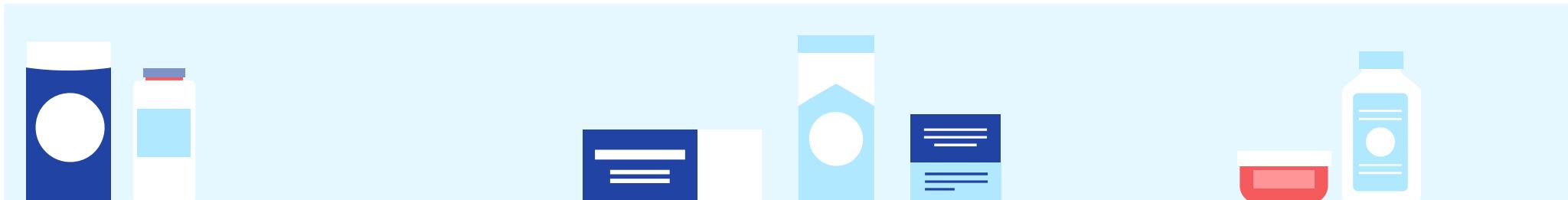


Database Project

COMP 122

April 4, 2023

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Background

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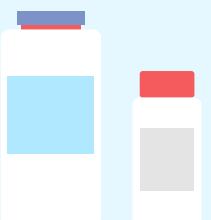
ER Diagram

Relationship between tables

05

Data Manipulation

Manipulation of data on typical use cases



01

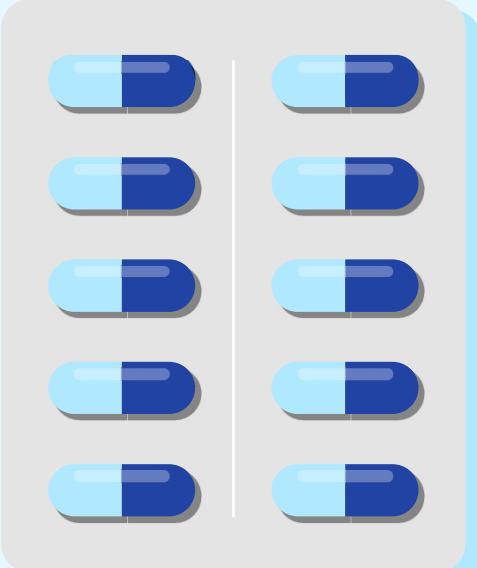
Background

Online Pharmacy



Background

This software project aims to provide a website for a newly established online pharmacy. This project provides the structural plan for the backend database development of their new e-commerce system.



Unique Concerns

1. Some drugs require a prescription obligating us to validate against the prescription presented by customers before accepting their order. Therefore, the system must manage the relationship between customer orders and their prescriptions.



The system will access what drugs customers are placing in their shopping cart prior to checking out. In order to facilitate the marketing team proactively contacting them in order to provide additional information to help them make their decision (i.e. price concern, medical efficacy).

- 2.



02

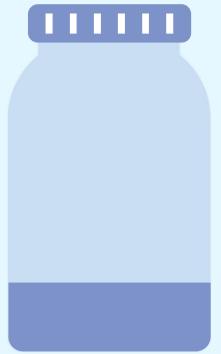
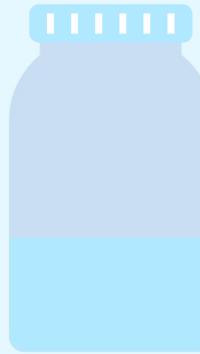
Schemas

Table descriptions

Customers Table



Table collecting customer data such as name, address, contact information. This table is required for each customer shopping in the online store.



Primary Key

Customer_ID

Constraints

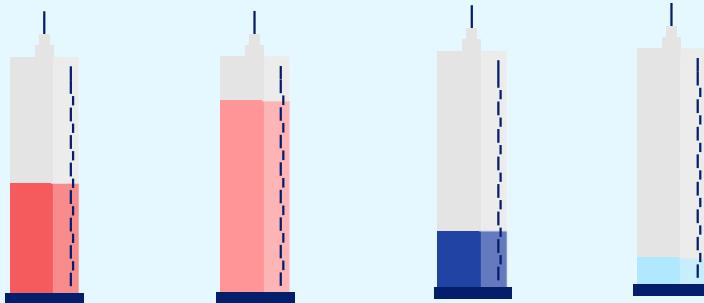
Email_Address:

REGEXP_LIKE (Email_Address, '^[A-Za-z0-9._%+-]+@[A-Za-z0-9.-]+\.[A-Za-z]{2,4}\$')

Prescriptions Table



Table collects patient information and prescription information including name, address, Customer_ID, prescription date, drug name, number of refills, as well as the doctor's information



Primary Key
Prescription_ID

Foreign Key
Customer_ID

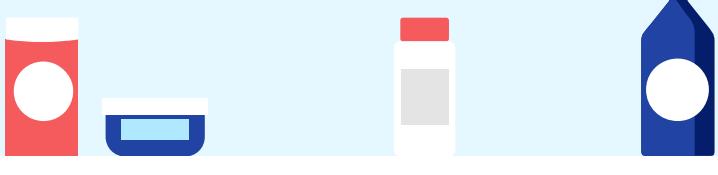
Constraints
Num_Refills:
Number_Refills >= 0

Num_Orders:
Number_Orders <= (Number_Refills + 1)

Patient_Email:
REGEXP_LIKE (Patient_Email, '^[A-Za-z0-9._%+-]+@[A-Za-z0-9.-]+\\.[A-Za-z]{2,4}\$')

Drugs Table

This table contains information about each drug carried by the pharmacy and includes drug identification number, whether a prescription is required, the manufacturer, and price.



Primary Key

Drug_ID

Constraints

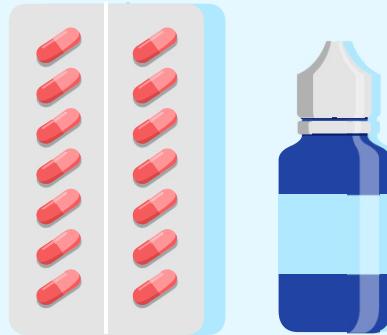
Is_Prescription_Required:
Is_Prescription_Required IN (0, 1)

Retail_Price:

Retail_Price > 0

Promotion_Amount:

Promotion_Amount >= 0 AND Promotion < Retail_Price



Orders Table

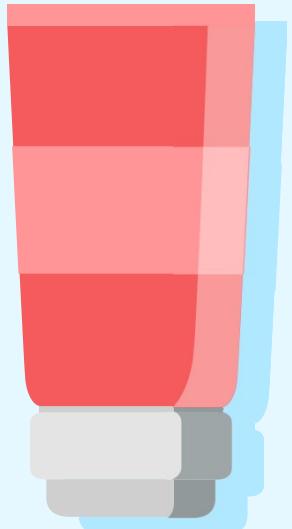
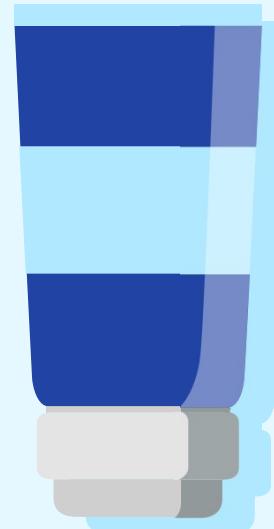
Primary Key
Order_ID

Constraints

Shipping_Date:
Shipping_Date >= Order_Date AND
(Shipping_Date IS NULL AND
Shipping_Status IN (0, 1)) OR (Shipping_Date
IS NOT NULL AND Shipping_Status IN (2, 3)))"

Shipping_Status:
Shipping_Status IN (0, 1, 2, 3)

Table for each order containing order
and shipping information.



Primary Key

Cart_Num

Foreign Key

Customer_ID

Constraints

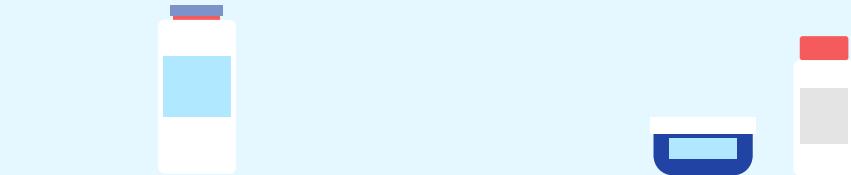
Order_Status:

Order_Status IN (0, 1, 2, 9)

Order_ID:

Foreign key of gpn_r_orders on Order_ID

Order_ID IS NULL OR Order_Status = 2



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Cart Items Table

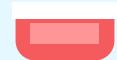
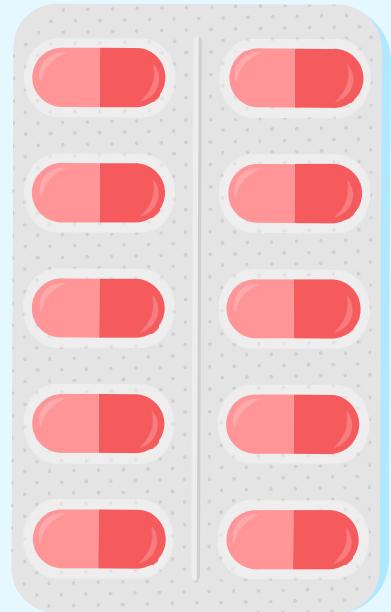


Table containing the information for each item added to the shopping cart.



Composite Primary Key

Cart_Num + Drug_ID

Foreign Key

Cart_Num

Drug_ID

Prescription_ID





03

Sample Data

Data within tables



Sample Data

Columns Data Model Constraints Grants Statistics Triggers Flashback Dependencies Details Partitions Indexes SQL

Sort.. Filter:

	CUSTOMER_ID	FIRSTNAME	LASTNAME	HOME_ADDRESS	PHONE_NUMBER	EMAIL_ADDRESS
1	1	John	Doe	115 Omni Drive, Unit#1104, Scarborough, CA	647-1234-1122	john.doe@gmail.com
2	2	Jane	Smith	123 Omni Drive, Unit#1122, Scarborough, CA	647-5678-4422	jane.smith@yahoo.com.ca
3	3	Bob	Johnson	789 Maple St, Midland, CANADA	647-9012-1234	bob.johnson@gmail.com
4	4	Alice	Williams	321 Elm St, Surrey, CANADA	647-3456-3244	alice.williams@tnt.com
5	5	Tom	Brown	520 Ellemere St, Scarborough, CANADA	647-7890-4741	tom.brown@gmail.com
6	6	Sue	Davis	967 Cedar St, Scarborough, CANADA	647-2345-4221	sue.davis@yahoo.com
7	7	Mike	Miller	326 Birch St, Caifornia, USA	647-6789-1222	mike.miller@gmail.com
8	8	Karen	Garcia	412 Oak St, Edminton, CANADA	647-0123-4411	karen.garcia@gmail.com
9	9	David	Lee	157 Midland St, Scarborough, Canada	647-4567-4423	david.lee@gmail.com
10	10	Amy	Wang	223 Finch Ave., Scarborough, CANADA	647-8901-5232	amy.wang@gmail.com

gpnrc_prescriptions

gpnrc_customers

PRESCRIPTION_DATE	DOCTOR_NAME	DOCTOR_CPSO	DOCTOR_ADDRESS	DOCTOR_PHONE
03-APR-23	Dr. Ellen	12345678	647 Kennedy Road, Unit#305, Scarborough, CA	647-383-5451
03-APR-23	Dr. Johnson	87654321	647 Kennedy Road, Unit#303, Scarborough, CA	647-382-5411
03-APR-23	Dr. Lee	19283746	987 Cedar St,Cedarwood, CANADA	647-344-6299
03-APR-23	Dr. Brown	23456789	456 Pharmacy drive, Surrey, CANADA	647-555-8901
03-APR-23	Dr. Davis	65432198	643 Ellemere St, Unit#201, Scarborough, CA	555-4567
03-APR-23	Dr. Williams Dickson	91827364	789 Oak St, Unit#101, Markham, CANADA	647-555-9012
03-APR-23	Dr. Garcia Leung	56789123	321 Elm St, Caifornia, USA	647-505-2345
03-APR-23	Dr. Sharma Wang	12345678	789 Yonge St, Downtown, CANADA	647-355-5678
03-APR-23	Dr. Ian Dickson	12345678	456 Finch Ave., Unit#405, Scarborough, CANADA	647-984-5678
03-APR-23	Dr. Wayne Henrys	12345678	441 Silver Street, Markham, CANADA	647-374-5176

Sample Data

	DRUG_ID	IS_PRESCRIPTION_REQUIRED	MANUFACTURER	DRUG_NAME	NUM_OF_TABLETS	DRUG_DESCRIPTION	RETAIL_PRICE	PROMOTION_AMOUNT
1	1	1	Pfizer	Viagra	30	Treats erectile dysfunction	100	10
2	2	1	AstraZeneca	Crestor	90	Lowers cholesterol	200	0
3	3	0	Tylenol	Extra Tylenol	24	Pain relief	10	0
4	4	0	Bayer	Aspirin	100	Pain relief	5	0
5	5	1	Novartis	Ritalin	60	Treats ADHD	50	0
6	6	0	Johnson and Johnson	Benadryl	24	Allergy relief	8	0
7	7	1	Merck	Propecia	30	Treats baldness	120	20
8	8	0	Advil	Advil	50	Pain relief	12	0
9	9	1	Astellas Pharma	Myrbetriq	30	Treats overactive bladder	150	0
10	10	1	Eli Lilly	Cialis	20	Treats erectile	200	25

gpn_r_drugs

	ORDER_ID	ORDER_DATE	SHIPPING_DATE	SHIPPING_ADDRESS	SHIPPING_STATUS
1	110	30-MAR-23	(null)	115 Omni Drive, Unit#1104, Scarborough, CA	1
2	111	28-MAR-23	02-APR-23	123 Omni Drive, Unit#1122, Scarborough, CA	2
3	112	27-MAR-23	(null)	789 Maple St, Midland, CANADA	0
4	113	29-MAR-23	(null)	321 Elm St, Surrey, CANADA	0
5	114	26-MAR-23	01-APR-23	1213 Pine St, Surrey CANADA	3
6	115	23-MAR-23	30-MAR-23	520 Ellemere St, Scarborough, CANADA	2
7	116	22-MAR-23	(null)	1819 Oak Ave., Toronto, CANADA	0
8	117	20-MAR-23	28-MAR-23	2021 Maple St, Toronto, CANADA	3
9	118	18-MAR-23	(null)	6123 Ellsmere, Scarborough, CANADA	1
10	119	24-MAR-23	(null)	719 Suen Yat Sin Ave., Markham, CANADA	1

gpn_r_orders



Sample Data

gpnrcarts

	CART_NUM	CUSTOMER_ID	ORDER_STATUS	ORDER_ID
1	101	1	2	110
2	102	2	2	111
3	103	3	2	112
4	104	4	2	113
5	105	5	2	114
6	106	6	2	115
7	107	7	2	116
8	108	8	2	117
9	109	9	2	118
10	110	10	2	119
11	111	1	1	(null)
12	112	2	0	(null)
13	113	3	9	(null)

	CART_NUM	DRUG_ID	PRESCRIPTION_ID	UNIT_PRICE	QUANTITY	ITEM_PRICE
1	101	2	1	200	2	400
2	101	5	9	50	2	100
3	101	9	10	150	1	150
4	102	5	2	50	5	250
5	103	1	3	90	4	360
6	103	7	4	100	1	100
7	104	4	(null)	5	7	35
8	105	2	5	200	2	400
9	106	3	(null)	10	4	40
10	107	8	(null)	12	10	120
11	107	9	7	150	1	150
12	108	2	8	200	1	200
13	108	6	(null)	8	15	120
14	109	3	(null)	10	6	60
15	109	4	(null)	5	10	50
16	110	8	(null)	12	3	36
17	111	2	1	200	1	200
18	111	3	(null)	10	2	20
19	112	4	(null)	5	4	20
20	113	1	(null)	90	1	90

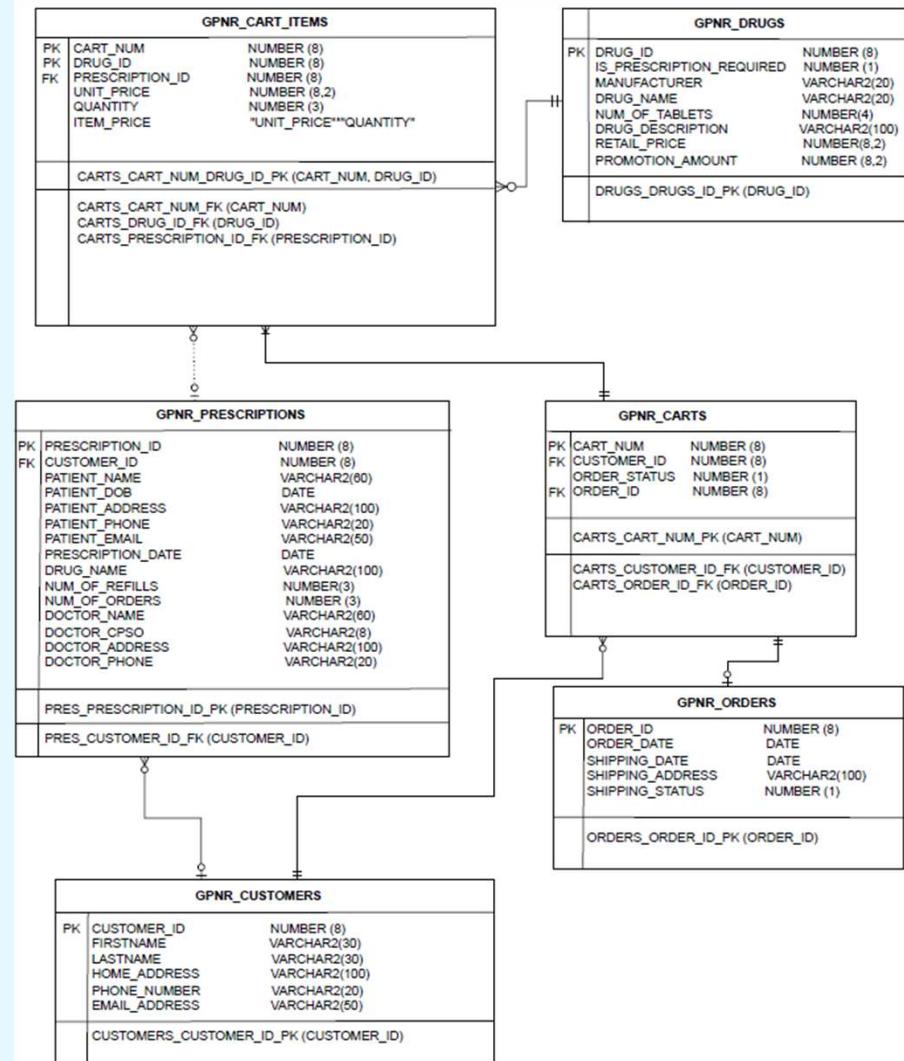
gpnrcarts_items

04

ER Diagram

Relationship between
tables

ER Diagram





05 Data Manipulation

Manipulation of data on typical use cases

Use Case 1

Customer put drugs to his new shopping cart

Tom brown (customer# 5) created his new shopping cart (cart num#114), added 2 drugs, which are Creator (drug#2, need prescription) and Advil (drug#8, non-prescription drug).

```
INSERT INTO gpnrcarts (Cart_Num,  
Customer_ID, Order_Status,  
Order_ID)  
VALUES(114, 5, DEFAULT, DEFAULT);
```

```
INSERT INTO gpnrcart_items  
(Cart_Num, Drug_ID, Prescription_ID,  
Unit_Price, Quantity)  
VALUES(114, 2, NULL, 200, 1);
```

```
INSERT INTO gpnrcart_items  
(Cart_Num, Drug_ID, Prescription_ID,  
Unit_Price, Quantity)  
VALUES(114, 8, NULL, 12, 2);
```

	CART_NUM	CUSTOMER_ID	ORDER_STATUS	ORDER_ID
1	101	1	2	110
2	102	2	2	111
3	103	3	2	112
4	104	4	2	113
5	105	5	2	114
6	106	6	2	115
7	107	7	2	116
8	108	8	2	117
9	109	9	2	118
10	110	10	2	119
11	111	1	1	(null)
12	112	2	0	(null)
13	113	3	9	(null)
14	114	5	0	(null)

gpnrcarts

gpnrcarts_items

	CART_NUM	DRUG_ID	PRESCRIPTION_ID	UNIT_PRICE	QUANTITY	ITEM_PRICE
1	101	2	1	200	2	400
2	101	5	9	50	2	100
3	101	9	10	150	1	150
4	102	5	2	50	5	250
5	103	1	3	90	4	360
6	103	7	4	100	1	100
7	104	4	(null)	5	7	35
8	105	2	5	200	2	400
9	106	3	(null)	10	4	40
10	107	8	(null)	12	10	120
11	107	9	7	150	1	150
12	108	2	8	200	1	200
13	108	6	(null)	8	15	120
14	109	3	(null)	10	6	60
15	109	4	(null)	5	10	50
16	110	8	(null)	12	3	36
17	111	2	1	200	1	200
18	111	3	(null)	10	2	20
19	112	4	(null)	5	4	20
20	113	1	(null)	90	1	90
21	114	2	(null)	200	1	200
22	114	8	(null)	12	2	24

Use Case 2



Customer checkout his/her shopping cart

Tom brown (customer# 5) checkout his shopping cart (cart num#114) and pending prescription validation.

	CART_NUM	CUSTOMER_ID	ORDER_STATUS	ORDER_ID
1	101	1	2	110
2	102	2	2	111
3	103	3	2	112
4	104	4	2	113
5	105	5	2	114
6	106	6	2	115
7	107	7	2	116
8	108	8	2	117
9	109	9	2	118
10	110	10	2	119
11	111	1	1	(null)
12	112	2	0	(null)
13	113	3	9	(null)
14	114	5	1	(null)



```
UPDATE gpnrcarts SET Order_Status = 1 WHERE cart_num = 114;
```

Use Case 3

Customer links their subscription to the drug order checked out

Tom brown (customer# 5) checkout his shopping cart (cart num#114), one of the ordered item is Crestor (drug#2) need prescription, so he need to link-up this order item to the prescription he submitted (ID#5) to our pharmacy before.

```
UPDATE gpnrcart_items  
SET Prescription_ID = 5  
WHERE Cart_Num = 114 and Drug_ID = 2;
```

CART_NUM	DRUG_ID	PRESCRIPTION_ID	UNIT_PRICE	QUANTITY	ITEM_PRICE
1	101	2	1	200	2
2	101	5	9	50	2
3	101	9	10	150	1
4	102	5	2	50	5
5	103	1	3	90	4
6	103	7	4	100	1
7	104	4	(null)	5	7
8	105	2	5	200	2
9	106	3	(null)	10	4
10	107	8	(null)	12	10
11	107	9	7	150	1
12	108	2	8	200	1
13	108	6	(null)	8	15
14	109	3	(null)	10	6
15	109	4	(null)	5	10
16	110	8	(null)	12	3
17	111	2	1	200	1
18	111	3	(null)	10	2
19	112	4	(null)	5	4
20	113	1	(null)	90	1
21	114	2	5	200	1
22	114	8	(null)	12	2

Use Case 4

Our staff validated customer's prescription and created an order

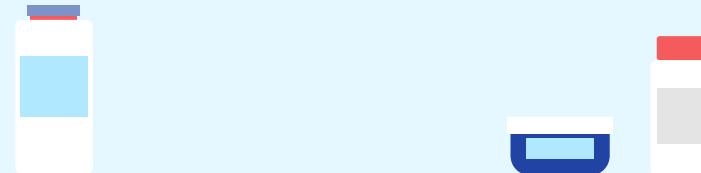
	ORDER_ID	ORDER_DATE	SHIPPING_DATE	SHIPPING_ADDRESS	SHIPPING_STATUS
1	110	30-MAR-23	(null)	115 Omni Drive, Unit#1104, Scarborough, CA	1
2	111	28-MAR-23	02-APR-23	123 Omni Drive, Unit#1122, Scarborough, CA	2
3	112	27-MAR-23	(null)	789 Maple St, Midland, CANADA	0
4	113	29-MAR-23	(null)	321 Elm St, Surrey, CANADA	0
5	114	26-MAR-23	01-APR-23	1213 Pine St, Surrey CANADA	3
6	115	23-MAR-23	30-MAR-23	520 Ellemere St, Scarborough, CANADA	2
7	116	22-MAR-23	(null)	1819 Oak Ave., Toronto, CANADA	0
8	117	20-MAR-23	28-MAR-23	2021 Maple St, Toronto, CANADA	3
9	118	18-MAR-23	(null)	6123 Ellsmere, Scarborough, CANADA	1
10	119	24-MAR-23	(null)	719 Suen Yat Sin Ave., Markham, CANADA	1
11	→ 120	02-APR-23	(null)	520 Ellemere St, Scarborough, CANADA	0

	PRESCRIPTION_ID	CUSTOMER_ID	PATIENT_NAME	DRUG_NAME	NUM_OF_REFILLS	NUM_OF_ORDERS
1		1	1 Jane Doe	Crestor	3	2 0
2		2	2 Jane Smith	Ritalin	2	1 1
3		3	3 Bob Johnson	Viagra	1	0 2
4		4	3 Solomon	Propecia	2	1 3
5	→	5	5 Tom Brown	Crestor	0	1 0

```

INSERT INTO gpnrc_orders (Order_ID, Order_Date, Shipping_Date, Shipping_Address, Shipping_Status)
VALUES (120, DEFAULT, NULL, '520 Ellemere St, Scarborough, CANADA', DEFAULT);
UPDATE gpnrc_carts SET Order_status = 2, Order_ID = 120 WHERE Cart_Num = 114;
UPDATE gpnrc_prescriptions SET Num_of_Orders = Num_of_Orders + 1 WHERE Prescription_ID = 5;

```



Our staff validated Tom Brown (customer# 5) order with shopping cart (cart num#114), a new order (order#120) is created to deliver drugs to customer's home address. Num_of_Orders is updated as well for customer's prescription (Prescription#5).

	CART_NUM	CUSTOMER_ID	ORDER_STATUS	ORDER_ID
1	101	1	2	110
2	102	2	2	111
3	103	3	2	112
4	104	4	2	113
5	105	5	2	114
6	106	6	2	115
7	107	7	2	116
8	108	8	2	117
9	109	9	2	118
10	110	10	2	119
11	111	1	1	(null)
12	112	2	0	(null)
13	113	3	9	(null)
14	114	5	2	120

Use Case 5

Process customer orders (package, ship, and complete delivery)

	ORDER_ID	ORDER_DATE	SHIPPING_DATE	SHIPPING_ADDRESS	SHIPPING_STATUS
1	110	30-MAR-23	(null)	115 Omni Drive, Unit#1104, Scarborough, CA	1
2	111	28-MAR-23	02-APR-23	123 Omni Drive, Unit#1122, Scarborough, CA	2
3	112	27-MAR-23	(null)	789 Maple St, Midland, CANADA	0
4	113	29-MAR-23	(null)	321 Elm St, Surrey, CANADA	0
5	114	26-MAR-23	01-APR-23	1213 Pine St, Surrey CANADA	3
6	115	23-MAR-23	30-MAR-23	520 Ellemere St, Scarborough, CANADA	2
7	116	22-MAR-23	(null)	1819 Oak Ave., Toronto, CANADA	0
8	117	20-MAR-23	28-MAR-23	2021 Maple St, Toronto, CANADA	3
9	118	18-MAR-23	(null)	6123 Ellsmere, Scarborough, CANADA	1
10	119	24-MAR-23	(null)	719 Suen Yat Sin Ave., Markham, CANADA	1
11	120	02-APR-23	03-APR-23	520 Ellemere St, Scarborough, CANADA	3

The order (Order_ID#120) has been packaged, and then shipping on 03 Apr 2023, and subsequently delivered to customer's address.

UPDATE gpn_r_orders **SET** Shipping_Status = 1 **WHERE** Order_ID = 120;

UPDATE gpn_r_orders **SET** Shipping_Status = 2, Shipping_Date = '03 Apr 23' **WHERE** Order_ID = 120;

UPDATE gpn_r_orders **SET** Shipping_Status = 3 **WHERE** Order_ID = 120;

Use Case 6

Check shopping history of a specific customer

```
SELECT d.Firstname, d.Lastname, a.Cart_Num, c.Drug_Name  
"ORDERED_DRUG", c.Is_Prescription_Required, e.drug_name  
"PRESCRIBTED_DRUG",  
    b.Unit_Price, b.Quantity, a.Order_Status, a.Order_ID,  
f.Shipping_Status, f.Shipping_Date  
FROM gpnrcarts a  
LEFT JOIN gpnrcart_items b  
    ON a.cart_num = b.cart_num  
LEFT JOIN gpnrdrugs c  
    ON b.drug_id = c.drug_id  
LEFT JOIN gpnrcustomers d  
    ON a.Customer_ID = d.Customer_ID  
LEFT JOIN gpnrprescriptions e  
    ON b.Prescription_ID = e.Prescription_ID  
LEFT JOIN gpnroders f  
    ON a.Order_ID = f.Order_ID  
WHERE a.Customer_ID = 1  
ORDER BY b.cart_num;
```



Check shopping history of John Doe (Customer#1). After execution, we can know that he has 2 shopping carts, the first cart#101 contains Ritalin, Crestor Myrbetriq and already checked out, packaged and pending to ship. The 2nd cart#111 contains Crestor and Extra Tylenol, pending for our validation on prescription.

FIRSTNAME	LASTNAME	CART_NUM	ORDERED_DRUG	IS_PRESCRIPTION_REQUIRED	PRESCRIBTED_DRUG	UNIT_PRICE	QUANTITY	ORDER_STATUS	ORDER_ID	SHIPPING_STATUS	SHIPPING_DATE
1 John	Doe	101	Ritalin		1 Ritalin	50	2	2	110	1 (null)	
2 John	Doe	101	Crestor		1 Crestor	200	2	2	110	1 (null)	
3 John	Doe	101	Myrbetriq		1 Myrbetriq	150	1	2	110	1 (null)	
4 John	Doe	111	Crestor		1 Crestor	200	1	1 (null)	(null)	(null)	(null)
5 John	Doe	111	Extra Tylenol		0 (null)	10	2	1 (null)	(null)	(null)	(null)



Thanks

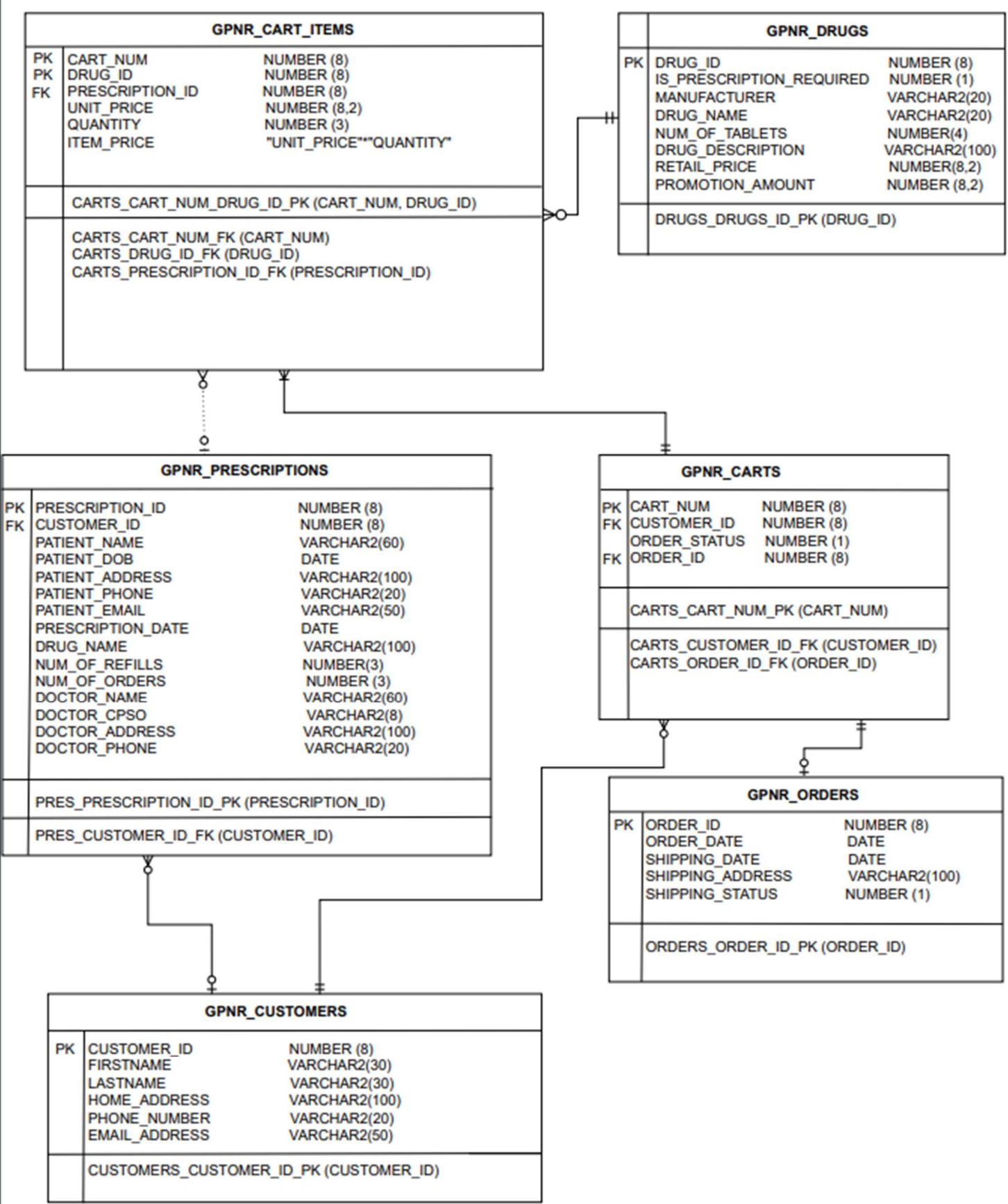
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ER Diagram



Create Tables

gpnrcustomers						
Fieldname	Type	NOT NULL	Primary Key	DEFAULT	CHECK Constraints	Descriptions
Customer_ID	NUMBER(8)	Y	Y			Customer unique ID
Firstname	VARCHAR2(30)	Y				Customer First Name
Lastname	VARCHAR2(30)					Customer Last Name
Home_Address	VARCHAR2(100)					
Phone_Number	VARCHAR2(20)	Y				
Email_Address	VARCHAR2(50)				REGEXP_LIKE (Email_Address, '^[A-Za-z0-9._%+-]+@[A-Za-z0-9.-]+\.[A-Za-z]{2,4}\$')	

Oracle SQL Developer : D:\Backup\Dropbox\Centennial Works\COMP122 - DB\Group Project\Group Project (122) (1).sql

File Edit View Navigate Run Source Team Tools Window Help

Connections Tony

SQL Worksheet History Group Project (122) (1).sql GPNR_CUSTOMERS

Worksheet Query Builder

```
-- CREATE TABLE gpnrcustomers (
CREATE TABLE gpnrcustomers (
    Customer_ID NUMBER(8) NOT NULL ENABLE,
    Firstname VARCHAR2(30) NOT NULL ENABLE,
    Lastname VARCHAR2(30),
    Home_Address VARCHAR2(100),
    Phone_Number VARCHAR2(20) NOT NULL ENABLE,
    Email_Address VARCHAR2(50),
    CONSTRAINT customers_Customer_ID_FK PRIMARY KEY (Customer_ID),
    CONSTRAINT customers_Email_CK CHECK (Email_Address, '^[A-Za-z0-9._%+-]+@[A-Za-z0-9.-]+\.[A-Za-z]{2,4}$')
);

-- CREATE TABLE gpnrcprescriptions (
CREATE TABLE gpnrcprescriptions (
    Prescription_ID NUMBER(8) NOT NULL ENABLE,
    Customer_ID NUMBER(8),
    Patient_Name VARCHAR2(60) NOT NULL ENABLE,
    Patient_DOB DATE NOT NULL ENABLE,
    Patient_Address VARCHAR2(100)
);
```

Script Output | Task completed in 0.05 seconds

Table GPNR_CUSTOMERS created.

Columns Data Model Constraints Grants Statistics Triggers Flashback Dependencies Details Partitions Indexes SQL Actions...

COLUMN_NAME	DATA_TYPE	NULLABLE	DATA_DEFAULT	COLUMN_ID	COMMENTS
1 CUSTOMER_ID	NUMBER(8,0)	No	(null)	1 (null)	
2 FIRSTNAME	VARCHAR2(30 BYTE)	No	(null)	2 (null)	
3 LASTNAME	VARCHAR2(30 BYTE)	Yes	(null)	3 (null)	
4 HOME_ADDRESS	VARCHAR2(100 B...)	Yes	(null)	4 (null)	
5 PHONE_NUMBER	VARCHAR2(20 BYTE)	No	(null)	5 (null)	
6 EMAIL_ADDRESS	VARCHAR2(50 BYTE)	Yes	(null)	6 (null)	

Columns Data Model Constraints Grants Statistics Triggers Flashback Dependencies Details Partitions Indexes SQL Actions...

CONSTRAINT_NAME	CONSTRAINT_TYPE	SEARCH_CONDITION
1 CUSTOMERS_CUSTOMER_ID_FK	Primary_Ke...y	(null)
2 CUSTOMERS_EMAIL_CK	Check	REGEXP_LIKE (Email_Address, '^[A-Za-z0-9._%+-]+@[A-Za-z0-9.-]+\.[A-Za-z]{2,4}\$')
3 SYS_C001683598	Check	"CUSTOMER_ID" IS NOT NULL
4 SYS_C001683599	Check	"FIRSTNAME" IS NOT NULL
5 SYS_C001683600	Check	"PHONE_NUMBER" IS NOT NULL

gpnrx_prescriptions					Descriptions	
Fieldname	Type	NOT NULL	Primary Key	DEFAULT	Other Constraints	
Prescription_ID	NUMBER(8)	Y	Y			ID in our system
Customer_ID	NUMBER(8)				Foreign key of gpnrx_customers on Customer_ID	
Patient_Name	VARCHAR2(60)	Y				Patient's full name
Patient_DOB	Date	Y				Patient's Data of Birth
Patient_Address	VARCHAR2(100)					
Patient_Phone	VARCHAR2(20)					
Patient_Email	VARCHAR2(50)				REGEXP_LIKE (Patient_Email, '^([A-Za-z0-9-_#+-]+@[A-Za-z0-9.-]+\.[A-Za-z]{2,4}\$)')	
Prescription_Date	Date	Y				Date of the prescription
Drug_Name	VARCHAR2(100)	Y				Prescribed Drug Name
Num_Of_Refills	NUMBER(3)	Y			Number_Of_Refills >= 0	# of Refills on the prescription
Num_Of_Orders	NUMBER(3)	Y			Number_Of_Orders <= (Number_Of_Refills + 1)	How many times did the prescription be ordered. # of Refills = 0 means can order at most 1 time
Doctor_Name	VARCHAR2(60)	Y				Doctor's full name
Doctor_CPSO	VARCHAR2(8)	Y				Doctor's CPSO Number
Doctor_Address	VARCHAR2(100)	Y				
Doctor_Phone	VARCHAR2(20)	Y				

Oracle SQL Developer - COMP123

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Connections

- ACCTBONUS
- ACCTMANAGER
- ACCTMANAGER
- AUTHOR
- CATEGORY
- CONTACTS
- CUSTOMERS
- DD
- DEPARTMENT
- EMPLOYEE
- EMPLOYEES
- INVENTORY
- JL_EMPS
- JOB_HISTORY
- ORDERITEMS
- ORDERS
- PROMOTION
- PUBLISHER
- PUBLISHER2

Welcome Page - COMP123

Worksheet | Query Builder

```

    Num_Refills NUMBER(3) NOT NULL ENABLE,
    Num_Orders NUMBER(3) NOT NULL ENABLE,
    Doctor_Name VARCHAR2(60) NOT NULL ENABLE,
    Doctor_CPSO VARCHAR2(10) NOT NULL ENABLE,
    Doctor_Address VARCHAR2(100) NOT NULL ENABLE,
    Doctor_Phone VARCHAR2(20) NOT NULL ENABLE,
    CONSTRAINT pres_Prescription_ID_PK PRIMARY KEY (Prescription_ID),
    CONSTRAINT pres_Customer_ID_FK FOREIGN KEY (Customer_ID) REFERENCES gpnrx_customers (Customer_ID),
    CONSTRAINT pres_Patient_Email_CHK CHECK (Patient_Email, '^([A-Za-z0-9-_#+-]+@[A-Za-z0-9.-]+\.[A-Za-z]{2,4}$)'),
    CONSTRAINT pres_Num_Refills_CHK CHECK (Num_Refills >= 0),
    CONSTRAINT pres_Num_Orders_CHK CHECK (Num_Orders <= (Num_Refills + 1))
;
```

Script Output

Table GPNR_CUSTOMERS created.

Error starting at line : 33 in command -

)

Error report -

Unknown Command

Table GPNR_PRESCRIPTIONS created.

Messages - Log

Click on an identifier with the Control key down to perform 'Go to Declaration'.

Columns | Data | Model | Constraints | Grants | Statistics | Triggers | Flashback | Dependencies | Partitions | Indexes | SQL

Actions...

COLUMN_NAME	DATA_TYPE	NULLABLE	DATA_DEFAULT	COLUMN_ID	COMMENTS	
1 PRESCRIPTION_ID	NUMBER(8,0)	No	(null)	1	(null)	
2 CUSTOMER_ID	NUMBER(8,0)	Yes	(null)	2	(null)	
3 PATIENT_NAME	VARCHAR2(60 BYTE)	No	(null)	3	(null)	
4 PATIENT_DOB	DATE	No	(null)	4	(null)	
5 PATIENT_ADDRESS	VARCHAR2(100 BYTE)	Yes	(null)	5	(null)	
6 PATIENT_PHONE	VARCHAR2(20 BYTE)	Yes	(null)	6	(null)	
7 PATIENT_EMAIL	VARCHAR2(50 BYTE)	Yes	(null)	7	(null)	
8 PRESCRIPTION_DATE	DATE	No	(null)	8	(null)	
9 DRUG_NAME	VARCHAR2(100 BYTE)	No	(null)	9	(null)	
10 NUM_OF_REFILLS	NUMBER(3,0)	No	(null)	10	(null)	
11 NUM_OF_ORDERS	NUMBER(3,0)	No	(null)	11	(null)	
12 DOCTOR_NAME	VARCHAR2(60 BYTE)	No	(null)	12	(null)	
13 DOCTOR_CPSO	VARCHAR2(8 BYTE)	No	(null)	13	(null)	
14 DOCTOR_ADDRESS	VARCHAR2(100 BYTE)	No	(null)	14	(null)	
15 DOCTOR_PHONE	VARCHAR2(20 BYTE)	No	(null)	15	(null)	
CONSTRAINT_NAME	CONSTRAINT_TYPE	SEARCH_CONDITION	R_OWNER	R_TABLE_NAME	R_CONSTRAINT_NAME	DELETE_RULE
1 PRES_CUSTOMER_ID_FK	Foreign_Key	(null)	COMP122_W23_NI_7	GPNR_CUSTOMERS	CUSTOMERS_CUSTOMER_ID_PK	NO ACTION
2 PRES_NUM_OF_ORDERS_CHK	Check	Num_Orders <= (Num_Refills + 1)	(null)	(null)	(null)	
3 PRES_NUM_OF_REFILLS_CHK	Check	Num_Refills >= 0	(null)	(null)	(null)	
4 PRES_Patient_Email_CHK	Check	REGEXP_LIKE (Patient_Email, '^([A-Za-z0-9-_#+-]+@[A-Za-z0-9.-]+\.[A-Za-z]{2,4}\$)')	(null)	(null)	(null)	
5 PRES_Prescription_ID_PK	Primary_Key	(null)	(null)	(null)	(null)	
6 SYS_C001686942	Check	"PRESCRIPTION_ID" IS NOT NULL	(null)	(null)	(null)	
7 SYS_C001686943	Check	"PATIENT_NAME" IS NOT NULL	(null)	(null)	(null)	
8 SYS_C001686944	Check	"PATIENT_DOB" IS NOT NULL	(null)	(null)	(null)	
9 SYS_C001686945	Check	"PRESCRIPTION_DATE" IS NOT NULL	(null)	(null)	(null)	
10 SYS_C001686946	Check	"DRUG_NAME" IS NOT NULL	(null)	(null)	(null)	
11 SYS_C001686947	Check	"NUM_OF_REFILLS" IS NOT NULL	(null)	(null)	(null)	
12 SYS_C001686948	Check	"NUM_OF_ORDERS" IS NOT NULL	(null)	(null)	(null)	
13 SYS_C001686949	Check	"DOCTOR_NAME" IS NOT NULL	(null)	(null)	(null)	
14 SYS_C001686950	Check	"DOCTOR_CPSO" IS NOT NULL	(null)	(null)	(null)	
15 SYS_C001686951	Check	"DOCTOR_ADDRESS" IS NOT NULL	(null)	(null)	(null)	
16 SYS_C001686952	Check	"DOCTOR_PHONE" IS NOT NULL	(null)	(null)	(null)	

gpn_r_drugs					Descriptions	
Fieldname	Type	NOT NULL	Primary Key	DEFAULT	Other Constraints	
Drug_ID	NUMBER(8)	Y	Y			Unique drug ID in the system
Is_Prescription_Required	NUMBER(1)	Y			Is_Prescription_Required IN (0, 1)	0 - Over the counter, no prescription needed 1 - Prescription Drugs, must need prescription to purchase
Manufacturer	VARCHAR2(20)	Y				
Drug_Name	VARCHAR2(20)	Y				
Num_Of_Tablets	NUMBER(4)	Y				Number of tablets in a single unit (or bottle) of drug
Drug_Description	VARCHAR2(100)					Description of the drug
Retail_Price	NUMBER(8, 2)	Y			Retail_Price > 0	Original Price of the product
Promotion_Amount	NUMBER(8, 2)	Y			Promotion_Amount >= 0 AND Promotion < Retail_Price	To indicate how much discount is gonna offer to all customers (e.g. Retail Price = 2000, Promotion = 500, then the actual price is \$1500)

```

CREATE TABLE gpn_r_drugs (
    Drug_ID NUMBER(8) NOT NULL ENABLE,
    Is_Prescription_Required NUMBER(1) NOT NULL ENABLE,
    Manufacturer VARCHAR2(20) NOT NULL ENABLE,
    Drug_Name VARCHAR2(20) NOT NULL ENABLE,
    Num_Of_Tablets NUMBER(4) NOT NULL ENABLE,
    Drug_Description VARCHAR2(100),
    Retail_Price NUMBER(8,2) NOT NULL ENABLE,
    Promotion_Amount NUMBER(8,2) NOT NULL ENABLE,
    CONSTRAINT DRUG_ID_PK PRIMARY KEY (Drug_ID),
    CONSTRAINT drugs_px_ck CHECK (Is_Prescription_Required IN (0, 1)),
    CONSTRAINT drugs_rp_ck CHECK (Retail_Price > 0),
    CONSTRAINT drugs_pa_ck CHECK (Promotion_Amount >= 0 AND Promotion_Amount < Retail_Price)
);

```

Table GPN_R_DRUGS created.

Columns | Data | Model | Constraints | Grants | Statistics | Triggers | Flashback | Dependencies | Details | Partitions | Indexes | SQL

Actions...	COLUMN_NAME	DATA_TYPE	NULLABLE	DATA_DEFAULT	COLUMN_ID	COMMENTS
	DRUG_ID	NUMBER(8,0)	No	(null)	1 (null)	
	IS_PRESCRIPTION_REQUIRED	NUMBER(1,0)	No	(null)	2 (null)	
	MANUFACTURER	VARCHAR2(20 BYTE)	No	(null)	3 (null)	
	DRUG_NAME	VARCHAR2(20 BYTE)	No	(null)	4 (null)	
	NUM_OF_TABLETS	NUMBER(4,0)	No	(null)	5 (null)	
	DRUG_DESCRIPTION	VARCHAR2(100 BYTE)	Yes	(null)	6 (null)	
	Retail_Price	NUMBER(8,2)	No	(null)	7 (null)	
	Promotion_Amount	NUMBER(8,2)	No	(null)	8 (null)	

CONSTRAINT_NAME	CONSTRAINT_TYPE	SEARCH_CONDITION	R_OWNER	R_TABLE_NAME	R_CONSTRAINT_NAME	DELETE_RULE
DRUGS_DRUG_ID_PK	Primary_Key	(null)	(null)	(null)	(null)	E
DRUGS_PA_CK	Check	Promotion_Amount >= 0 AND Promotion_Amount < Retail_Price	(null)	(null)	(null)	E
DRUGS_PR_CK	Check	Is_Prescription_Required IN (0, 1)	(null)	(null)	(null)	E
DRUGS_RP_CK	Check	Retail_Price > 0	(null)	(null)	(null)	E
SYS_C001686958	Check	"DRUG_ID" IS NOT NULL	(null)	(null)	(null)	E
SYS_C001686959	Check	"IS_PRESCRIPTION_REQUIRED" IS NOT NULL	(null)	(null)	(null)	E
SYS_C001686960	Check	"MANUFACTURER" IS NOT NULL	(null)	(null)	(null)	E
SYS_C001686961	Check	"DRUG_NAME" IS NOT NULL	(null)	(null)	(null)	E
SYS_C001686962	Check	"NUM_OF_TABLETS" IS NOT NULL	(null)	(null)	(null)	E
SYS_C001686963	Check	"RETAIL_PRICE" IS NOT NULL	(null)	(null)	(null)	E
SYS_C001686964	Check	"PROMOTION_AMOUNT" IS NOT NULL	(null)	(null)	(null)	E

gpn_orders					Other Constraints		Descriptions
Fieldname	Type	NOT NULL	Primary Key	DEFAULT			
Order_ID	NUMBER(8)	Y	Y	SYSDATE			
Order_Date	Date	Y			Shipping_Date >= Order_Date AND ((Shipping_Date IS NULL AND Shipping_Status IN (0, 1)) OR (Shipping_Date IS NOT NULL AND Shipping_Status IN (2, 3)))		The date shipment is launched
Shipping_Address	VARCHAR2(100)	Y					
Shipping_Status	NUMBER(1)	Y		0	Shipping_Status IN (0, 1, 2, 3)		0 - Pending, wait for processing 1 - Package done, pending to ship 2 - Shipped 3 - Delivered (customer received the order)

```

CREATE TABLE gpn_orders (
    ORDER_ID NUMBER(8,0) PRIMARY KEY NOT NULL,
    ORDER_DATE DATE DEFAULT SYSDATE NOT NULL ENABLE,
    SHIPPING_STATUS NUMBER(1) CHECK (Shipping_Status IN (0, 1, 2, 3))
);

CONSTRAINT gpk_order_id_pk
    PRIMARY KEY ORDER_ID;

CONSTRAINT ck_order_date_ck
    CHECK (ORDER_DATE >= SYSDATE);

CONSTRAINT ck_shipping_status_ck
    CHECK (SHIPPING_STATUS IN (0, 1, 2, 3));

```

Table GPN_ORDERS created.

COLUMN_NAME	DATA_TYPE	NULLABLE	DATA_DEF...	COLUMN_ID	COMMENTS
1 ORDER_ID	NUMBER(8,0)	No	(null)	1	(null)
2 ORDER_DATE	DATE	No	SYSDATE	2	(null)
3 SHIPPING_DATE	DATE	Yes	(null)	3	(null)
4 SHIPPING_ADDRESS	VARCHAR2(100 BYTE)	No	(null)	4	(null)
5 SHIPPING_STATUS	NUMBER(1,0)	No	0	5	(null)

CONSTRAINT_NAME	CONSTRAINT_TYPE	SEARCH_CONDITION
1 ORDERS_ORDER_ID_PK	Primary_Key	(null)
2 ORDERS_SHIPPING_DATE_CK	Check	Shipping_Date >= Order_Date AND ((Shipping_Date IS NULL AND Shipping_Status IN (0, 1)) OR (Shipping_Date IS NOT NULL AND Shipping_Status IN (2, 3)))
3 ORDERS_SHIPPING_STATUS_CK	Check	Shipping_Status IN (0, 1, 2, 3)
4 SYS_C001686972	Check	"SHIPPING_STATUS" IS NOT NULL
5 SYS_C001686970	Check	"ORDER_DATE" IS NOT NULL
6 SYS_C001686971	Check	"SHIPPING_ADDRESS" IS NOT NULL
7 SYS_C001686969	Check	"ORDER_ID" IS NOT NULL

gpn_carts					Other Constraints		Descriptions
Fieldname	Type	NOT NULL	Primary Key	DEFAULT			
Cart_Num	NUMBER(8)	Y	Y				A globally unique cart number
Customer_ID	NUMBER(8)	Y			Foreign key of gpn_customers on Customer_ID		
Order_Status	NUMBER(1)	Y		DEFAULT 0	Order_Status IN (0, 1, 2, 9)		0 - Pending Submit (Just added to the cart and customer has not yet decided to buy) 1 - Submitted and Payment Completed, Pending manual validation on prescription drugs 2 - Validation completed / Checked-Out (Auto complete for over-the-counter drugs), orders will be created when all items in the same cart are in this states 9 - Order rejected due to no / invalid prescriptions
Order_ID	NUMBER(8)			NULL	Foreign key of gpn_orders on Order_ID Order_ID IS NULL OR Order_Status = 2		It is NULL when the cart is created This field is updated to a valid order ID when check-out success (i.e. Order_Status = 2)

Oracle SQL Developer COMP122

Instances Page: comp122 - GPNR_CUSTOMERS

Universal - Every Table

```

CREATE TABLE gpnr_carts (
    Cart_Num NUMBER(8,0) NOT NULL ENABLE,
    Customer_ID NUMBER(8,0) NOT NULL ENABLE,
    Order_Status NUMBER(1,0) DEFAULT 0 NOT NULL ENABLE,
    Order_ID NUMBER(8,0) DEFAULT NULL,
    CONSTRAINT carts_Cart_Num_FK FOREIGN KEY (Cart_Num) REFERENCES gpnr_customers (Customer_ID),
    CONSTRAINT carts_Order_Status_ck CHECK (Order_Status IN (0, 1, 2, 9)),
    CONSTRAINT carts_Order_Id_fk FOREIGN KEY (Order_ID) REFERENCES gpnr_orders (Order_ID),
    CONSTRAINT carts_Order_Id_ck CHECK (Order_ID IS NULL OR Order_Status = 2)
);

```

Script Output:

```

Table GPNR_CARTS created.

```

Welcome Page × Untitled4.sql × Tony × Group Project (122) (1).sql × GPNR_CARTS ×

Columns | Data | Model | Constraints | Grants | Statistics | Triggers | Flashback | Dependencies | Details | Partitions | Indexes |

Actions...

Column Name	Data Type	Nullable	Data Default	Column ID	Comments
1 CART_NUM	NUMBER(8,0)	No	(null)	1 (null)	
2 CUSTOMER_ID	NUMBER(8,0)	No	(null)	2 (null)	
3 ORDER_STATUS	NUMBER(1,0)	No	0	3 (null)	
4 ORDER_ID	NUMBER(8,0)	Yes	NULL	4 (null)	

Constraint Name	Constraint Type	Search Condition	R_Owner	R_Table_Name	R_Constraint_Name	Delete Rule
1 CARTS_CART_NUM_PK	Primary Key	(null)	(null)	(null)	(null)	I
2 CARTS_CUSTOMER_ID_FK	Foreign Key	(null)	COMP122_W23_NI_7	GPNR_CUSTOMERS	CUSTOMERS_CUSTOMER_ID_PK NO ACTION	I
3 CARTS_ORDER_ID_CK	Check	Order_ID IS NULL OR Order_Status = 2	(null)	(null)	(null)	I
4 CARTS_ORDER_ID_FK	Foreign Key	(null)	COMP122_W23_NI_7	GPNR_ORDERS	ORDERS_ORDER_ID_PK NO ACTION	I
5 CARTS_ORDER_STATUS_CK	Check	Order_Status IN (0, 1, 2, 9)	(null)	(null)	(null)	I
6 SYS_C001686976	Check	"CART_NUM" IS NOT NULL	(null)	(null)	(null)	I
7 SYS_C001686977	Check	"CUSTOMER_ID" IS NOT NULL	(null)	(null)	(null)	I
8 SYS_C001686978	Check	"ORDER_STATUS" IS NOT NULL	(null)	(null)	(null)	I

gpnr_cart_items						
Fieldname	Type	NOT NULL	Primary Key	DEFAULT	Other Constraints	Descriptions
Cart_Num	NUMBER(8)	Y	Y		Foreign key of gpnr_carts on Cart_Num	Combined with Drug_ID to form primary key
Drug_ID	VARCHAR2(8)	Y	Y		Foreign key of gpnr_drugs on Drug_ID	Combined with Cart_Num to form primary key
Prescription_ID	NUMBER(8)				Foreign key of gpnr_prescriptions on Prescription_ID	It is NULL for non-prescription drugs (i.e. over the counter)
Unit_Price	NUMBER(8, 2)	Y				It stores corresponding prescription ID which customer selected
Quantity	NUMBER(3)	Y				The actual sales price per item, i.e. Retail price - Promotion_Amount
Item_Price	NUMBER(8, 2)	Y				Virtual column AS (Unit_Price * Quantity)

Oracle SQL Developer COMP122

Instances Page: comp122 - GPNR_CUSTOMERS

Universal - Every Table

```

CREATE TABLE gpnr_cart_items (
    Drug_ID NUMBER(8) NOT NULL ENABLE,
    Prescription_ID NUMBER(8),
    Unit_Price NUMBER(8, 2) NOT NULL ENABLE,
    Quantity NUMBER(3) NOT NULL ENABLE,
    Item_Price AS (Unit_Price * Quantity) NOT NULL ENABLE,
    CONSTRAINT carts_Cart_Num_FK FOREIGN KEY (Cart_Num) REFERENCES gpnr_carts (Cart_Num),
    CONSTRAINT carts_Cart_Num_FK FOREIGN KEY (Cart_Num) REFERENCES gpnr_carts (Cart_Num),
    CONSTRAINT carts_Drug_Id_FK FOREIGN KEY (Drug_ID) REFERENCES gpnr_drugs (Drug_ID),
    CONSTRAINT carts_Prescription_Id_FK FOREIGN KEY (Prescription_ID) REFERENCES gpnr_prescriptions (Prescription_ID)
);

```

Script Output:

```

Table GPNR_CART_ITEMS created.

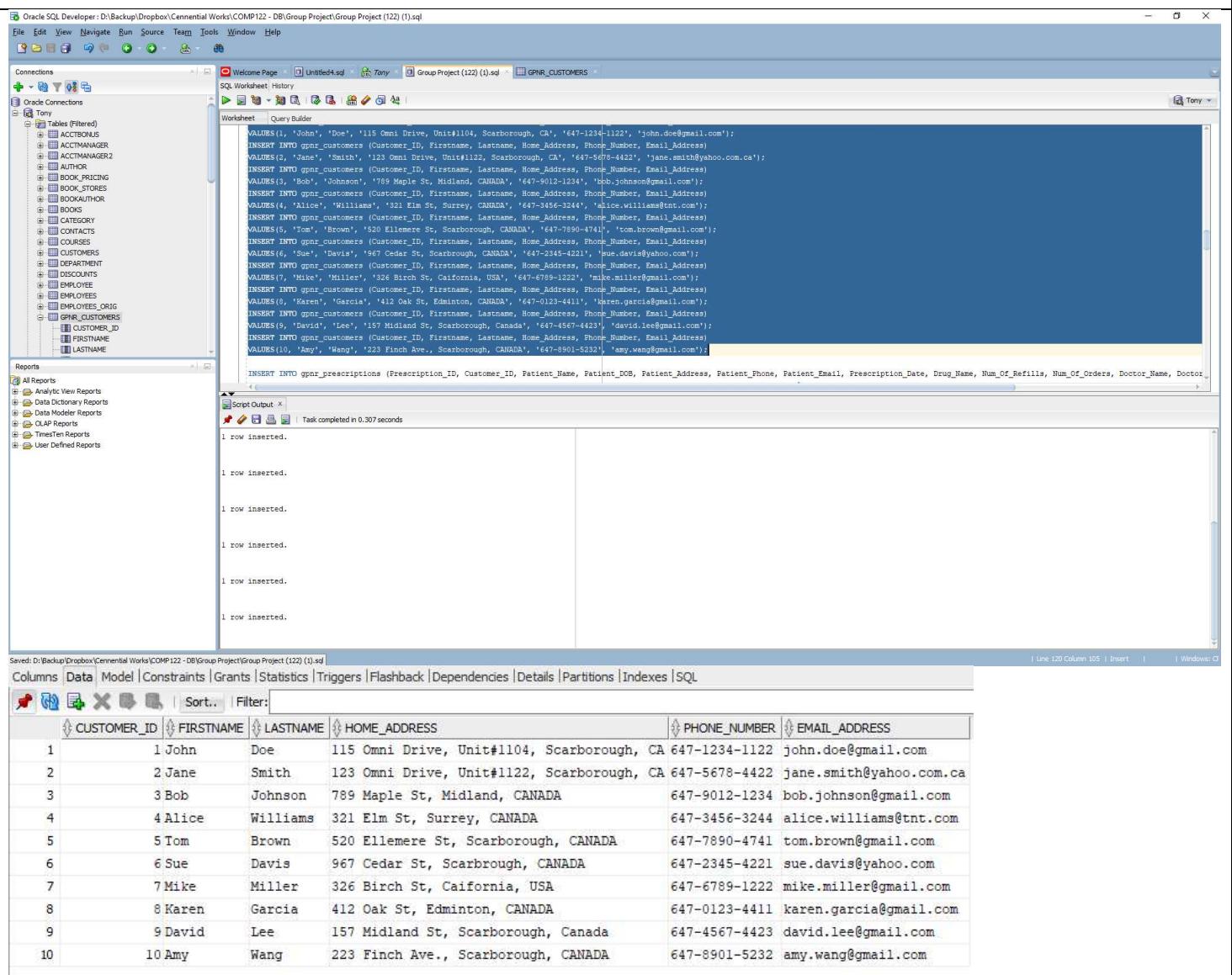
```

<code>COLUMN_NAME</code>	<code>DATA_TYPE</code>	<code>NULLABLE</code>	<code>DATA_DEFAULT</code>	<code>COLUMN_ID</code>	<code>COMMENTS</code>
1 CART_NUM	NUMBER(8,0)	No	(null)	1	(null)
2 DRUG_ID	NUMBER(8,0)	No	(null)	2	(null)
3 PRESCRIPTI...	NUMBER(8,0)	Yes	(null)	3	(null)
4 UNIT_PRICE	NUMBER(8,2)	No	(null)	4	(null)
5 QUANTITY	NUMBER(3,0)	No	(null)	5	(null)
6 ITEM_PRICE	NUMBER	No	"UNIT_PRICE" * "QUANTITY"	6	(null)

<code>CONSTRAINT_NAME</code>	<code>CONSTRAINT_TYPE</code>	<code>SEARCH_CONDITION</code>	<code>R_OWNER</code>	<code>R_TABLE_NAME</code>	<code>R_CONSTRAINT_NAME</code>	<code>DELETE_R...</code>
1 CARTS_CART_NUM_FK	Foreign_Key	(null)	COMP122_W23_NI_7	GPNR_CARTS	CARTS_CART_NUM_PK	NO ACTION E
2 CARTS_DRUG_ID_FK	Foreign_Key	(null)	COMP122_W23_NI_7	GPNR_DRUGS	DRUGS_DRUG_ID_PK	NO ACTION E
3 CARTS_PRESCRIPTION_ID_FK	Foreign_Key	(null)	COMP122_W23_NI_7	GPNR_PRESCRIPTIONS	PRES_PRESCRIPTION_ID_PK	NO ACTION E
4 SYS_C001686986	Check	"UNIT_PRICE" IS NOT NULL	(null)	(null)	(null)	(null) E
5 SYS_C001686987	Check	"QUANTITY" IS NOT NULL	(null)	(null)	(null)	(null) E
6 SYS_C001686985	Check	"DRUG_ID" IS NOT NULL	(null)	(null)	(null)	(null) E
7 SYS_C001686988	Check	"ITEM_PRICE" IS NOT NULL	(null)	(null)	(null)	(null) E
8 CARTS_CART_NUM_DRUG_ID_PK	Primary_Key	(null)	(null)	(null)	(null)	(null) E
9 SYS_C001686984	Check	"CART_NUM" IS NOT NULL	(null)	(null)	(null)	(null) E

Insert Records

Insert into gpn_r_customers



The screenshot shows the Oracle SQL Developer interface with the 'gpn_r_customers' table selected in the 'Tables (Filtered)' section of the Connections tree. The 'Script Output' pane displays the SQL code used to insert 10 rows of data into the table. The 'Results' pane shows the 10 rows inserted successfully.

```

VALUES(1, 'John', 'Doe', '115 Omni Drive, Unit#1104, Scarborough, CA', '647-1234-1122', 'john.doe@gmail.com');
INSERT INTO gpn_r_customers (Customer_ID, Firstname, Lastname, Home_Address, Phone_Number, Email_Address);
VALUES(2, 'Jane', 'Smith', '123 Omni Drive, Unit#1122, Scarborough, CA', '647-5678-4422', 'jane.smith@yahoo.com.ca');
INSERT INTO gpn_r_customers (Customer_ID, Firstname, Lastname, Home_Address, Phone_Number, Email_Address);
VALUES(3, 'Bob', 'Johnson', '789 Maple St, Midland, CANADA', '647-9012-1234', 'bob.johnson@gmail.com');
INSERT INTO gpn_r_customers (Customer_ID, Firstname, Lastname, Home_Address, Phone_Number, Email_Address);
VALUES(4, 'Alice', 'Williams', '321 Elm St, Surrey, CANADA', '647-3456-3244', 'alice.williams@tnt.com');
INSERT INTO gpn_r_customers (Customer_ID, Firstname, Lastname, Home_Address, Phone_Number, Email_Address);
VALUES(5, 'Tom', 'Brown', '520 Ellemere St, Scarborough, CANADA', '647-7890-4741', 'tom.brown@gmail.com');
INSERT INTO gpn_r_customers (Customer_ID, Firstname, Lastname, Home_Address, Phone_Number, Email_Address);
VALUES(6, 'Sue', 'Davis', '967 Cedar St, Scarborough, CANADA', '647-2345-4221', 'sue.davis@yahoo.com');
INSERT INTO gpn_r_customers (Customer_ID, Firstname, Lastname, Home_Address, Phone_Number, Email_Address);
VALUES(7, 'Mike', 'Miller', '326 Birch St, California, USA', '647-6789-1222', 'mike.miller@gmail.com');
INSERT INTO gpn_r_customers (Customer_ID, Firstname, Lastname, Home_Address, Phone_Number, Email_Address);
VALUES(8, 'Karen', 'Garcia', '412 Oak St, Edmonton, CANADA', '647-0123-4411', 'karen.garcia@gmail.com');
INSERT INTO gpn_r_customers (Customer_ID, Firstname, Lastname, Home_Address, Phone_Number, Email_Address);
VALUES(9, 'David', 'Lee', '157 Midland St, Scarborough, Canada', '647-4567-4423', 'david.lee@gmail.com');
INSERT INTO gpn_r_customers (Customer_ID, Firstname, Lastname, Home_Address, Phone_Number, Email_Address);
VALUES(10, 'Amy', 'Wang', '223 Finch Ave., Scarborough, CANADA', '647-8901-5232', 'amy.wang@gmail.com');

INSERT INTO gpn_r_prescriptions (Prescription_ID, Customer_ID, Patient_Name, Patient_DOB, Patient_Address, Patient_Phone, Patient_Email, Prescription_Date, Drug_Name, Num_Of_Refills, Num_Of_Orders, Doctor_Name, Doctor_Phone);
4

```

1 row inserted.
 1 row inserted.

Insert into gpn_r_prescriptions

Oracle SQL Developer

File Edit View Navigate Run Team Tools Window Help

Connections

COMP122

Worksheet Query Builder

```

VALUES(1, 'Amy', 'Wang', '223 Finch Ave., Scarborough, CANADA', '647-9901-5222', 'amy.wang@gmail.com');

INSERT INTO gpn_prescriptions (Prescription_ID, Customer_ID, Patient_Name, Patient_DOB, Patient_Address, Patient_Phone, Patient_Email, Prescription_Date, Drug_Name, Num_Of_Refills, Num_Of_Orders, Doctor_Name, Doctor_CPSO, D
VALUES(1, 1, 'Jane Doe', TO_DATE('1990-05-01', 'YYYY-MM-DD'), '115 Omni Drive, Scarborough, CA', '647-1234-1122', 'jane.doe@gmail.com', SYSDATE, 'Crestor', 3, 2, 'Dr. Ellen', 123456789, '647 Kennedy Road, Unit#305, Scarbo
INSERT INTO gpn_prescriptions (Prescription_ID, Customer_ID, Patient_Name, Patient_DOB, Patient_Address, Patient_Phone, Patient_Email, Prescription_Date, Drug_Name, Num_Of_Refills, Num_Of_Orders, Doctor_Name, Doctor_CPSO, D
VALUES(2, 2, 'Jane Smith', TO_DATE('1985-10-15', 'YYYY-MM-DD'), '123 Omni Drive, Scarborough, CA', '647-5678-4422', 'jane.smith@yahoo.com.ca', SYSDATE, 'Ritalin', 2, 1, 'Dr. Johnson', 976543211, '647 Kennedy Road, Unit#303, Scarbo
INSERT INTO gpn_prescriptions (Prescription_ID, Customer_ID, Patient_Name, Patient_DOB, Patient_Address, Patient_Phone, Patient_Email, Prescription_Date, Drug_Name, Num_Of_Refills, Num_Of_Orders, Doctor_Name, Doctor_CPSO, D
VALUES(3, 3, 'Bob Johnson', TO_DATE('1965-12-21', 'YYYY-MM-DD'), '789 Maple St, Midland, CANADA', '647-9012-1234', 'bob.johnson@gmail.com', SYSDATE, 'Viagra', 1, 0, 'Dr. Lee', 19283746, '987 Cedar St, Cedarwood, CANADA', '647
INSERT INTO gpn_prescriptions (Prescription_ID, Customer_ID, Patient_Name, Patient_DOB, Patient_Address, Patient_Phone, Patient_Email, Prescription_Date, Drug_Name, Num_Of_Refills, Num_Of_Orders, Doctor_Name, Doctor_CPSO, D
VALUES(4, 4, 'Solomon', TO_DATE('1995-12-21', 'YYYY-MM-DD'), '321 Elm St, Surrey, CANADA', '647-3456-7221', 'so.lomon@gmail.com', SYSDATE, 'Propecia', 2, 1, 'Dr. Brown', 23456789, '456 Pharmacy drive, Surrey, CANADA', '647
INSERT INTO gpn_prescriptions (Prescription_ID, Customer_ID, Patient_Name, Patient_DOB, Patient_Address, Patient_Phone, Patient_Email, Prescription_Date, Drug_Name, Num_Of_Refills, Num_Of_Orders, Doctor_Name, Doctor_CPSO, D
VALUES(5, 5, 'Tom Brown', TO_DATE('2000-01-01', 'YYYY-MM-DD'), '520 Ellemere St, Scarborough, CANADA', '647-7890-4741', 'tom.brown@gmail.com', SYSDATE, 'Crestor', 0, 0, 'Dr. Davis', 65432198, '643 Ellemere St, Unit#201, Sc
INSERT INTO gpn_prescriptions (Prescription_ID, Customer_ID, Patient_Name, Patient_DOB, Patient_Address, Patient_Phone, Patient_Email, Prescription_Date, Drug_Name, Num_Of_Refills, Num_Of_Orders, Doctor_Name, Doctor_CPSO, D
VALUES(6, 6, 'David Leo', TO_DATE('1990-08-01', 'YYYY-MM-DD'), '157 Midland St, Scarborough, CANADA', '647-5678-7522', 'david.leo@yahoo.com.ca', SYSDATE, 'Myrbetriq', 1, 0, 'Dr. Williams Dickson', 91827364, '789 Oak St, Markham, CANADA', '647-555-9012
VALUES(7, 7, 'Mike Miller', TO_DATE('1995-06-01', 'YYYY-MM-DD'), '326 Birch St, California, USA', '647-6789-1222', 'mike.miller@gmail.com', SYSDATE, 'Myrbetriq', 0, 0, 'Dr. Garcia Leung', 56789123, '321 Elm St, California, USA', '647-505-2345
VALUES(8, 8, 'Lewis Don', TO_DATE('1995-07-01', 'YYYY-MM-DD'), '413 Oak St, Downtown, CANADA', '647-0123-5511', 'don.lewis@gmail.com', SYSDATE, 'Crestor', 3, 2, 'Dr. Sharma Wang', 12345678, '789 Yonge St, Downtown, CANADA', '647-355-5678
VALUES(9, 9, 'David Lee', TO_DATE('1995-08-01', 'YYYY-MM-DD'), '157 Midland St, Scarborough, Canada', '647-4567-4423', 'david.lee@gmail.com', SYSDATE, 'Ritalin', 3, 2, 'Dr. Ian Dickson', 12345678, '456 Finch Ave., Scarborough, CANADA', '647-984-5678
VALUES(10, 10, 'Simon Johnson', TO_DATE('1995-09-01', 'YYYY-MM-DD'), '223 Finch Ave., Scarborough, CANADA', '647-4567-7521', 'johnson.simon@gmail.com', SYSDATE, 'Myrbetriq', 0, 0, 'Dr. Wayne Henrys', 12345678, '441 Silver Street, Markham, CANADA', '647-374-5176

Script Output
Task completed in 0.325 seconds
```

Messages Log Click on an identifier with the Control key down to perform "Go to Declaration"

PRESCRIPTION_ID	CUSTOMER_ID	PATIENT_NAME	DRUG_NAME	NUM_OF_REFILLS	NUM_OF_ORDERS	PATIENT_DOB	PATIENT_ADDRESS	PATIENT_PHONE	PATIENT_EMAIL
1	1	Jane Doe	Crestor	3	2	01-MAY-90	115 Omni Drive, Scarborough, CA	647-1234-1122	jane.doe@gmail.com
2	2	Jane Smith	Ritalin	2	1	15-OCT-85	123 Omni Drive, Scarborough, CA	647-5678-4422	jane.smith@yahoo.com.ca
3	3	Bob Johnson	Viagra	1	0	25-MAR-78	789 Maple St, Midland, CANADA	647-9012-1234	bob.johnson@gmail.com
4	4	Solomon	Propecia	2	1	31-DEC-95	321 Elm St, Surrey, CANADA	647-3456-7221	so.lomon@gmail.com
5	5	Tom Brown	Crestor	0	0	01-JAN-00	520 Ellemere St, Scarborough, CANADA	647-7890-4741	tom.brown@gmail.com
6	6	David Leo	Myrbetriq	1	0	05-AUG-80	967 Cedar St, Scarborough, CANADA	647-5678-7522	david.leo@yahoo.com.ca
7	7	Mike Miller	Myrbetriq	0	0	10-JUN-75	326 Birch St, California, USA	647-6789-1222	mike.miller@gmail.com
8	8	Lewis Don	Crestor	3	2	11-MAY-00	413 Oak St, Downtown, CANADA	647-0123-5511	don.lewis@gmail.com
9	9	David Lee	Ritalin	3	2	15-OCT-03	157 Midland St, Scarborough, Canada	647-4567-4423	david.lee@gmail.com
10	10	Simon Johnson	Myrbetriq	0	0	10-SEP-95	223 Finch Ave., Scarborough, CANADA	647-4567-7521	johnson.simon@gmail.com

PRESCRIPTION_DATE	DOCTOR_NAME	DOCTOR_CPSO	DOCTOR_ADDRESS	DOCTOR_PHONE
03-APR-23	Dr. Ellen	12345678	647 Kennedy Road, Unit#305, Scarborough, CA	647-383-5451
03-APR-23	Dr. Johnson	87654321	647 Kennedy Road, Unit#303, Scarborough, CA	647-382-5411
03-APR-23	Dr. Lee	19283746	987 Cedar St, Cedarwood, CANADA	647-344-6299
03-APR-23	Dr. Brown	23456789	456 Pharmacy drive, Surrey, CANADA	647-555-8901
03-APR-23	Dr. Davis	65432198	643 Ellemere St, Unit#201, Scarborough, CA	555-4567
03-APR-23	Dr. Williams Dickson	91827364	789 Oak St, Unit#101, Markham, CANADA	647-555-9012
03-APR-23	Dr. Garcia Leung	56789123	321 Elm St, California, USA	647-505-2345
03-APR-23	Dr. Sharma Wang	12345678	789 Yonge St, Downtown, CANADA	647-355-5678
03-APR-23	Dr. Ian Dickson	12345678	456 Finch Ave., Unit#405, Scarborough, CANADA	647-984-5678
03-APR-23	Dr. Wayne Henrys	12345678	441 Silver Street, Markham, CANADA	647-374-5176

Insert into gpn_drugs

The screenshot shows the Oracle SQL Developer interface. The top menu bar includes File, Edit, View, Navigate, Run, Source, Team, Tools, Window, Help. The left sidebar displays the 'Connections' tree, which includes 'Oracle Connections' and 'Tables (Filtered)'. Under 'Tables (Filtered)', there are many tables listed under the 'GPNR_PREScriptions' schema, such as PRESCRIPTIONID, CUSTOMERID, PATIENTID, PATIENTDOB, PATIENTADDRESS, PATIENTPHONE, PRESCRIPTIONDATE, DRUGNAME, NUMOFRFILLS, NUMOFOORDERS, DOCTORNAME, DOCTORCPSD, DOCTORADORESS, DOCTORPHONE, INSTRUCTOR, LEAVES, JOBCATEGORY, ORDERITEMS, ORDERS, PROMOTION, PUBLISHER, and PUBLISHER2.

The central workspace contains a 'Worksheet' tab with the following SQL script:

```
VALUES(1, 'AstraZeneca', 'Crestor', 90, 'Lowers cholesterol', 200.00, 0);
INSERT INTO gpnr_drugs (Drug_ID, Is_Prescription_Required, Manufacturer, Drug_Name, Num_Of_Tablets, Drug_Description, Retail_Price, Promotion_Amount)
VALUES(1, 0, 'Tylenol', 'Extra Tylenol', 24, 'Pain relief', 10.00, 0);
INSERT INTO gpnr_drugs (Drug_ID, Is_Prescription_Required, Manufacturer, Drug_Name, Num_Of_Tablets, Drug_Description, Retail_Price, Promotion_Amount)
VALUES(2, 0, 'Bayer', 'Aspirin', 100, 'Pain relief', 5.00, 0);
INSERT INTO gpnr_drugs (Drug_ID, Is_Prescription_Required, Manufacturer, Drug_Name, Num_Of_Tablets, Drug_Description, Retail_Price, Promotion_Amount)
VALUES(3, 1, 'Novartis', 'Ritalin', 60, 'Treats ADHD', 50.00, 0);
INSERT INTO gpnr_drugs (Drug_ID, Is_Prescription_Required, Manufacturer, Drug_Name, Num_Of_Tablets, Drug_Description, Retail_Price, Promotion_Amount)
VALUES(4, 0, 'Johnson and Johnson', 'Benadryl', 24, 'Allergy relief', 8.00, 0);
INSERT INTO gpnr_drugs (Drug_ID, Is_Prescription_Required, Manufacturer, Drug_Name, Num_Of_Tablets, Drug_Description, Retail_Price, Promotion_Amount)
VALUES(5, 1, 'Merck', 'Propecia', 30, 'Treats baldness', 120.00, 20.00);
INSERT INTO gpnr_drugs (Drug_ID, Is_Prescription_Required, Manufacturer, Drug_Name, Num_Of_Tablets, Drug_Description, Retail_Price, Promotion_Amount)
VALUES(6, 0, 'Advil', 'Advil', 50, 'Pain relief', 12.00, 0);
INSERT INTO gpnr_drugs (Drug_ID, Is_Prescription_Required, Manufacturer, Drug_Name, Num_Of_Tablets, Drug_Description, Retail_Price, Promotion_Amount)
VALUES(7, 1, 'Astellas Pharma', 'Myrbetriq', 30, 'Treats overactive bladder', 150.00, 0);
INSERT INTO gpnr_drugs (Drug_ID, Is_Prescription_Required, Manufacturer, Drug_Name, Num_Of_Tablets, Drug_Description, Retail_Price, Promotion_Amount)
VALUES(8, 1, 'Eli Lilly', 'Cialis', 20, 'Treats erectile', 200.00, 25.00);
```

The 'Script Output' pane shows the results of the execution:

- 1 row inserted.

The bottom pane shows the 'Messages - Log' with the message "Click on an identifier with the Control key down to perform 'Go to Declaration'".

A results grid table is displayed at the bottom:

DRUG_ID	IS_PRESCRIPTION_REQUIRED	MANUFACTURER	DRUG_NAME	NUM_OF_TABLETS	DRUG_DESCRIPTION	RETAIL_PRICE	PROMOTION_AMOUNT
1	1	1 Pfizer	Viagra	30	Treats erectile dysfunction	100	10
2	2	1 AstraZeneca	Crestor	90	Lowers cholesterol	200	0
3	3	0 Tylenol	Extra Tylenol	24	Pain relief	10	0
4	4	0 Bayer	Aspirin	100	Pain relief	5	0
5	5	1 Novartis	Ritalin	60	Treats ADHD	50	0
6	6	0 Johnson and Johnson	Benadryl	24	Allergy relief	8	0
7	7	1 Merck	Propecia	30	Treats baldness	120	20
8	8	0 Advil	Advil	50	Pain relief	12	0
9	9	1 Astellas Pharma	Myrbetriq	30	Treats overactive bladder	150	0
10	10	1 Eli Lilly	Cialis	20	Treats erectile	200	25

Insert into gpn_r_orders

The screenshot shows the Oracle SQL Developer interface. The left sidebar displays the database schema with various tables and objects. The main area has a 'Worksheet' tab open, showing a query builder with the following SQL code:

```
VALUES(111, TO_DATE('2023-03-28', 'yyyy-mm-dd'), TO_DATE('2023-04-02', 'yyyy-mm-dd'), '123 Omni Drive, Unit#1122, Scarborough, CA', 2);
INSERT INTO gpn_orders (Order_ID, Order_Date, Shipping_Date, Shipping_Address, Shipping_Status)
VALUES(112, TO_DATE('2023-03-27', 'yyyy-mm-dd'), NULL, '789 Maple St, Midland, CANADA', 0);
INSERT INTO gpn_orders (Order_ID, Order_Date, Shipping_Date, Shipping_Address, Shipping_Status)
VALUES(113, TO_DATE('2023-03-29', 'yyyy-mm-dd'), NULL, '321 Elm St, Surrey, CANADA', 0);
INSERT INTO gpn_orders (Order_ID, Order_Date, Shipping_Date, Shipping_Address, Shipping_Status)
VALUES(114, TO_DATE('2023-03-26', 'yyyy-mm-dd'), TO_DATE('2023-04-01', 'yyyy-mm-dd'), '1231 Pine St, Surrey CANADA', 3);
INSERT INTO gpn_orders (Order_ID, Order_Date, Shipping_Date, Shipping_Address, Shipping_Status)
VALUES(115, TO_DATE('2023-03-23', 'yyyy-mm-dd'), TO_DATE('2023-03-30', 'yyyy-mm-dd'), '550 Ellemere St, Scarborough, CANADA', 2);
INSERT INTO gpn_orders (Order_ID, Order_Date, Shipping_Date, Shipping_Address, Shipping_Status)
VALUES(116, TO_DATE('2023-03-22', 'yyyy-mm-dd'), NULL, '1239 Oak Ave., Toronto, CANADA', 0);
INSERT INTO gpn_orders (Order_ID, Order_Date, Shipping_Date, Shipping_Address, Shipping_Status)
VALUES(117, TO_DATE('2023-03-20', 'yyyy-mm-dd'), TO_DATE('2023-03-28', 'yyyy-mm-dd'), '2021 Maple St, Toronto, CANADA', 3);
INSERT INTO gpn_orders (Order_ID, Order_Date, Shipping_Date, Shipping_Address, Shipping_Status)
VALUES(118, TO_DATE('2023-03-18', 'yyyy-mm-dd'), NULL, '123 Ellemere, Scarborough, CANADA', 1);
INSERT INTO gpn_orders (Order_ID, Order_Date, Shipping_Date, Shipping_Address, Shipping_Status)
VALUES(119, TO_DATE('2023-03-24', 'yyyy-mm-dd'), NULL, '115 Suen Yat Sin Ave., Markham, CANADA', 1);
```

The 'Script Output' pane below shows the results of the execution:

- 1 row inserted.

At the bottom, a message in the 'Messages - Log' pane says: "Click on an identifier with the Control key down to perform 'Go to Declaration'".

	ORDER_ID	ORDER_DATE	SHIPPING_DATE	SHIPPING_ADDRESS	SHIPPING_STATUS
1	110	30-MAR-23	(null)	115 Omni Drive, Unit#1104, Scarborough, CA	1
2	111	28-MAR-23	02-APR-23	123 Omni Drive, Unit#1122, Scarborough, CA	2
3	112	27-MAR-23	(null)	789 Maple St, Midland, CANADA	0
4	113	29-MAR-23	(null)	321 Elm St, Surrey, CANADA	0
5	114	26-MAR-23	01-APR-23	1213 Pine St, Surrey CANADA	3
6	115	23-MAR-23	30-MAR-23	520 Ellemere St, Scarborough, CANADA	2
7	116	22-MAR-23	(null)	1819 Oak Ave., Toronto, CANADA	0
8	117	20-MAR-23	28-MAR-23	2021 Maple St, Toronto, CANADA	3
9	118	18-MAR-23	(null)	6123 Ellsmere, Scarborough, CANADA	1
10	119	24-MAR-23	(null)	719 Suen Yat Sin Ave., Markham, CANADA	1

Insert into gpnrcarts

Oracle SQL Developer : COMP122

File Edit View Navigate Run Source Team Tools Window Help

Connections Oracle Connections COMP122 GPNR.PRESCRIPTIONS

Worksheet Query Builder

```

INSERT INTO gpnrcarts (Cart_Num, Customer_ID, Order_Status, Order_ID)
VALUES(107, 7, 2, 116);
INSERT INTO gpnrcarts (Cart_Num, Customer_ID, Order_Status, Order_ID)
VALUES(108, 9, 2, 117);
INSERT INTO gpnrcarts (Cart_Num, Customer_ID, Order_Status, Order_ID)
VALUES(109, 9, 2, 118);
INSERT INTO gpnrcarts (Cart_Num, Customer_ID, Order_Status, Order_ID)
VALUES(110, 16, 2, 119);
INSERT INTO gpnrcarts (Cart_Num, Customer_ID, Order_Status, Order_ID)
VALUES(111, 1, 1, null);
INSERT INTO gpnrcarts (Cart_Num, Customer_ID, Order_Status, Order_ID)
VALUES(112, 2, 0, null);
INSERT INTO gpnrcarts (Cart_Num, Customer_ID, Order_Status, Order_ID)
VALUES(113, 3, 0, null);

```

Script Output Task completed in 0.41 seconds

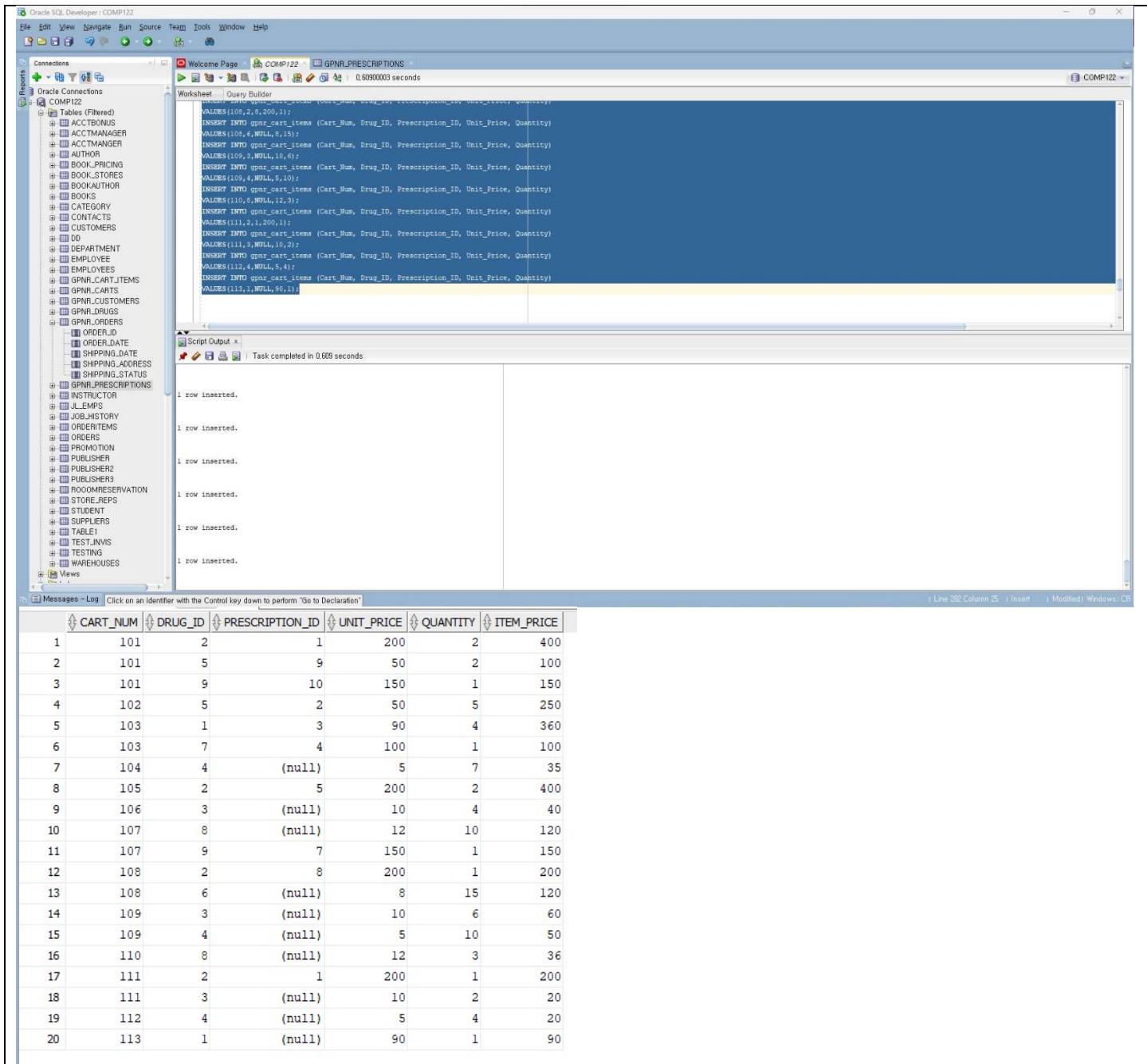
1 row inserted.
1 row inserted.

Messages - Log Click on an identifier with the Control key down to perform "Go to Declaration"

Line 238 Column 25 | Insert | Modified | Windows: CR

CART_NUM	CUSTOMER_ID	ORDER_STATUS	ORDER_ID
1	101	1	2
2	102	2	2
3	103	3	2
4	104	4	2
5	105	5	2
6	106	6	2
7	107	7	2
8	108	8	2
9	109	9	2
10	110	10	2
11	111	1	1 (null)
12	112	2	0 (null)
13	113	3	9 (null)

Insert into gpnrcart_items



Data manipulation on typical use cases

Customer put drugs to his new shopping cart.

For example,

Tom brown (customer# 5) created his new shopping cart (cart num#114), added 2 drugs, which are Creator (drug#2, need prescription) and Advil (drug#8, non-prescription drug).

The screenshot shows the Oracle SQL Developer interface. The left pane displays a tree view of database schemas: DEPARTMENT, DISCOUNTS, EMPLOYEES, EMPLOYEE_ORIG, GPNR_CART_ITEMS, GPNR_CARTS, GPNR_CUSTOMERS, GPNR_DRUGS, and GPNR_ORDERS. The right pane contains a 'Worksheet' tab with a 'Query Builder' section. The query builder contains the following SQL code:

```
INSERT INTO gpnrcart_items (Cart_Num, Drug_ID, Prescription_ID, Unit_Price, Quantity)
VALUES (110, 5, NULL, 12, 3);
INSERT INTO gpnrcart_items (Cart_Num, Drug_ID, Prescription_ID, Unit_Price, Quantity)
VALUES (111, 2, 1, 200, 1);
INSERT INTO gpnrcart_items (Cart_Num, Drug_ID, Prescription_ID, Unit_Price, Quantity)
VALUES (111, 3, NULL, 10, 2);
INSERT INTO gpnrcart_items (Cart_Num, Drug_ID, Prescription_ID, Unit_Price, Quantity)
VALUES (112, 4, NULL, 5, 4);
INSERT INTO gpnrcart_items (Cart_Num, Drug_ID, Prescription_ID, Unit_Price, Quantity)
VALUES (113, 1, NULL, 90, 1);

-- Samples of some Data manipulation on typical use cases
-- Create a new shopping cart and added 2 drugs there
INSERT INTO gpnrcarts (Cart_Num, Customer_ID, Order_Status, Order_ID)
VALUES (114, 5, DEFAULT, DEFAULT);
INSERT INTO gpnrcart_items (Cart_Num, Drug_ID, Prescription_ID, Unit_Price, Quantity)
VALUES (114, 2, NULL, 200, 1);
INSERT INTO gpnrcart_items (Cart_Num, Drug_ID, Prescription_ID, Unit_Price, Quantity)
VALUES (114, 8, NULL, 12, 2);
```

The 'Script Output' tab shows the results of the execution:

```
1 row inserted.

1 row inserted.

1 row inserted.
```

gpnr_carts

	CART_NUM	CUSTOMER_ID	ORDER_STATUS	ORDER_ID
1	101	1	2	110
2	102	2	2	111
3	103	3	2	112
4	104	4	2	113
5	105	5	2	114
6	106	6	2	115
7	107	7	2	116
8	108	8	2	117
9	109	9	2	118
10	110	10	2	119
11	111	1	1	(null)
12	112	2	0	(null)
13	113	3	9	(null)
14	114	5	0	(null)

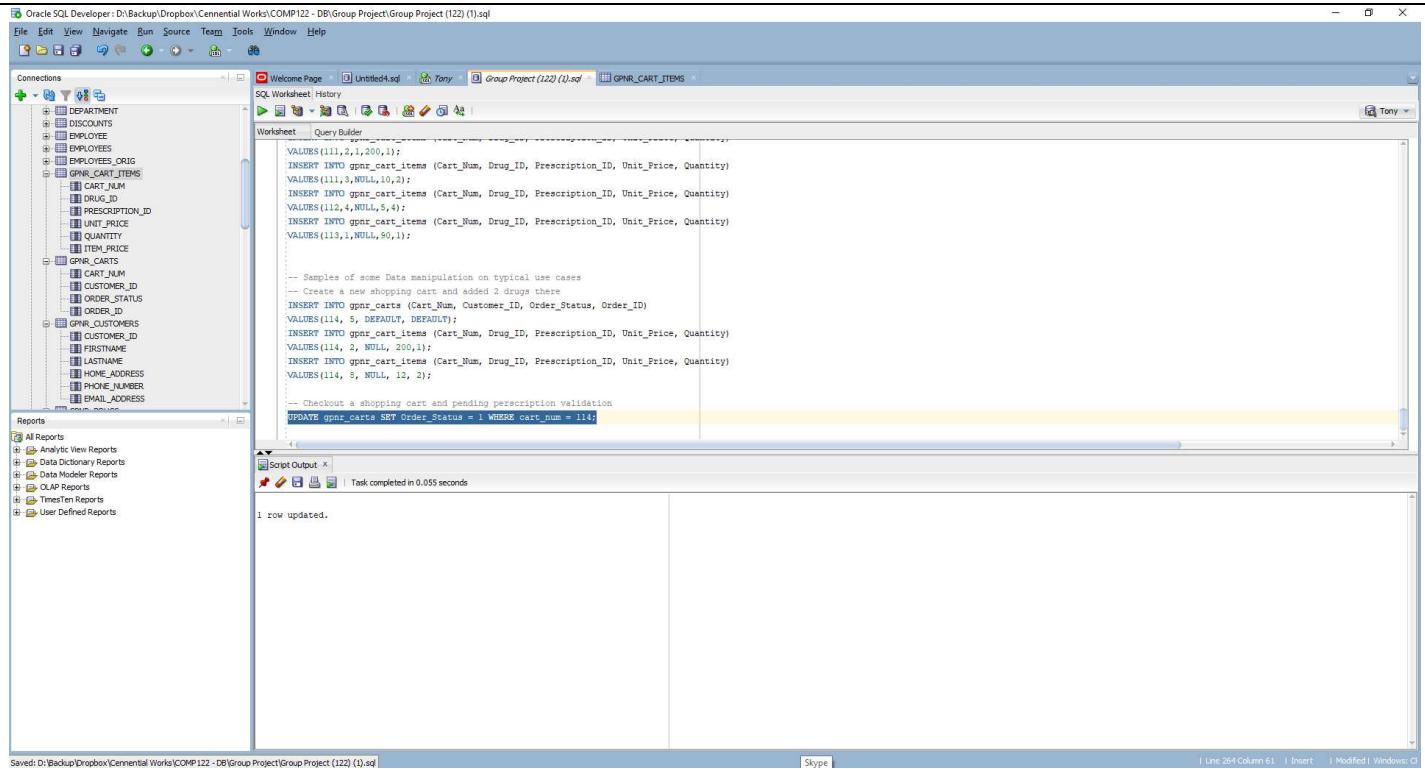
gpnrcart_items

CART_NUM	DRUG_ID	PRESCRIPTION_ID	UNIT_PRICE	QUANTITY	ITEM_PRICE
1	101	2	1	200	400
2	101	5	9	50	100
3	101	9	10	150	150
4	102	5	2	50	50
5	103	1	3	90	360
6	103	7	4	100	100
7	104	4	(null)	5	35
8	105	2	5	200	400
9	106	3	(null)	10	40
10	107	8	(null)	12	120
11	107	9	7	150	150
12	108	2	8	200	200
13	108	6	(null)	8	120
14	109	3	(null)	10	60
15	109	4	(null)	5	50
16	110	8	(null)	12	36
17	111	2	1	200	200
18	111	3	(null)	10	20
19	112	4	(null)	5	20
20	113	1	(null)	90	90
21	114	2	(null)	200	200
22	114	8	(null)	12	24

Customer checkout his/her shopping cart

For example,

Tom brown (customer# 5) checkout his shopping cart (cart num#114) and pending prescription validation



The screenshot shows the Oracle SQL Developer interface. The left sidebar displays a tree view of database schemas and tables, including DEPARTMENT, EMPLOYEES, EMPLOYEE_CRIG, GPNR_CART_ITEMS, GPNR_CARTS, GPNR_CUSTOMERS, and Reports. The central area is a worksheet containing the following SQL code:

```

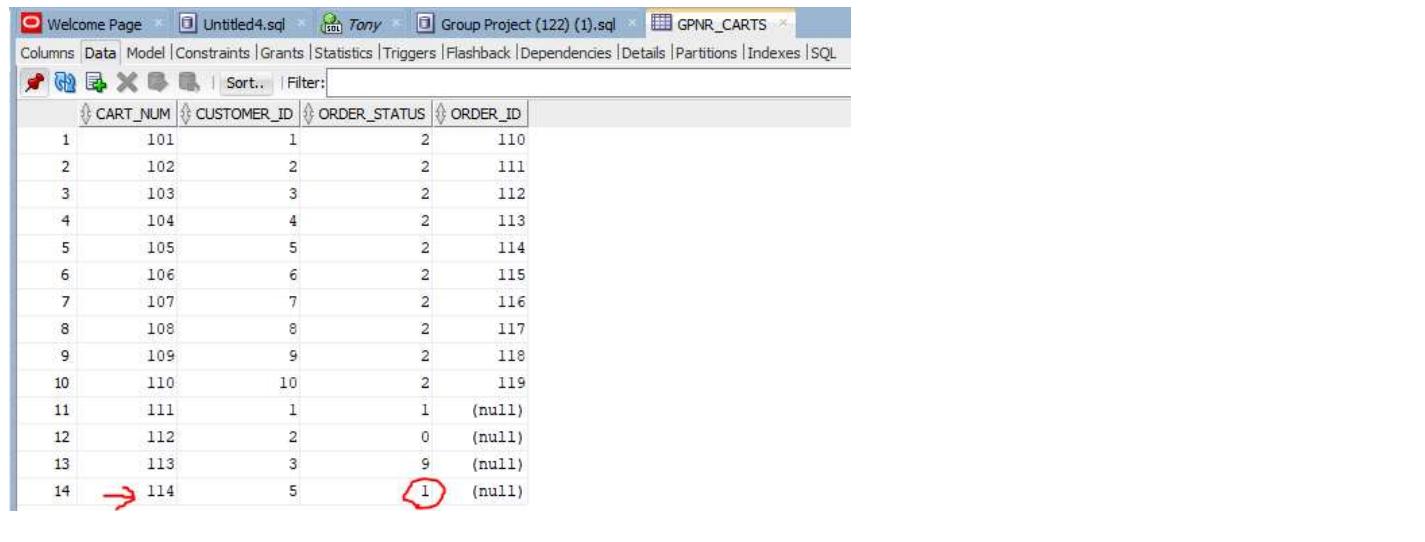
VALUES(111,2,1,200,1);
INSERT INTO gpnrcart_items (Cart_Num, Drug_ID, Prescription_ID, Unit_Price, Quantity)
VALUES(111,3,NULL,10,2);
INSERT INTO gpnrcart_items (Cart_Num, Drug_ID, Prescription_ID, Unit_Price, Quantity)
VALUES(111,4,NULL,5,4);
INSERT INTO gpnrcart_items (Cart_Num, Drug_ID, Prescription_ID, Unit_Price, Quantity)
VALUES(111,1,NULL,90,1);

-- Samples of some Data manipulation on typical use cases
-- Create a new shopping cart and added 2 drugs there
INSERT INTO gpnrcarts (Cart_Num, Customer_ID, Order_Status, Order_ID)
VALUES(114, 5, DEFAULT, DEFAULT);
INSERT INTO gpnrcart_items (Cart_Num, Drug_ID, Prescription_ID, Unit_Price, Quantity)
VALUES(114, 2, NULL, 200,1);
INSERT INTO gpnrcart_items (Cart_Num, Drug_ID, Prescription_ID, Unit_Price, Quantity)
VALUES(114, 8, NULL, 12, 2);

-- Checkout a shopping cart and pending prescription validation
UPDATE gpnrcarts SET Order_Status = 1 WHERE Cart_Num = 114;

```

The bottom right corner of the worksheet shows "1 row updated."



The screenshot shows the Oracle SQL Developer interface with the GPNR_CARTS table selected. The table has columns: CART_NUM, CUSTOMER_ID, ORDER_STATUS, and ORDER_ID. The data is as follows:

CART_NUM	CUSTOMER_ID	ORDER_STATUS	ORDER_ID
1	101	1	2
2	102	2	2
3	103	3	2
4	104	4	2
5	105	5	2
6	106	6	2
7	107	7	2
8	108	8	2
9	109	9	2
10	110	10	2
11	111	1	1 (null)
12	112	2	0 (null)
13	113	3	9 (null)
14	114	5	1 (null)

A red arrow points to the row with CUSTOMER_ID 114, and a red circle highlights the value '1' in the ORDER_STATUS column of that row.

Customer link his/her subscription to the drug order checked out.

For example,

Tom brown (customer# 5) checkout his shopping cart (cart num#114), one of the ordered item is Crestor (drug#2) need prescription, so he need to link-up this order item to the prescription he submitted (ID#5) to our pharmacy before.

Oracle SQL Developer : D:\Backup\Dropbox\Cennental Works\COMP122 - DB\Group Project\Group Project (122) (1).sql

File Edit View Navigate Run Source Team Tools Window Help

Connections Tony

Worksheet Query Builder

```
VALUES (112, $, NULL, 5, 4);
INSERT INTO gpnrcart_items (Cart_Num, Drug_ID, Prescription_ID, Unit_Price, Quantity)
VALUES (113, 1, NULL, 90, 1);

-- Samples of some Data manipulation on typical use cases
-- Create a new shopping cart and added 2 drugs there
INSERT INTO gpnrcarts (Cart_Num, Customer_ID, Order_Status, Order_ID)
VALUES (114, 5, DEFAULT, DEFAULT);
INSERT INTO gpnrcart_items (Cart_Num, Drug_ID, Prescription_ID, Unit_Price, Quantity)
VALUES (114, 2, NULL, 200, 1);
INSERT INTO gpnrcart_items (Cart_Num, Drug_ID, Prescription_ID, Unit_Price, Quantity)
VALUES (114, 8, NULL, 12, 2);

-- Checkout a shopping cart and pending prescription validation
UPDATE gpnrcarts SET Order_Status = 1 WHERE Cart_Num = 114;

-- Link-up ordered drug with a prescription
UPDATE gpnrcart_items SET Prescription_ID = 5 WHERE Cart_Num = 114 and Drug_ID = 2;
```

Reports All Reports Analytic View Reports Data Dictionary Reports Data Modeler Reports OLAP Reports TimeTen Reports User Defined Reports

Script Output Task completed in 0.051 seconds

1 row updated.

Saved: D:\Backup\Dropbox\Cennental Works\COMP122 - DB\Group Project\Group Project (122) (1).sql

Welcome Page Untitled4.sql Tony Group Project (122) (1).sql GPNR_CART_ITEMS

Columns Data Model Constraints Grants Statistics Triggers Flashback Dependencies Details Partitions Indexes SQL

CART_NUM DRUG_ID PRESCRIPTION_ID UNIT_PRICE QUANTITY ITEM_PRICE

CART_NUM	DRUG_ID	PRESCRIPTION_ID	UNIT_PRICE	QUANTITY	ITEM_PRICE	
1	101	2	1	200	2	400
2	101	5	9	50	2	100
3	101	9	10	150	1	150
4	102	5	2	50	5	250
5	103	1	3	90	4	360
6	103	7	4	100	1	100
7	104	4	(null)	5	7	35
8	105	2	5	200	2	400
9	106	3	(null)	10	4	40
10	107	8	(null)	12	10	120
11	107	9	7	150	1	150
12	108	2	8	200	1	200
13	108	6	(null)	8	15	120
14	109	3	(null)	10	6	60
15	109	4	(null)	5	10	50
16	110	8	(null)	12	3	36
17	111	2	1	200	1	200
18	111	3	(null)	10	2	20
19	112	4	(null)	5	4	20
20	113	1	(null)	90	1	90
21	114	2	5	200	1	200
22	114	8	(null)	12	2	24

Our staff validated customer's prescription and created an order.

For example,

Our staff validated Tom Brown (customer# 5) order with shopping cart (cart num#114), a new order (order#120) is created to deliver drugs to customer's home address. Num_Of_Orders is updated as well for customer's prescription (Prescription#5)

```

File Edit View Navigate Run Source Team Tools Window Help
File Edit View Navigate Run Source Team Tools Window Help
Connections Tony Group Project (122) (1).sql
Welcome Page Untitled4.sql Tony Group Project (122) (1).sql GPNR_CART_ITEMS
SQL Worksheet History
Worksheet Query Builder
-- Create a new shopping cart and added 2 drugs there
INSERT INTO gpmc_carts (Cart_Num, Customer_ID, Order_Status, Order_ID)
VALUES(114, 5, DEFAULT, DEFAULT);
INSERT INTO gpmc_cart_items (Cart_Num, Drug_ID, Prescription_ID, Unit_Price, Quantity)
VALUES(114, 2, NULL, 200, 1);
INSERT INTO gpmc_cart_items (Cart_Num, Drug_ID, Prescription_ID, Unit_Price, Quantity)
VALUES(114, 8, NULL, 12, 2);

-- Checkout a shopping cart and pending prescription validation
UPDATE gpmc_carts SET Order_Status = 1 WHERE Cart_Num = 114;

-- Link-up ordered drug with a prescription
UPDATE gpmc_cart_items SET Prescription_ID = 5 WHERE Cart_Num = 114 and Drug_ID = 2;

-- Validated customer's prescription and create an order
INSERT INTO gpmc_orders (Order_ID, Order_Date, Shipping_Date, Shipping_Address, Shipping_Status)
VALUES (120, DEFAULT, NULL, '520 Ellemere St, Scarborough, CANADA', DEFAULT);
UPDATE gpmc_carts SET Order_Status = 2, Order_ID = 120 WHERE Cart_Num = 114;
UPDATE gpmc_prescriptions SET Num_Of_Orders = Num_Of_Orders + 1 WHERE Prescription_ID = 5;

```

Script Output

Task completed in 0.127 seconds

1 row inserted.

1 row updated.

1 row updated.

Saved: D:\Backup\Dropbox\Cennental Works\COMP122 - DB\Group Project\Group Project (122) (1).sql

Welcome Page Untitled4.sql Tony Group Project (122) (1).sql GPNR_ORDERS

Columns Data Model Constraints Grants Statistics Triggers Flashback Dependencies Details Partitions Indexes SQL

ORDER_ID	ORDER_DATE	SHIPPING_DATE	SHIPPING_ADDRESS	SHIPPING_STATUS
1	110	30-MAR-23	(null)	115 Omni Drive, Unit#1104, Scarborough, CA
2	111	28-MAR-23	02-APR-23	123 Omni Drive, Unit#1122, Scarborough, CA
3	112	27-MAR-23	(null)	789 Maple St, Midland, CANADA
4	113	29-MAR-23	(null)	321 Elm St, Surrey, CANADA
5	114	26-MAR-23	01-APR-23	1213 Pine St, Surrey CANADA
6	115	23-MAR-23	30-MAR-23	520 Ellemere St, Scarborough, CANADA
7	116	22-MAR-23	(null)	1819 Oak Ave., Toronto, CANADA
8	117	20-MAR-23	28-MAR-23	2021 Maple St, Toronto, CANADA
9	118	18-MAR-23	(null)	6123 Ellismere, Scarborough, CANADA
10	119	24-MAR-23	(null)	719 Suen Yat Sen Ave., Markham, CANADA
11	120	02-APR-23	(null)	520 Ellemere St, Scarborough, CANADA

Welcome Page Untitled4.sql Tony Group Project (122) (1).sql GPNR_CARTS

Columns Data Model Constraints Grants Statistics Triggers Flashback Dependencies Details Partitions Indexes

CART_NUM	CUSTOMER_ID	ORDER_STATUS	ORDER_ID
1	101	1	2 110
2	102	2	2 111
3	103	3	2 112
4	104	4	2 113
5	105	5	2 114
6	106	6	2 115
7	107	7	2 116
8	108	8	2 117
9	109	9	2 118
10	110	10	2 119
11	111	1	(null)
12	112	2	0 (null)
13	113	3	9 (null)
14	114	5	2 120

>Welcome Page Untitled4.sql Tony Group Project (122) (1).sql GPNR_PRESCRIPTIONS

Columns Data Model Constraints Grants Statistics Triggers Flashback Dependencies Details Partitions Indexes SQL

Sort.. Filter:

	PRESSCRIPTION_ID	CUSTOMER_ID	PATIENT_NAME	DRUG_NAME	NUM_OF_REFILLS	NUM_OF_ORDERS
1	1	1	Jane Doe	Crestor	3	20
2	2	2	Jane Smith	Ritalin	2	11
3	3	3	Bob Johnson	Viagra	1	02
4	4	3	Solomon	Propecia	2	13
5	5	5	Tom Brown	Crestor	0	10

Process customer orders (package, ship, and complete delivery)

For example,

The order (Order_ID#120) has been packaged, and then shipping on 03 Apr 2023, and subsequently delivered to customer's address.

The screenshot shows the Oracle SQL Developer interface with two main panes. The top pane displays a SQL script named 'Group Project (122) (1).sql' which contains several database update statements. The bottom pane shows the results of the script execution, indicating three rows updated. The second pane shows a table named 'GPNR_ORDERS' with 11 rows of data, where the 11th row (Order_ID 120) has its 'SHIPPING_DATE' field circled in red and its value '03-APR-23' highlighted with a red oval.

```

-- Oracle SQL Developer: D:\Backup\Dropbox\Cennental Works\COMP122 - DB\Group Project\Group Project (122) (1).sql
File Edit View Navigate Run Source Team Tools Window Help
Connections Tony Group Project (122) (1).sql GPNR_PRESCRIPTIONS
SQL Worksheet History
Worksheet Query Builder
VALUES (114, 2, NULL, 200, 1);
INSERT INTO gpnrcarts_items (Cart_Num, Drug_ID, Prescription_ID, Unit_Price, Quantity)
VALUES(114, 8, NULL, 15, 2);

-- Checkout a shopping cart and pending prescription validation
UPDATE gpnrcarts SET Order_Status = 1 WHERE Cart_Num = 114;

-- Link-up ordered drug with a prescription
UPDATE gpnrcart_items SET Prescription_ID = 5 WHERE Cart_Num = 114 and Drug_ID = 8;

-- Validated customer's prescription and create an order.
INSERT INTO gpnroders (Order_ID, Order_Date, Shipping_Date, Shipping_Address, Shipping_Status)
VALUES (120, DEFAULT, NULL, '520 Kilmore St, Scarborough, CANADA', DEFAULT);
UPDATE gpnrcarts SET Order_Status = 2, Order_ID = 120 WHERE Cart_Num = 114;
UPDATE gpnrcprescriptions SET Num_of_Orders = Num_of_Orders + 1 WHERE Prescription_ID = 5;

-- Process customer order
UPDATE gpnroders SET Shipping_Status = 1 WHERE Order_ID = 120;
UPDATE gpnroders SET Shipping_Status = 2, Shipping_Date = '03 Apr 23' WHERE Order_ID = 120;
UPDATE gpnroders SET Shipping_Status = 3 WHERE Order_ID = 120;

```

1 row updated.
1 row updated.
1 row updated.

	ORDER_ID	ORDER_DATE	SHIPPING_DATE	SHIPPING_ADDRESS	SHIPPING_STATUS
1	110	30-MAR-23	(null)	115 Omni Drive, Unit#1104, Scarborough, CA	1
2	111	28-MAR-23	02-APR-23	123 Omni Drive, Unit#1122, Scarborough, CA	2
3	112	27-MAR-23	(null)	789 Maple St, Midland, CANADA	0
4	113	29-MAR-23	(null)	321 Elm St, Surrey, CANADA	0
5	114	26-MAR-23	01-APR-23	1213 Pine St, Surrey CANADA	3
6	115	23-MAR-23	30-MAR-23	520 Ellemere St, Scarborough, CANADA	2
7	116	22-MAR-23	(null)	1819 Oak Ave., Toronto, CANADA	0
8	117	20-MAR-23	28-MAR-23	2021 Maple St, Toronto, CANADA	3
9	118	18-MAR-23	(null)	6123 Ellsmere, Scarborough, CANADA	1
10	119	24-MAR-23	(null)	719 Suen Yat Sin Ave., Markham, CANADA	1
11	120	02-APR-23	03-APR-23	520 Ellemere St, Scarborough, CANADA	3

Check shopping history of a specific customer

For example,

Check shopping history of John Doe (Customer#1)

After execution, we can know that he has 2 shopping carts, the first cart#101 contains Ritalin, Crestor Myrbetriq and already checked out, packaged and pending to ship. The 2nd cart#111 contains Crestor and Extra Tylenol, pending for our validation on prescription.

The screenshot shows the Oracle SQL Developer interface. The left sidebar displays a tree view of database schemas and tables, including GPNR_DRUGS, GPNR_ORDERS, GPNR_PRESCRIPTIONS, and various patient and doctor information tables. The central workspace contains a SQL Worksheet tab with the following query:

```
UPDATE gpnrc_orders SET Shipping_Status = 1 WHERE Order_ID = 120;
UPDATE gpnrc_orders SET Shipping_Status = 2, Shipping_Date = '03 Apr 23' WHERE Order_ID = 120;
UPDATE gpnrc_orders SET Shipping_Status = 3 WHERE Order_ID = 120;

-- Check shopping history of a specific customer
SELECT d.Firstname, d.Lastname, a.Cart_Num, c.Drug_Name "ORDERED_DRUG", e.Is_Prescription_Required, e.drug_name "PRESCRIBED_DRUG",
       b.Unit_Price, b.Quantity, a.Order_Status, a.Order_ID, f.Shipping_Status, f.Shipping_Date
  FROM gpnrc_carts a
  LEFT JOIN gpnrc_cart_items b
    ON a.cart_num = b.cart_num
  LEFT JOIN gpnrc_drugs c
    ON b.drug_id = c.drug_id
  LEFT JOIN gpnrc_customers d
    ON a.Customer_ID = d.Customer_ID
  LEFT JOIN gpnrc_prescriptions e
    ON b.Prescription_ID = e.Prescription_ID
  LEFT JOIN gpnrc_orders f
    ON a.Order_ID = f.Order_ID
   WHERE a.Customer_ID = 1
 ORDER BY b.cart_num;
```

The bottom pane shows the results of the query in a grid format:

FIRSTNAME	LASTNAME	CART_NUM	ORDERED_DRUG	IS_PRESCRIPTION_REQUIRED	PRESCRIBED_DRUG	UNIT_PRICE	QUANTITY	ORDER_STATUS	ORDER_ID	SHIPPING_STATUS
1 John	Doe	101	Ritalin	1	Ritalin	50	2	2	110	1 (null)
2 John	Doe	101	Crestor	1	Crestor	200	2	2	110	1 (null)
3 John	Doe	101	Myrbetriq	1	Myrbetriq	150	1	2	110	1 (null)
4 John	Doe	111	Crestor	1	Crestor	200	1	1	(null)	(null) (null)
5 John	Doe	111	Extra Tylenol	0	(null)	10	2	1	(null)	(null) (null)