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**Assignment of Course 4 (Coursera – IBM Data Engineering Professional Certificate)**

**Task 1**

Answer: staff, sales\_outlet, sales\_transaction, customer, product

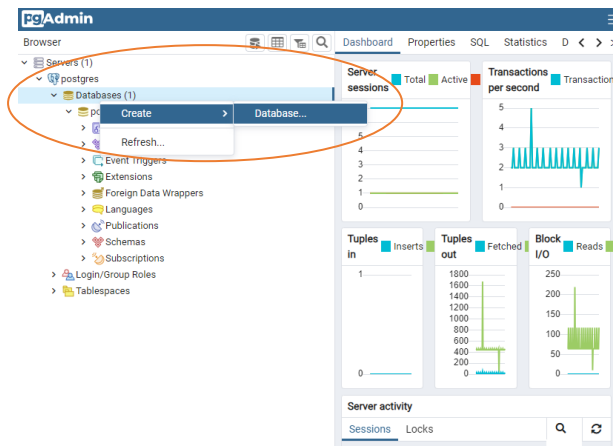
**Task 2**

Attributes in sales\_transaction = transaction\_id, transaction\_date, transaction\_time,  
sales\_outlet\_id, staff\_id, customer\_id, product\_id, quantity, price

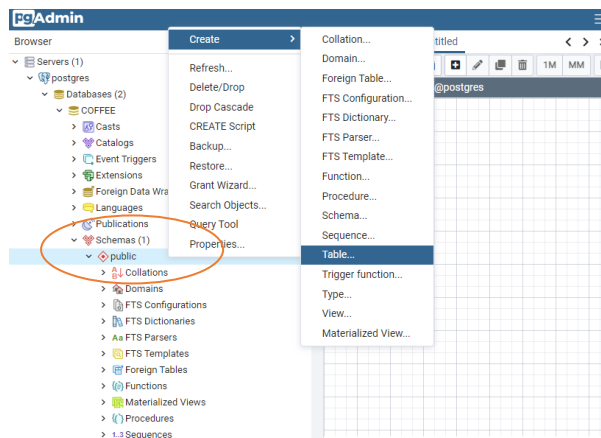
## Task 3

Steps:

### 1) Create database



### 2) Go to Schema - public – Create table

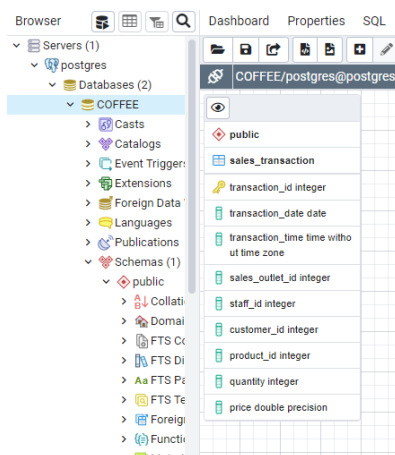


### 3) Fill in details for each table

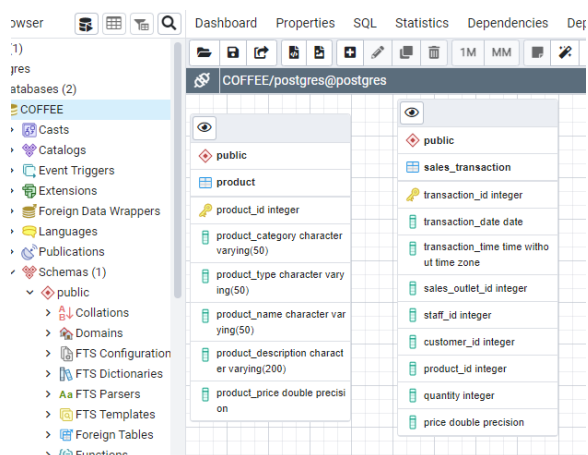
### 4) Create ERD by right clicking COFFEE, then create ERD

Answer:

3A



3B

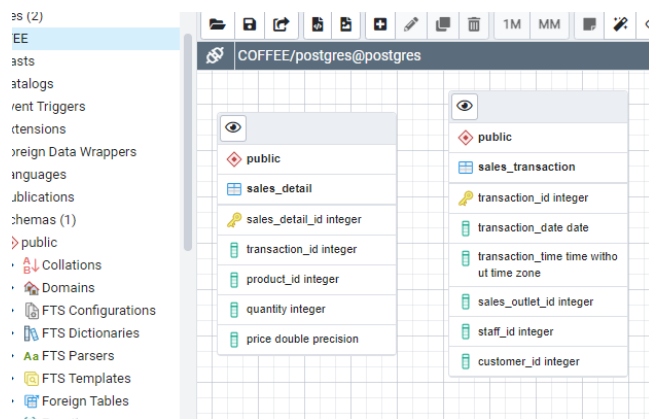


## Task 4

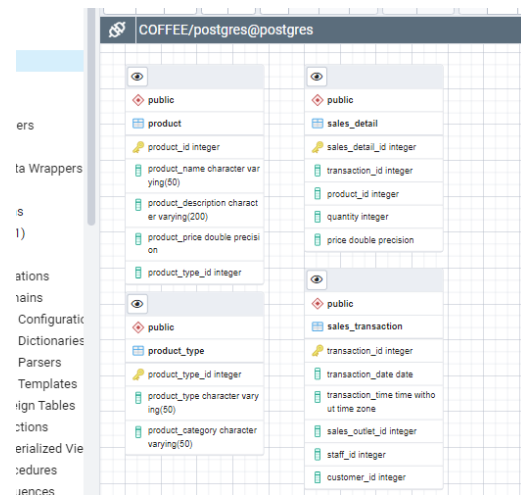
Answer:

- 1) Same procedure as task 3 to add table
- 2) Delete the column by extend the Schemas -> public -> Tables -> Columns -> Right click and select Drop column

4A



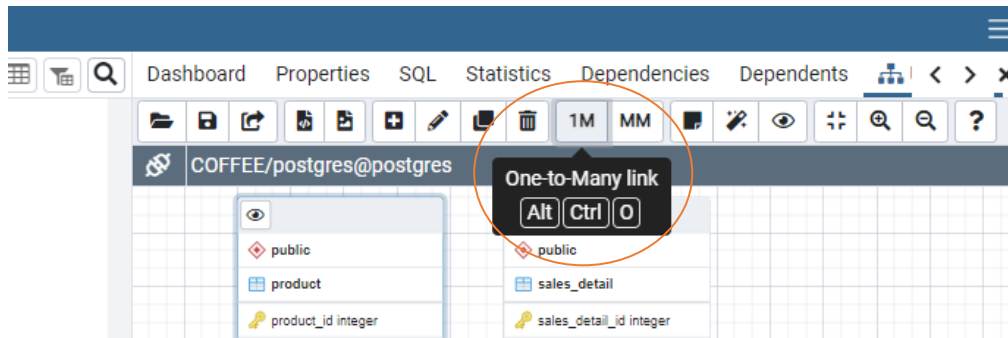
4B



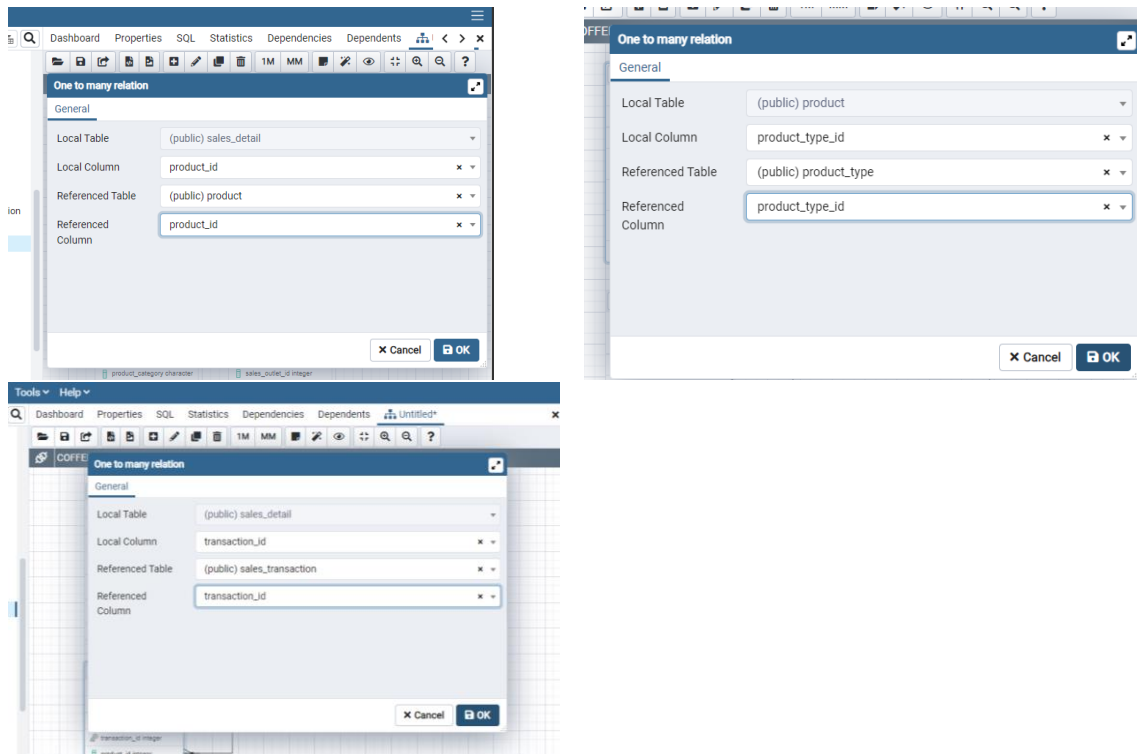
## Task 5

Steps:

- 1) Select the relationship (1M/ MM)

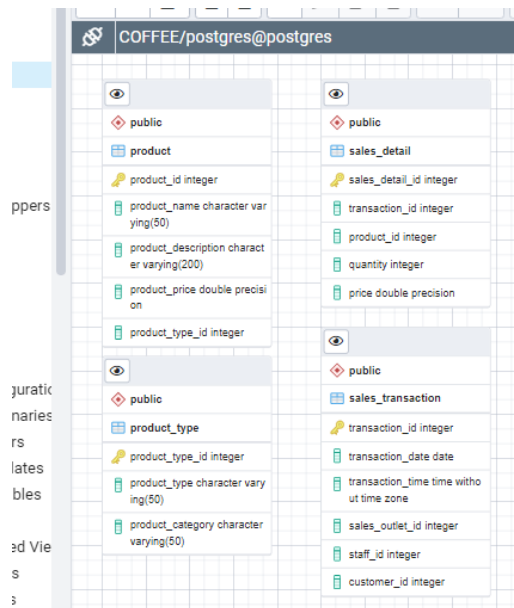


- 2) Create the relationship by identifying the Primary Key and Foreign Key

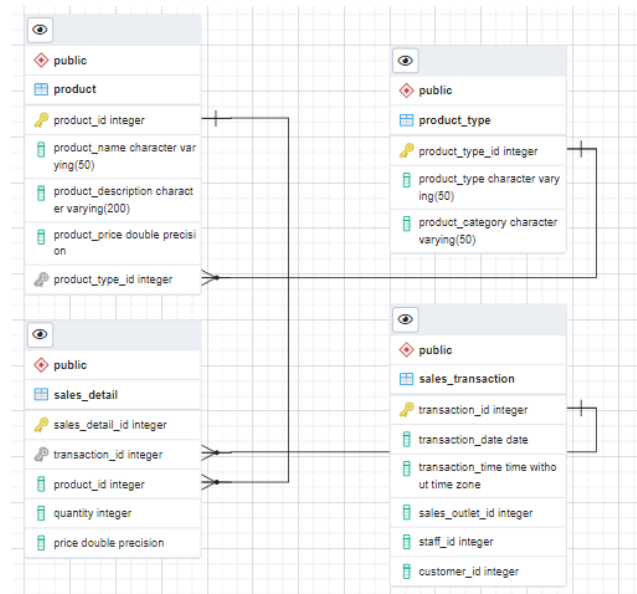


Answer:

5A

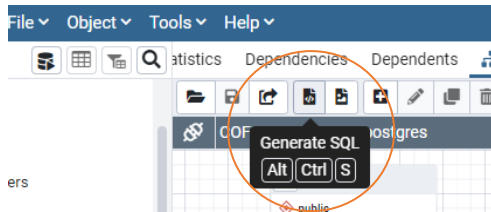


5B



## Task 6

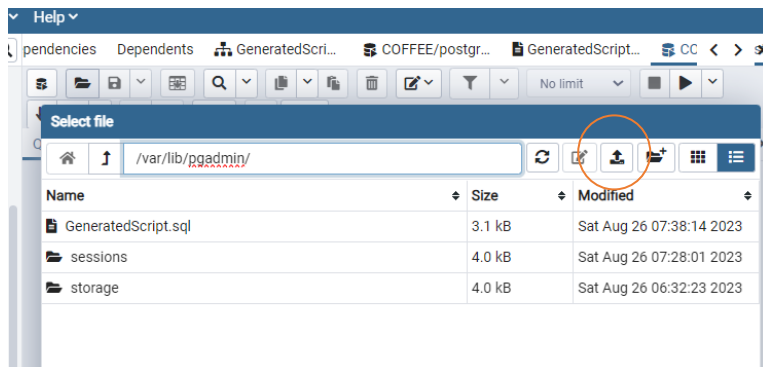
### 1) Click Generate SQL function



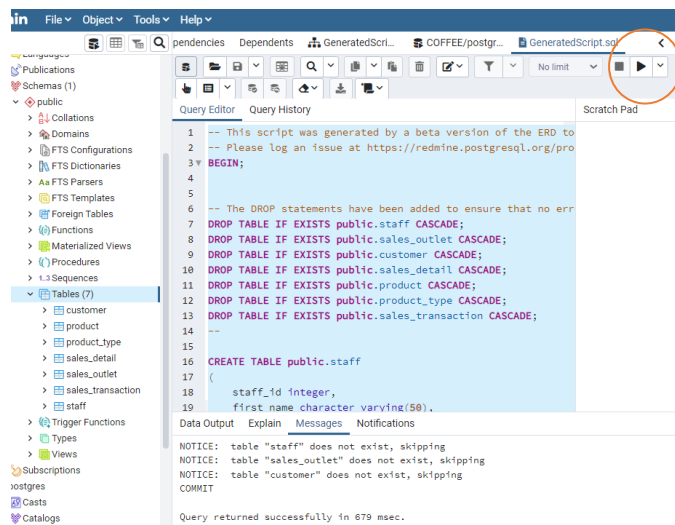
### 2) Open to load file



### 3) Upload file and Select the uploaded file



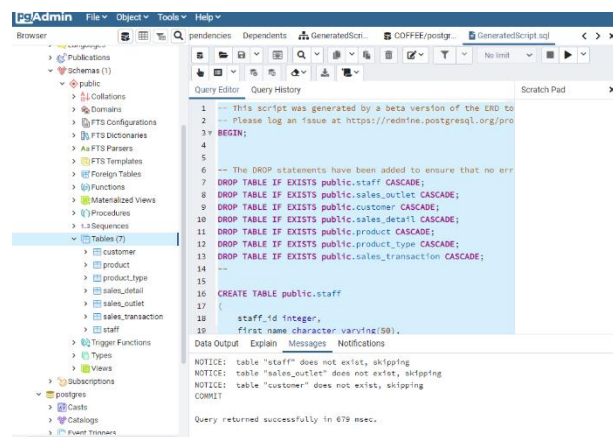
### 4) Run the code – Highlight all and click Run



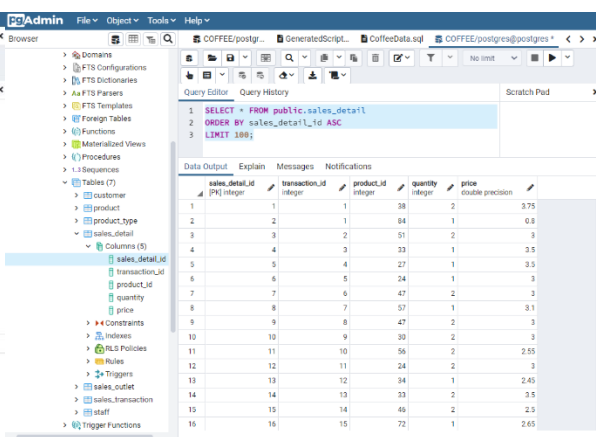
- 5) Repeat for CoffeeData.sql
- 6) To view the first 100 rows, right click sales\_detail table -> view/edit data -> first 100 rows

Answer:

6A



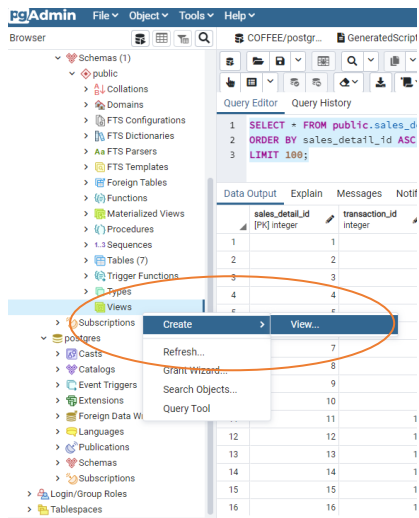
6B



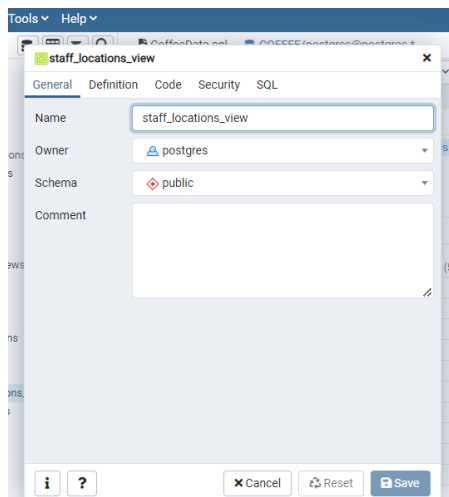
## Task 7

Steps:

### 1) Create View



### 2) Fill in details



### 3) Enter the code





#### 4) View all rows

The screenshot shows the pgAdmin interface. On the left, the 'Browser' pane displays a tree view of the database structure. The 'public' schema is expanded, and 'Views (1)' is selected, showing 'staff\_locations\_view'. A right-click context menu is open over this view, with 'View/Edit Data' selected. The 'Data Output' pane on the right shows the results of a query: 'SELECT \* FROM public.st'. The results are displayed in a table with two columns: 'staff\_id' (integer) and 'first\_name' (character varying (50)).

staff_id	first_name
1	3 Marny
2	4 Chelsea
3	5 Alec
4	6 Xena
5	7 Kelsey
6	8 Hamilton
9	10 Caldwell
11	11 Ima
12	12 Ruth
13	13 Britanni
14	14 Berk
15	15 Damon

Answer:

The screenshot shows the pgAdmin interface with the 'Query Editor' pane. The query 'SELECT \* FROM public.staff\_locations\_view;' is entered. The 'Data Output' pane shows the results of the query, displaying a table with four columns: 'staff\_id', 'first\_name', 'last\_name', and 'location'. A green notification bar at the bottom indicates 'Successfully run. Total query runtime: 651 msec. 53 rows affected.'

staff_id	first_name	last_name	location
1	3 Marny	Hermione	WH
2	4 Chelsea	Claudia	WH
3	5 Alec	Isadora	WH
4	6 Xena	Rahim	3
5	7 Kelsey	Cameron	3
6	8 Hamilton	Emi	3
7	9 Caldwell	Veda	3
8	10 Ima	Winifred	3
9	11 Ruth	Leslie	4
10	12 Britanni	Jorden	4
11	13 Berk	Derek	4
12	14 Damon	Sasha	4
13	15 Remedios	Mari	4
14	16 Reed	Eve	5
15	17 Quail	Octavia	5
16	18 Ezekiel		

Task 8

DBAdmin interface showing a query editor and a table view.

**Query Editor:**

```
SELECT * FROM public."product_info_mv-view"
```

**Table View:**

product_name	description	product_category
Brazilian-Organic	It's like Carnival in a cup. Chew.	Coffee beans
Our Old Time Dinner Blend	Our packed blend of beans th.	Coffee beans
Espresso Roast	Our house blend for a good an.	Coffee beans
Prime Espresso Roast	Our premium single source of.	Coffee beans
Columbian Medium Roast	A smooth cup of coffee any th.	Coffee beans
Ethiopia	From the home of coffee.	Coffee beans
Jamaican Coffee River	You max, it will start your day...	Coffee beans
Cloud Cat	The most expensive coffee in.	Coffee beans
Organic Decaf Blend	Our blend of hand-picked orga.	Coffee beans
Guatemalan Sustainability Green	Green beans you can roast yo.	Coffee beans
Lemon Grass	You will think you are Thailand.	Loose Tea
Peppermint	Cool and refreshing in help ca.	Loose Tea
English Breakfast	The traditional cup to start yo.	Loose Tea
Earl Grey	A full wall of Orange Pelose de.	Loose Tea
Serenity Green Tea	Mountain grown and heavenly.	Loose Tea
Traditional Blend Chai	A traditional blend.	Loose Tea
Morning Sunrise Chai	Fair trade and organic and tea.	Loose Tea
Spicy Eye Opener Chai	A spicy blend to awaken you.	Loose Tea
Dark chocolate	This delicious chocolate is am.	Packaged Chocolate
Sustainably Grown Organic	Certified organic containing th.	Packaged Chocolate
Chia Muesli	Frugant with organic, this is th.	Packaged Chocolate
Our Old Time Dinner Blend Sm	An honest cup a coffee.	Coffee
Our Old Time Dinner Blend Rg	An honest cup a coffee.	Coffee
Our Old Time Dinner Blend Lg	An honest cup a coffee.	Coffee
Brazilian Sm	It's like Carnival in a cup. Chew.	Coffee
Brazilian Rg	It's like Carnival in a cup. Chew.	Coffee
Brazilian Lg	It's like Carnival in a cup. Chew.	Coffee
Columbian Medium Roast Sm	A smooth cup of coffee any th.	Coffee
Columbian Medium Roast Rg	A smooth cup of coffee any th.	Coffee

Task 9

HRM DB2 on Cloud interface showing a table view.

**Table View:**

STAFF_ID	FIRST_NAME	LAST_NAME	LOCATION
1	Mary	Hermann	WH
2	Chelsea	Claudia	WH
3	Alex	Jordan	WH
4	Xena	Rahim	3
5	Kelsey	Cameron	3
6	Hamilton	Emi	3
7	Calvett	Veda	3
8	Jma	Winifred	3
9	Ruth	Leslie	4
10	Brittani	Jordan	4
11	Berk	Derek	4
12	Damon	Sasha	4
13	Benedict	Mai	4
14	Reed	Eow	5
15	Quail	Octavia	5
16	Ezekiel	Rashad	5
17	Peter	Paloma	5
18	Ronan	Magre	5
19	Matzda	Mercedes	6
20	Mamy	Dennis	6
21	Byrthe	Aracelio	6
22	Garrett	Doris	6
23	Aline	Holena	6
24	Joella	Christen	7
25	Ainsley	Erilyn	7
26	Joseph	Byron	7
27	Orson	Benedict	7
28	Amata	Chadwick	7

Task 10

phpMyAdmin

Reciente

Favoritas

Nueva

coffee\_shop\_products

Nueva

product\_info\_m\_view

information\_schema

mysql

performance\_schema

sys

Servidor: mysql:3306 » Base de datos: coffee\_shop\_products » Tabla: product\_info\_m\_view

Examinar

Estructura

SQL

Buscar

Insertar

Exportar

Importar

Privilegios

Operaciones

Disparadores

SELECT \* FROM `product\_info\_m\_view`

Perfilando

Editar en línea

Editar

Explicar

☐ Mostrar todo

Número de filas: 500

Filtrar filas:

+ Opciones

COL 1	COL 2	COL 3
product_name	description	product_category
Brazilian - Organic	It's like Carnival in a cup. Clean and smooth.	Coffee beans
Our Old Time Diner Blend	Our packed blend of beans that is reminiscent of t...	Coffee beans
Espresso Roast	Our house blend for a good espresso shot.	Coffee beans
Primo Espresso Roast	Our premium single source of hand roasted beans.	Coffee beans
Columbian Medium Roast	A smooth cup of coffee any time of day.	Coffee beans
Ethiopia	From the home of coffee.	Coffee beans
Jamaican Coffee River	Ya man, it will start your day off right.	Coffee beans
Civet Cat	The most expensive coffee in the world, the cats d...	Coffee beans
Organic Decaf Blend	Our blend of hand picked organic beans that have b...	Coffee beans
Guatemalan Sustainably Grown	Green beans you can roast yourself.	Coffee beans
Lemon Grass	You will think you are Thailand as you sip your cu...	Loose Tea
Peppermint	Cool and refreshing to help calm your nerves.	Loose Tea
English Breakfast	The traditional cup to start your day.	Loose Tea
Earl Grey	A full leaf of Orange Pekoe blended with organic o...	Loose Tea
Serenity Green Tea	Mountain grown and harvested at the optimal time.	Loose Tea
Traditional Blend Chai	A traditional blend.	Loose Tea
Morning Sunrise Chai	Fair trade and organic and has a warm finish.	Loose Tea
Spicy Eye Opener Chai	A spicier blend to awaken your taste buds.	Loose Tea
Dark chocolate	This drinking chocolate is smooth and creamy.	Packaged Chocolate
Sustainably Grown Organic	Certified organic containing the highest quality l...	Packaged Chocolate
Chili Mayan	Fragrant with spices, this is the most flavourful ...	Packaged Chocolate
Our Old Time Diner Blend Sm	An honest cup a coffee.	Coffee
Our Old Time Diner Blend Rg	An honest cup a coffee.	Coffee
Our Old Time Diner Blend Lg	An honest cup a coffee.	Coffee
Brazilian Sm	It's like Carnival in a cup. Clean and smooth.	Coffee
Brazilian Rg	It's like Carnival in a cup. Clean and smooth.	Coffee
Brazilian Lg	It's like Carnival in a cup. Clean and smooth.	Coffee
Columbian Medium Roast Sm	A smooth cup of coffee any time of day.	Coffee
Columbian Medium Roast Rg	A smooth cup of coffee any time of day.	Coffee
Columbian Medium Roast Lg	A smooth cup of coffee any time of day.	Coffee
Ethiopia Sm	A bold cup when you want that something extra.	Coffee
Ethiopia Rg	A bold cup when you want that something extra.	Coffee
Ethiopia Lg	A bold cup when you want that something extra.	Coffee
Jamaican Coffee River Sm	Still a front runner for good premium coffee.	Coffee
Jamaican Coffee River Rg	Still a front runner for good premium coffee.	Coffee
Jamaican Coffee River Lg	Still a front runner for good premium coffee.	Coffee
Espresso shot	You will think you are in Venice when you sip this...	Coffee
Latte	You will think you are in Venice when you sip this...	Coffee