

2232-INSY-3304-002

Berenshia Apunda

Abigail Bradley

Travis Luong

Ayanna Michael

Ana Perales

Niharika Venkatesha

Contact Person:

Abigail Bradley

alb3615@mavs.uta.edu

Part I:

Entities in the UFO application:

1. Customer (customer_id, customer_fname, customer_lname billing_address, phone)
2. Furniture (item_code, item_name, price, quantity_in_stock) Order_form (order#, order_date, customer_id(fk), delivery_address, total_price, emp_id(fk))
3. Shipment (shipment#, shipment_date, truck_number(fk), order_number)
4. Truck (truck#, license_plate#, license_exp_date(unsure), inspection_exp_date, emp_id(fk))
5. Employee (emp_id, ssn, employee_fname, employee_lname, address, phone, salary, department_id(fk))
6. Driver (emp_id(fk), driver_license#, license_exp_date)
7. Sales Rep (emp_id(fk), commission_rate)
8. Department (department_id, department_name)

Business rules:

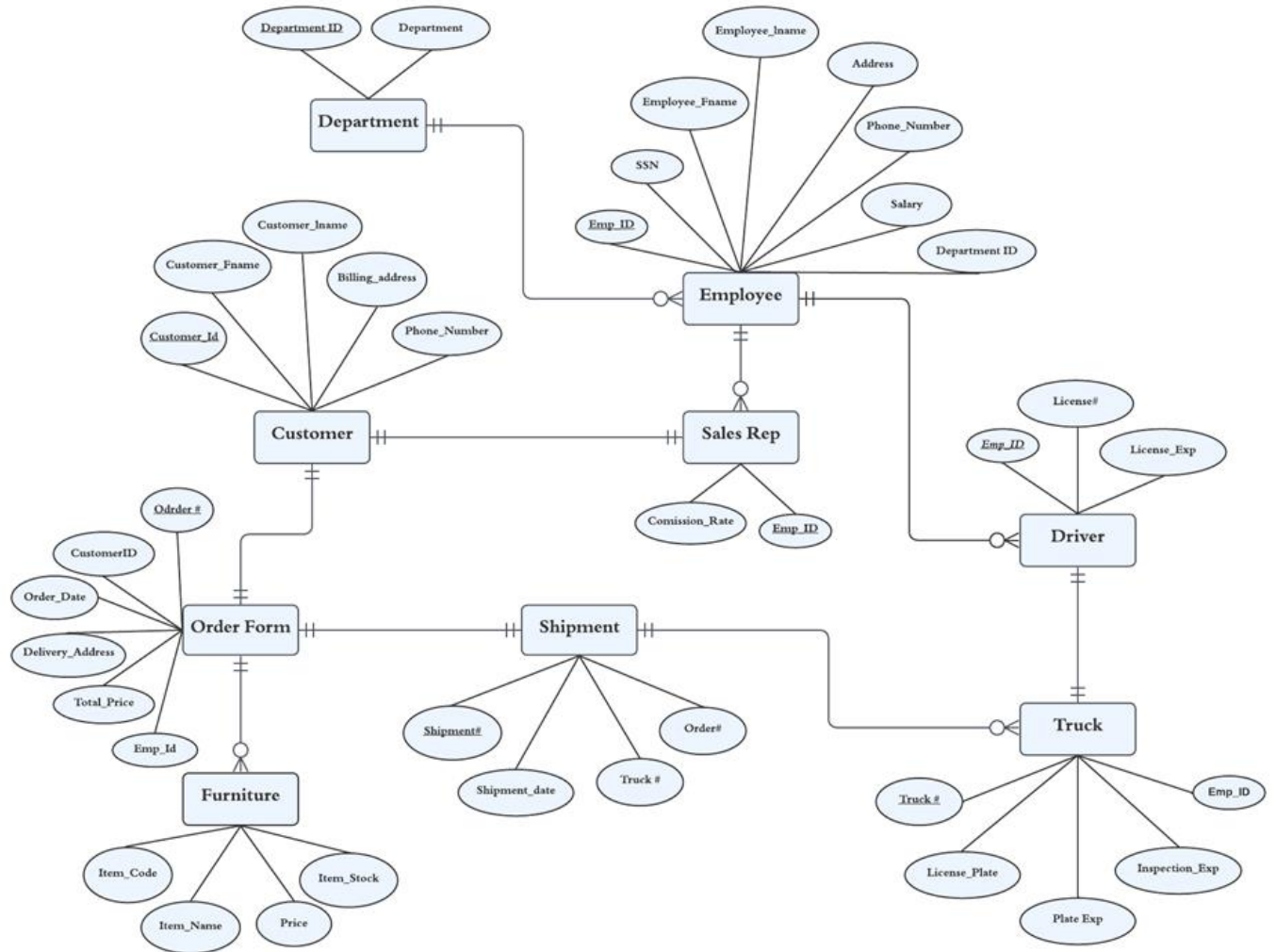
9. Each Customer places one or more Order(s). Each Order is placed by one Customer.
10. Each Order_form includes one or more Furniture(s). Each Furniture is included in one or more Order_form(s).
11. Each Order_form is used by one Sales Rep. Each Sales Rep uses one or more Order_form(s).
12. Each Order_form consists of one or more Shipment(s). Each Shipment belongs to one Order_form.
13. Each Shipment is delivered by one or more Truck(s). Each Truck delivers one or more Shipment(s).
14. Each Truck is assigned to one. Each Driver is assigned to one Truck.
15. Each Employee is associated with one Department. Each Department has one or more Employees.
16. Each Sales Rep is associated with one Department. Each Department has one or more Sales Reps.
17. Each Driver is associated with one Department. Each Department has one or more Drivers.

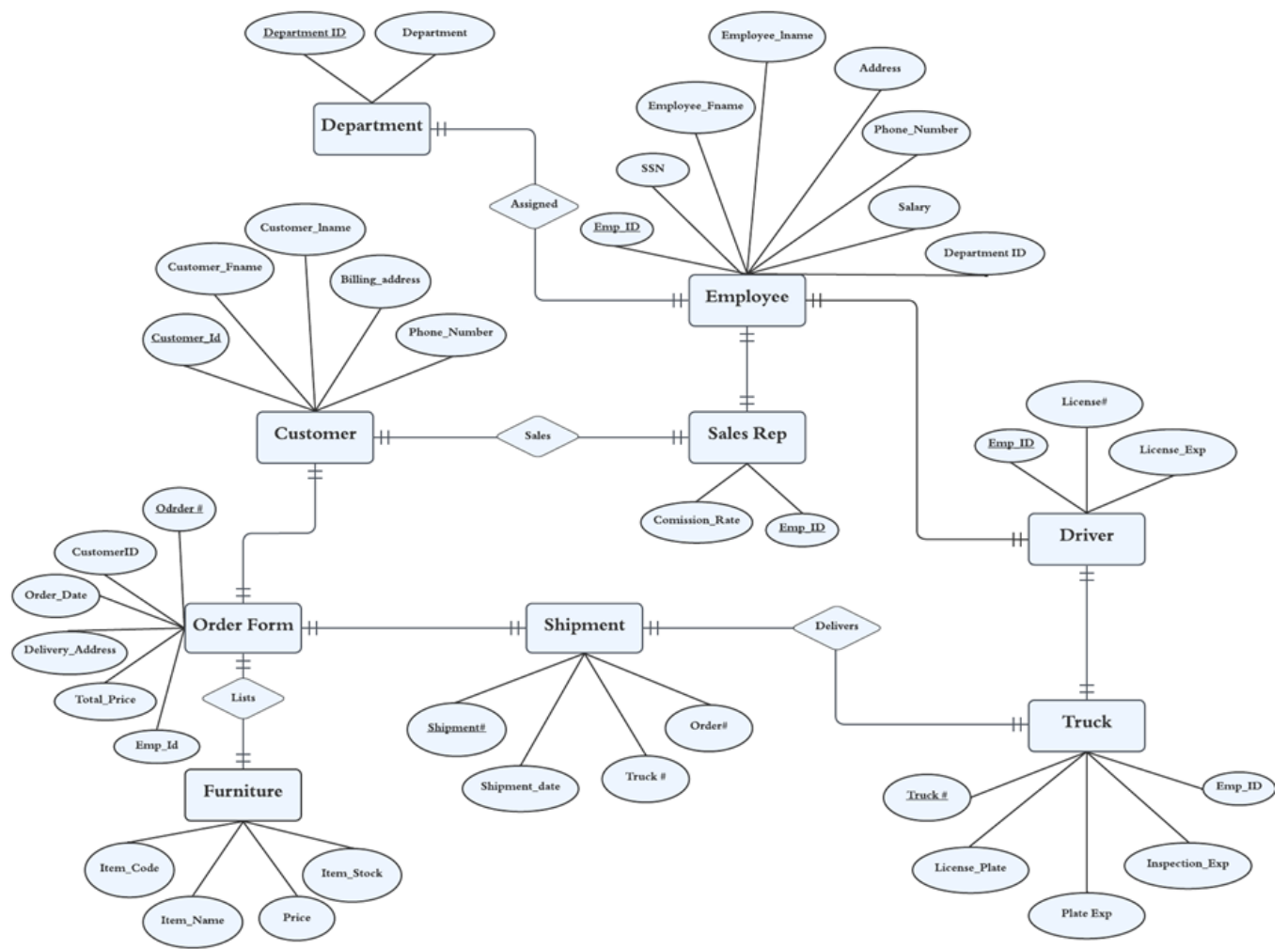
Supertype-subtype relationships:

18. Driver is a kind of Employee. Employee can be a Driver.
19. Sales Rep is a kind of Employee. Employee can be a Sales Rep.

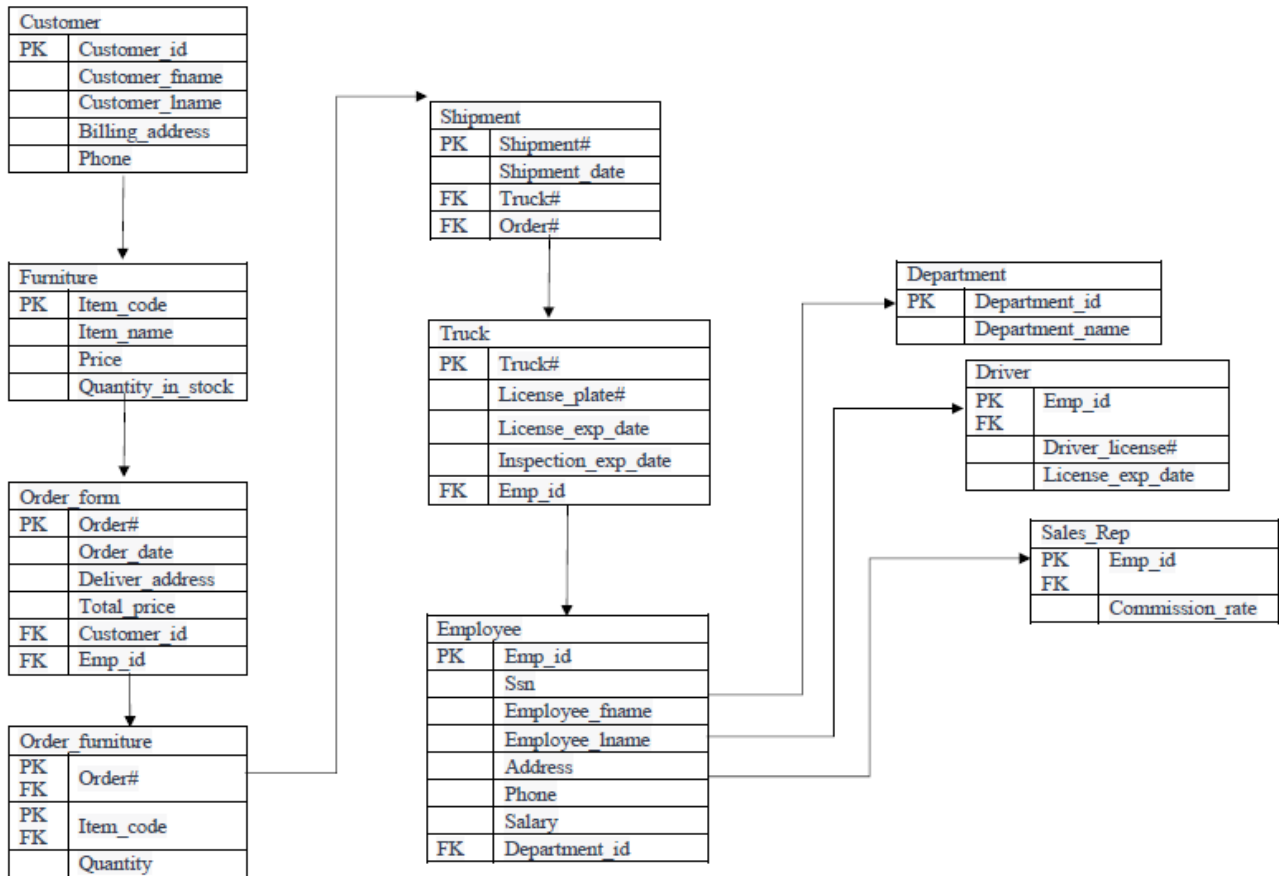
Part II:

a. E-R diagrams





b. Relational schema:



c. Data Dictionary:

Universal Furniture Outlet Data Dictionary								
Table Name	Attribute Name	Contents	Type	Format	Range	Required	PK or FK	FK Reference d Table
customer	Customer_id	Customer account number	CHAR(8)	99999999	100000000-999999999	Y	PK	
	Customer_fname	Customer first name	VARCHAR(20)	Xxxxxxxx				
	Customer_lname	Customer last name	VARCHAR2(20)	Xxxxxxxx		Y		
	Billing_address	Customer Billing Address	VARCHAR2(35)	9999Xxxxxxx		Y		
	phone	Customer Phone Number	CHAR(11)	999-999-9999	10000000000-99999999999	Y		
Furniture	Item_code	Item code	CHAR(10)	999999999999	1000000000-9999999999	Y	PK	
	Item_name	Item name	VARCHAR2(15)	Xxxxxxxxxx		Y		
	price	Price of each furniture type	NUMBER(9,2)	9,999,999.99				
	Quantity_in_stock	Quantity in stock	VARCHAR2(4)	9999	1000-9999			
Order_form	Order#	Order number	CHAR(8)	99999999	100000000-999999999	Y	PK	
	Order_date	Order date	DATE	dd-mmm-yyyy		Y		
	Customer_id	Customer number	CHAR(8)	99999999	100000000-999999999	Y	FK	Customer
	Delivery_address	Delivery address	VARCHAR2(35)	9999Xxxxxxx		Y		
	Total_price	Total price of furniture	NUMBER(9,2)	9,999,999.99	1000000.00-9999999.99			
	Emp_id	Employee number	CHAR(8)	9999999999	100000000-999999999	Y	FK	Employee
Shipment	Shipment#	Shipment number	VARCHAR2(10)	999999999999	1000000000-9999999999	Y	PK	
	Shipment_date	Shipment Date	DATE	dd-mmm-yyyy		Y		
	Truck_number	Truck number	VARCHAR2(8)	99999999	100000000-999999999	Y	FK	
	Order_number	Order number	VARCHAR2(10)	9999999999	1000000000-9999999999	Y		
Truck	Truck#	Vehicle number	VARCHAR2(8)	9999999999	100000000-999999999	Y	PK	
	License_plate#	License plate number	VARCHAR2(7)	XXX9999		Y		

	License_exp_date	License expiration date	DATE	dd-mmm-yyyy				
	Inspection_exp_date	Inspection expiration date	DATE	dd-mmm-yyyy				
	Emp_id	Employee number	CHAR(8)	99999999	100000000-999999999	Y	FK	Employee
Employee	Emp_id	Employee number	CHAR(8)	99999999	100000000-999999999	Y	PK FK	Department Driver Sales Rep
	ssn	Employee social security number	CHAR(9)	999999999	100000000-999999999			
	Employee_fname	Employee First name	VARCHAR2(30)	Xxxxxxxxxxxx		Y		
	Employee_lname	Employee last name						
	address	Employee address	VARCHAR2(35)	9999Xxxxxxx		Y		
	phone	Employee phone	CHAR(10)	9999999999	1000000000-999999999	Y		
	salary	Employee salary	NUMBER(9,2)	9,999,999.99	1000000.00-9999999.99			
	Department_id	Employee department number	CHAR(8)	99999999	100000000-999999999	Y	FK	Department
Driver	Emp_id	Employee number	CHAR(8)	99999999	100000000-999999999	Y	PK FK	Truck
	Driver_license#	Drivers license number	CHAR(8)	99999999	100000000-999999999	Y		
	License_exp_date	Drivers license expiration date	DATE	dd-mmm-yyyy				
Sales Rep	Emp_id	Sales employee number	CHAR(8)	99999999	100000000-999999999	Y	PK FK	Employee
	Commission_rate	Commission rate	NUMBER(6,2)	9999.99	1000.00-9999.99	Y		
Department	Department_id	Department number	CHAR(8)	99999999	100000000-999999999	Y	PK	
	Department_name	Department name	VARCHAR2(20)	Xxxxxxxxxxxx		Y		

d. SQL Tables script

```
create table customer (  
    customer_id char(8) primary key,  
    customer_fname varchar2(20),  
    customer_lname varchar2(20) not null,  
    billing_address varchar2(35) not null,  
    phone char(11) not null  
);
```

```
create table furniture (  
    item_code char(10) primary key,  
    item_name varchar2(15) not null,  
    price number(9,2),  
    quantity_in_stock varchar2(4)  
);
```

```
create table department (  
    department_id char(8) primary key,  
    department_name varchar2(20) not null  
);
```

```
create table employee (  
    emp_id char(8) primary key,  
    ssn char(9),  
    employee_fname varchar2(30) not null,  
    employee_lname varchar2(30),  
    address varchar2(35) not null,  
    phone char(10) not null,  
    salary number(9,2),  
    department_id char(8) references department(department_id)  
);
```

```
create table truck (  
    truck_number varchar2(8) primary key,  
    license_plate varchar2(7) not null,  
    license_exp_date date,  
    inspection_exp_date date,  
    emp_id char(8) references employee(emp_id)  
);
```

```
create table driver (  
    emp_id char(8) references employee(emp_id),  
    driver_license char(8) not null,  
    dr_license_exp_date date
```


);

```
create table sales_rep (  
    emp_id char(8) primary key references employee(emp_id),  
    commission_rate number (6,2) not null  
);
```

```
create table order_form (  
    order_number char(8) primary key,  
    order_date DATE not null,  
    customer_id char(8) references customer(customer_id),  
    delivery_address varchar2(25) not null,  
    total_price number(9,2),  
    emp_id char(8) references employee(emp_id)  
);
```

```
create table shipment (  
    shipment_number varchar2(10) primary key,  
    shipment_date date not null,  
    truck_number varchar2(8) references truck(truck_number),  
    order_number char(8) references order_form(order_number)  
);
```

```
insert into customer values (10012345, 'Laura', 'Jackson', '3301 Blue Road', 46928017761);  
insert into customer values (12980022, 'Robert', 'Smith', '1100 Autumn Lane', 98795090023);  
insert into customer values (13359231, 'Joshua', 'Wells', '1959 Kingdom Drive', 12110438004);  
insert into customer values (19866097, 'Zoe', 'Patrick', '7070 Mayfield Road', 23788900299);  
insert into customer values (17606549, 'Matthew', 'Jordan', '2348 Lakewood Drive', 81776407985);
```

```
insert into furniture values (8755509821, 'coffee_table', 500.00, 2300);  
insert into furniture values (9008712343, 'sofa', 899.99, 1040);  
insert into furniture values (8076440228, 'tv_stand', 300.00, 3000);  
insert into furniture values (3220998471, 'bookshelf', 450.00, 1500);  
insert into furniture values (6500895422, 'accent_chair', 550.00, 1800);
```

```
insert into department values (19876000, 'Management');  
insert into department values (98760332, 'IT');  
insert into department values (21887609, 'Finance');  
insert into department values (11255479, 'Sales');  
insert into department values (80770652, 'Marketing');
```

```
insert into employee values (22009987, 213908456, 'Wendy', 'Daniel', '1911 Pleasant Ridge Lane',  
3445789006, 30000, 19876000);  
insert into employee values (90076893, 377080975, 'John', 'Greenfield', '804 Pecan Avenue', 0057894221,  
45000, 98760332);
```

insert into employee values (77566432, 901558763, 'Layla', 'Perkins', '6040 West Park Lane', 9728845081, 40000, 21887609);
insert into employee values (14415602, 887551107, 'Brock', 'Hunt', '9045 Lovefield Road', 2145789039, 39500, 11255479);
insert into employee values (38901117, 460937689, 'Harold', 'Jackson', '5541 Ranch Hill', 4698740099, 41000, 80770652);

insert into truck values (10092771, 3312903, '12-FEB-25', '30-APR-24', 22009987);
insert into truck values (87760921, 1212093, '23-MAY-24', '17-JAN-25', 90076893);
insert into truck values (90087531, 8874353, '14-JUN-23', '29-MAY-23', 77566432);
insert into truck values (88657423, 7165463, '27-DEC-26', '14-NOV-25', 14415602);
insert into truck values (10045824, 2234778, '19-OCT-23', '04-AUG-23', 38901117);

insert into driver values (22009987, 35778612, '09-JAN-29');
insert into driver values (90076893, 70054410, '13-FEB-26');
insert into driver values (77566432, 33223456, '17-MAY-27');
insert into driver values (14415602, 55674891, '09-DEC-29');
insert into driver values (38901117, 33214790, '18-OCT-28');

insert into sales_rep values (22009987, 2300.00);
insert into sales_rep values (90076893, 2200.00);
insert into sales_rep values (77566432, 2500.00);
insert into sales_rep values (14415602, 2400.00);
insert into sales_rep values (38901117, 2100.00);

insert into order_form values (90123480, '13-APR-23', 10012345, '1415 Pinewood Drive', 3150.00, 22009987);
insert into order_form values (70098174, '14-APR-23', 12980022, '8009 Greenfield Avenue', 1400.00, 90076893);
insert into order_form values (54003211, '16-APR-23', 13359231, '4321 East Park Lane', 1275.00, 77566432);
insert into order_form values (30069182, '20-APR-23', 19866097, '1888 Whitegrass Drive', 1550.00, 14415602);
insert into order_form values (82340056, '21-APR-23', 17606549, '6707 Lockit Lane', 2300.00, 38901117);

insert into shipment values (4557066982, '19-APR-23', 10092771, 90123480);
insert into shipment values (8970004322, '20-APR-23', 87760921, 70098174);
insert into shipment values (1190887326, '21-APR-23', 90087531, 54003211);
insert into shipment values (5577059805, '24-APR-23', 88657423, 30069182);
insert into shipment values (2214453123, '25-APR-23', 10045824, 82340056);

grant select on customer to ssk7315;
grant select on furniture to ssk7315;
grant select on department to ssk7315;
grant select on employee to ssk7315;
grant select on truck to ssk7315;
grant select on driver to ssk7315;

```
grant select on sales_rep to ssk7315;  
grant select on order_form to ssk7315;  
grant select on shipment to ssk7315;
```

```
describe customer;  
select * from customer;
```

```
describe furniture;  
select * from furniture;
```

```
describe department;  
select * from department;
```

```
describe employee;  
select * from employee;
```

```
describe truck;  
select * from truck;
```

```
describe driver;  
select * from driver;
```

```
describe sales_rep;  
select * from sales_rep;
```

```
describe order_form;  
select * from order_form;
```

```
describe shipment;  
select * from shipment;
```

e. SQL Queries

/*SQL queries*/

/*1*/

```
Select customer_fname, customer_lname, billing_address, phone  
From Customer;
```

/*2*/

```
Alter Table Order_Form  
Add(Customer_Fname varchar(20),  
    Customer_Lname varchar(20),  
    Billing_Address varchar(20),  
    Shipment_Number varchar(10),  
    Shipment_Date date,  
    Truck_Number varchar(8));
```

/*EDIT for above - Add phone number of customer to order_form.*/

```
Alter Table Order_Form  
Add Phone CHAR(11 );
```

/*Add Records to Laura's row in the order form table*/

```
Update Order_Form  
Set Customer_Fname = 'Laura',  
    Customer_Lname = 'Jackson ',  
    Billing_Address= '3301 Blue Road ',  
    Shipment_Date= '19-APR-23',  
    Truck_Number = 1009277  
Where Order_Number = 90123480;
```

/*EDIT for above- Add phone and order number records as string values for Laura into her row.*/

```
Update Order_Form  
Set Phone = '46928017761 ', Truck_Number = '1009277 '  
Where Order_Number = 90123480;
```

/*3*/

```
Select Employee.Phone  
From Order_Form, Employee  
Where Order_Form.Emp_Id = Employee.Emp_Id  
And Order_Form.Order_Number = 90123480;
```

/*4*/

```
Select Customer_Id
```

```
From Driver, Order_Form  
Where Driver.Emp_Id = Order_Form.Emp_Id  
And Driver.Emp_Id = 22009987;
```

```
/*5*/
```

```
Select Item_Name as "Item", (price * quantity_in_stock) as "Total Value"  
From Furniture  
Where price > 25;
```

Peer Evaluation

Please evaluate each of your team members on the following items using a 10 point scale. A score of 10 indicates best performance and a score of 1 indicates worst performance. After evaluating your teammates, evaluate yourself on each of the item.

Underline or highlight your name.

- | <u>Item #</u> | <u>Task</u> |
|---------------|--|
| 1 | Performed assigned tasks correctly |
| 2 | Performed assigned tasks in a timely manner |
| 3 | Was able to work independently on assigned tasks |
| 4 | Readily accepted responsibility |
| 5 | Provided positive, creative input |
| 6 | Interacted well with other members of the group |
| 7 | Total points - Please calculate and list |

Group member name that completed this form: Berenshia Apunda

Member Name	1	2	3	4	5	6	7
Berenshia Apunda	10	10	10	10	10	10	60
Abigail Bradley	10	10	10	10	10	10	60
Travis Luong	10	10	10	10	10	10	60
Ayanna Michael	10	10	10	10	10	10	60
Ana Perales	10	10	10	10	10	10	60
Niharika Venkatesha	10	10	10	10	10	10	60

Group member name that completed this form: Travis Luong

Member Name	1	2	3	4	5	6	7
Berenshia Apunda	10	10	10	10	10	10	60
Abigail Bradley	10	10	10	10	10	10	60
Travis Luong	10	10	10	10	10	10	60
Ayanna Michael	10	10	10	10	10	10	60
Ana Perales	10	10	10	10	10	10	60
Niharika Venkatesha	10	10	10	10	10	10	60

Group member name that completed this form: Abigail Bradley

Member Name	1	2	3	4	5	6	7
Berenshia Apunda	10	10	10	10	10	10	60
Abigail Bradley	10	10	10	10	10	10	60
Travis Luong	10	10	10	10	10	10	60
Ayanna Michael	10	10	10	10	10	10	60
Ana Perales	10	10	10	10	10	10	60
Niharika Venkatesha	10	10	10	10	10	10	60

Group member name that completed this form: Ayanna Michael

Member Name	1	2	3	4	5	6	7
Berenshia Apunda	10	10	10	10	10	10	60
Abigail Bradley	10	10	10	10	10	10	60
Travis Luong	10	10	10	10	10	10	60
Ayanna Michael	10	10	10	10	10	10	60
Ana Perales	10	10	10	10	10	10	60
Niharika Venkatesha	10	10	10	10	10	10	60

Group member name that completed this form: Ana Perales

Member Name	1	2	3	4	5	6	7
Berenshia Apunda	10	10	10	10	10	10	60
Abigail Bradley	10	10	10	10	10	10	60
Travis Luong	10	10	10	10	10	10	60
Ayanna Michael	10	10	10	10	10	10	60
Ana Perales	10	10	10	10	10	10	60
Niharika Venkatesha	10	10	10	10	10	10	60

Group member name that completed this form: Niharika Venkatesha

Member Name	1	2	3	4	5	6	7
Berenshia Apunda	10	10	10	10	10	10	60
Abigail Bradley	10	10	10	10	10	10	60
Travis Luong	10	10	10	10	10	10	60
Ayanna Michael	10	10	10	10	10	10	60
Ana Perales	10	10	10	10	10	10	60
Niharika Venkatesha	10	10	10	10	10	10	60