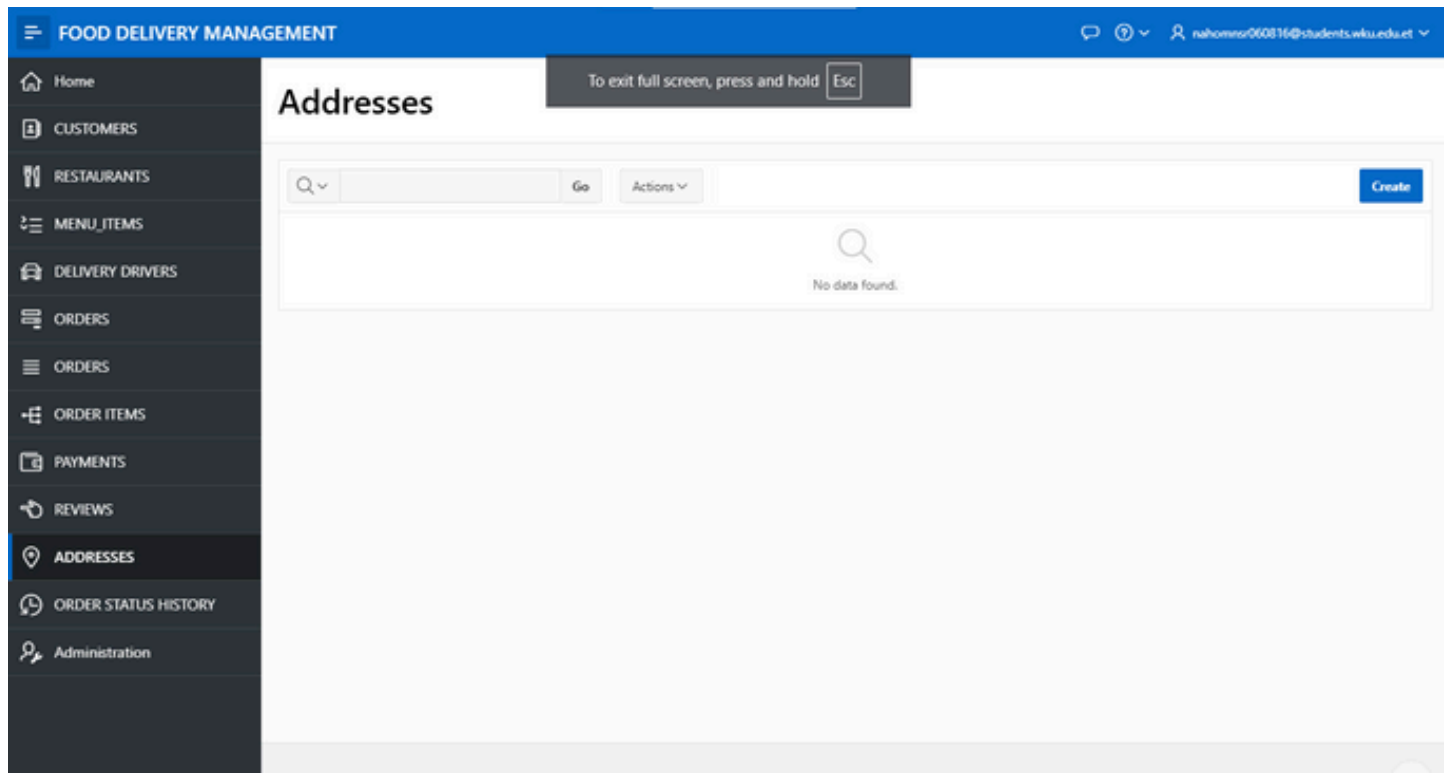
FOREIGN KEY (restaurant\_id) REFERENCES Restaurants(restaurant\_id),

FOREIGN KEY (menu\_item\_id) REFERENCES Menu\_Items(item\_id)

);

-- Addresses Page





CREATE TABLE Addresses (

address\_id NUMBER GENERATED ALWAYS AS IDENTITY PRIMARY KEY,

customer\_id NUMBER NOT NULL,

address\_line1 VARCHAR2(255),

address\_line2 VARCHAR2(255),

city VARCHAR2(100),

state VARCHAR2(100),

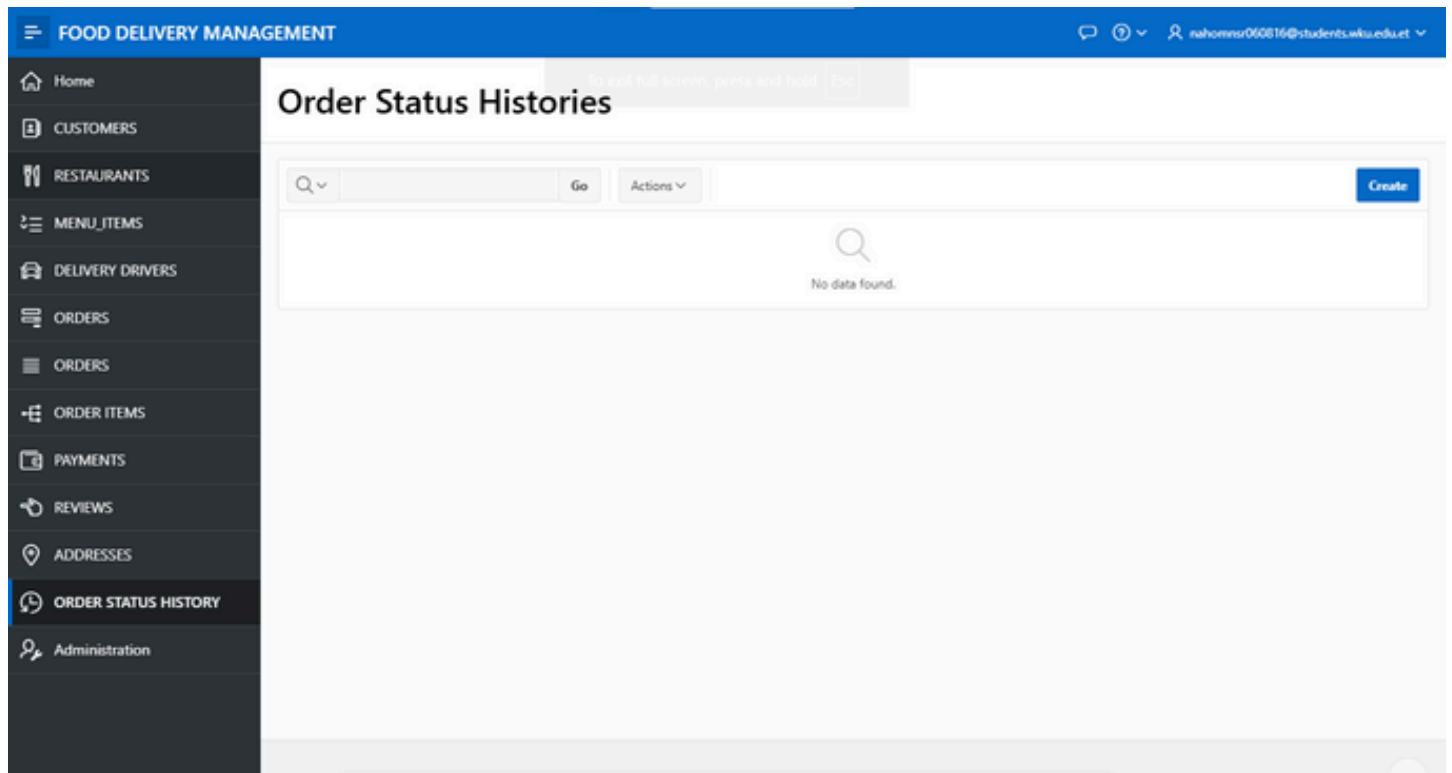
zip\_code VARCHAR2(20),

country VARCHAR2(100),

FOREIGN KEY (customer\_id) REFERENCES Customers(customer\_id)

);

-- Order\_Status\_History Page



```
CREATE TABLE Order_Status_History (  
    status_history_id NUMBER GENERATED ALWAYS AS IDENTITY PRIMARY KEY,  
    order_id NUMBER NOT NULL,  
    status VARCHAR2(50),  
    status_date DATE DEFAULT SYSDATE,  
    FOREIGN KEY (order_id) REFERENCES Orders(order_id)  
);
```

-- Indexes

```
CREATE INDEX idx_orders_customer_id ON Orders(customer_id);
```

```
CREATE INDEX idx_menu_items_restaurant_id ON Menu_Items(restaurant_id);
```

-- View

```
CREATE OR REPLACE VIEW vw_OrderDetails AS
```

```
SELECT
```

```

o.order_id,

c.first_name || ' ' || c.last_name AS customer_name,

r.name AS restaurant_name,

o.order_date,

o.total_amount,

o.status

FROM Orders o

JOIN Customers c ON o.customer_id = c.customer_id

JOIN Restaurants r ON o.restaurant_id = r.restaurant_id;

-- Trigger

CREATE OR REPLACE TRIGGER trg_InsertOrderStatus

AFTER INSERT ON Orders

FOR EACH ROW

BEGIN

    INSERT INTO Order_Status_History (order_id, status, status_date)

    VALUES (:NEW.order_id, :NEW.status, SYSDATE);

END;

/

-- Stored Procedure

CREATE OR REPLACE PROCEDURE PlaceOrder (

    p_CustomerID IN NUMBER,

    p_RestaurantID IN NUMBER,

    p_TotalAmount IN NUMBER,

    p_PaymentMethod IN VARCHAR2,

    p_DriverID IN NUMBER,

```

```
p_NewOrderID OUT NUMBER
)
AS
BEGIN
    INSERT INTO Orders (
        customer_id, restaurant_id, order_date, status,
        total_amount, payment_method, driver_id
    )
    VALUES (
        p_CustomerID, p_RestaurantID, SYSDATE, 'Pending',
        p_TotalAmount, p_PaymentMethod, p_DriverID
    )
    RETURNING order_id INTO p_NewOrderID;
END;
/
```

Web link  <https://apex.oracle.com/pls/apex/r/nahoo/food-delivery-management261909/home?session=102842674308907>

Username [nahomnsr060816@students.wku.edu.et](mailto:nahomnsr060816@students.wku.edu.et)

Password  Naho121212@