

Solution – Daily Product Revenue

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Let us review the Final Solution for our problem statement **daily_product_revenue**.

- Prepare tables
 - Create tables
 - Load the data into tables
- We need to project the fields which we are interested in. We need to have **product_id** as well as **product_name** as there can be products with same name and can result in incorrect output.
 - order_date
 - order_item_product_id
 - product_name
 - product_revenue
- As we have fields from multiple tables, we need to perform join after which we have to filter for COMPLETE or CLOSED orders.
- We have to group the data by order_date and order_item_product_id, then we have to perform aggregation on order_item_subtotal to get product_revenue.

```
%load_ext sql
```

The sql extension is already loaded. To reload it, use:
%reload_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 o.order_date,  
       oi.order_item_product_id,  
       p.product_name,  
       round(sum(oi.order_item_subtotal::numeric), 2) AS product_revenue  
FROM orders o  
     JOIN order_items oi  
       ON o.order_id = oi.order_item_order_id  
     JOIN products p  
       ON p.product_id = oi.order_item_product_id  
WHERE o.order_status IN ('COMPLETE', 'CLOSED')  
GROUP BY o.order_date,  
         oi.order_item_product_id,  
         p.product_name  
LIMIT 10
```

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

order_date	order_item_product_id	product_name	product_revenue
2013-07-25 00:00:00	24	Elevation Training Mask 2.0	319.96
2013-07-25 00:00:00	93	Under Armour Men's Tech II T-Shirt	74.97
2013-07-25 00:00:00	134	Nike Women's Legend V-Neck T-Shirt	100.00
2013-07-25 00:00:00	191	Nike Men's Free 5.0+ Running Shoe	5099.49
2013-07-25 00:00:00	226	Bowflex SelectTech 1090 Dumbbells	599.99
2013-07-25 00:00:00	365	Perfect Fitness Perfect Rip Deck	3359.44
2013-07-25 00:00:00	403	Nike Men's CJ Elite 2 TD Football Cleat	1949.85
2013-07-25 00:00:00	502	Nike Men's Dri-FIT Victory Golf Polo	1650.00
2013-07-25 00:00:00	572	TYR Boys' Team Digi Jammer	119.97
2013-07-25 00:00:00	625	Nike Men's Kobe IX Elite Low Basketball Shoe	199.99

```
%%sql
```

```
SELECT o.order_date,
       oi.order_item_product_id,
       p.product_name,
       round(sum(oi.order_item_subtotal::numeric), 2) AS product_revenue
FROM orders o
JOIN order_items oi
  ON o.order_id = oi.order_item_order_id
JOIN products p
  ON p.product_id = oi.order_item_product_id
WHERE o.order_status IN ('COMPLETE', 'CLOSED')
GROUP BY o.order_date,
         oi.order_item_product_id,
         p.product_name
ORDER BY o.order_date,
         product_revenue DESC
LIMIT 10
```

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

order_date	order_item_product_id	product_name	product_revenue
2013-07-25 00:00:00	1004	Field & Stream Sportsman 16 Gun Fire Safe	5599.72
2013-07-25 00:00:00	191	Nike Men's Free 5.0+ Running Shoe	5099.49
2013-07-25 00:00:00	957	Diamondback Women's Serene Classic Comfort Bi	4499.70
2013-07-25 00:00:00	365	Perfect Fitness Perfect Rip Deck	3359.44
2013-07-25 00:00:00	1073	Pelican Sunstream 100 Kayak	2999.85
2013-07-25 00:00:00	1014	O'Brien Men's Neoprene Life Vest	2798.88
2013-07-25 00:00:00	403	Nike Men's CJ Elite 2 TD Football Cleat	1949.85
2013-07-25 00:00:00	502	Nike Men's Dri-FIT Victory Golf Polo	1650.00
2013-07-25 00:00:00	627	Under Armour Girls' Toddler Spine Surge Runni	1079.73
2013-07-25 00:00:00	226	Bowflex SelectTech 1090 Dumbbells	599.99

%%
%%**sql**

```
SELECT count(1) FROM (  
  SELECT o.order_date,  
         oi.order_item_product_id,  
         p.product_name,  
         round(sum(oi.order_item_subtotal::numeric), 2) AS product_revenue  
  FROM orders o  
       JOIN order_items oi  
         ON o.order_id = oi.order_item_order_id  
       JOIN products p  
         ON p.product_id = oi.order_item_product_id  
 WHERE o.order_status IN ('COMPLETE', 'CLOSED')  
 GROUP BY o.order_date,  
          oi.order_item_product_id,  
          p.product_name  
) q
```

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

count

9120