

Preparing Tables

Let us prepare retail tables to come up with the solution for the problem statement.

- Ensure that we have required database and user for retail data. We might provide the database as part of our labs. Here are the instructions to use `psql` for setting up the required tables.

```
psql -U postgres -h localhost -p 5432 -W
```

```
CREATE DATABASE itversity_retail_db;  
CREATE USER itversity_retail_user WITH ENCRYPTED PASSWORD 'retail_password';  
GRANT ALL ON DATABASE itversity_retail_db TO itversity_retail_user;
```

- Create Tables using the script provided. You can either use `psql` or `SQL Alchemy`.

```
psql -U itversity_retail_user \  
-h localhost \  
-p 5432 \  
-d itversity_retail_db \  
-W  
  
\i /data/retail_db/create_db_tables_pg.sql
```

- Data shall be loaded using the script provided.

```
\i /data/retail_db/load_db_tables_pg.sql
```

- Run queries to validate we have data in all the 3 tables.

```
%load_ext sql
```

```
%env  
DATABASE_URL=postgresql://itversity_retail_user:retail_password@localhost:5432/itversity_retail_db
```

```
env:  
DATABASE_URL=postgresql://itversity_retail_user:retail_password@localhost:5432/itversity_retail_db
```

```
%sql SELECT current_database()
```

```
1 rows affected.
```

```
current_database
```

```
itversity_retail_db
```

```
%%sql  
  
SELECT * FROM information_schema.tables  
WHERE table_catalog = 'itversity_retail_db'  
AND table_schema = 'public'  
LIMIT 10
```

```
* postgresql://itversity_retail_user:***@localhost:5432/itversity_retail_db  
6 rows affected.
```

table_catalog	table_schema	table_name	table_type	self_referencing_column_name	referential
itversity_retail_db	public	categories	BASE TABLE		None
itversity_retail_db	public	departments	BASE TABLE		None
itversity_retail_db	public	products	BASE TABLE		None
itversity_retail_db	public	customers	BASE TABLE		None
itversity_retail_db	public	orders	BASE TABLE		None
itversity_retail_db	public	order_items	BASE TABLE		None

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```
%sql SELECT * FROM orders LIMIT 10
```

```
* postgresql://itversity_retail_user:***@localhost:5432/itversity_retail_db
10 rows affected.
```

order_id	order_date	order_customer_id	order_status
1	2013-07-25 00:00:00	11599	CLOSED
2	2013-07-25 00:00:00	256	PENDING_PAYMENT
3	2013-07-25 00:00:00	12111	COMPLETE
4	2013-07-25 00:00:00	8827	CLOSED
5	2013-07-25 00:00:00	11318	COMPLETE
6	2013-07-25 00:00:00	7130	COMPLETE
7	2013-07-25 00:00:00	4530	COMPLETE
8	2013-07-25 00:00:00	2911	PROCESSING
9	2013-07-25 00:00:00	5657	PENDING_PAYMENT
10	2013-07-25 00:00:00	5648	PENDING_PAYMENT

```
%sql SELECT * FROM order_items LIMIT 10
```

```
* postgresql://itversity_retail_user:***@localhost:5432/itversity_retail_db
10 rows affected.
```

order_item_id	order_item_order_id	order_item_product_id	order_item_quantity	order_item_sub
1	1	957	1	29
2	2	1073	1	19
3	2	502	5	2
4	2	403	1	12
5	4	897	2	4
6	4	365	5	29
7	4	502	3	1
8	4	1014	4	19
9	5	957	1	29
10	5	365	5	29

<		>
---	--	---

```
%sql SELECT * FROM products LIMIT 10
```

```
* postgresql://itversity_retail_user:***@localhost:5432/itversity_retail_db
10 rows affected.
```

product_id	product_category_id	product_name	product_description	product_price	
1	2	Quest Q64 10 FT. x 10 FT. Slant Leg Instant U		59.98	http://ima
2	2	Under Armour Men's Highlight MC Football Clea		129.99	http:
3	2	Under Armour Men's Renegade D Mid Football CI		89.99	http://im.
4	2	Under Armour Men's Renegade D Mid Football CI		89.99	http://im.
5	2	Riddell Youth Revolution Speed Custom Footbal		199.99	http://ir
6	2	Jordan Men's VI Retro TD Football Cleat		134.99	
7	2	Schutt Youth Recruit Hybrid Custom Football H		99.99	http://imag
8	2	Nike Men's Vapor Carbon Elite TD Football Cle		129.99	http:
9	2	Nike Adult Vapor Jet 3.0 Receiver Gloves		50.0	
10	2	Under Armour Men's Highlight MC Football Clea		129.99	http:

```
%sql SELECT count(1) FROM orders
```

```
* postgresql://itversity_retail_user:***@localhost:5432/itversity_retail_db
1 rows affected.
```

count

68883

```
%sql SELECT count(1) FROM order_items
```

```
* postgresql://itversity_retail_user:***@localhost:5432/itversity_retail_db
1 rows affected.
```

count

172198

```
%sql SELECT count(1) FROM products
```

```
* postgresql://itversity_retail_user:***@localhost:5432/itversity_retail_db
1 rows affected.
```

count

1345

