Exploring The Ecommerce Database

PRESENTED BY:

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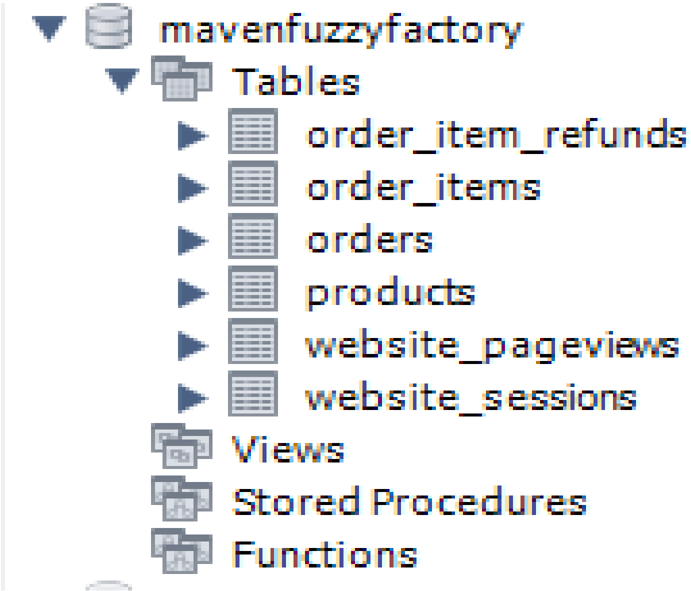
Database

Database Name is MAVENFUZZYFACTORY.

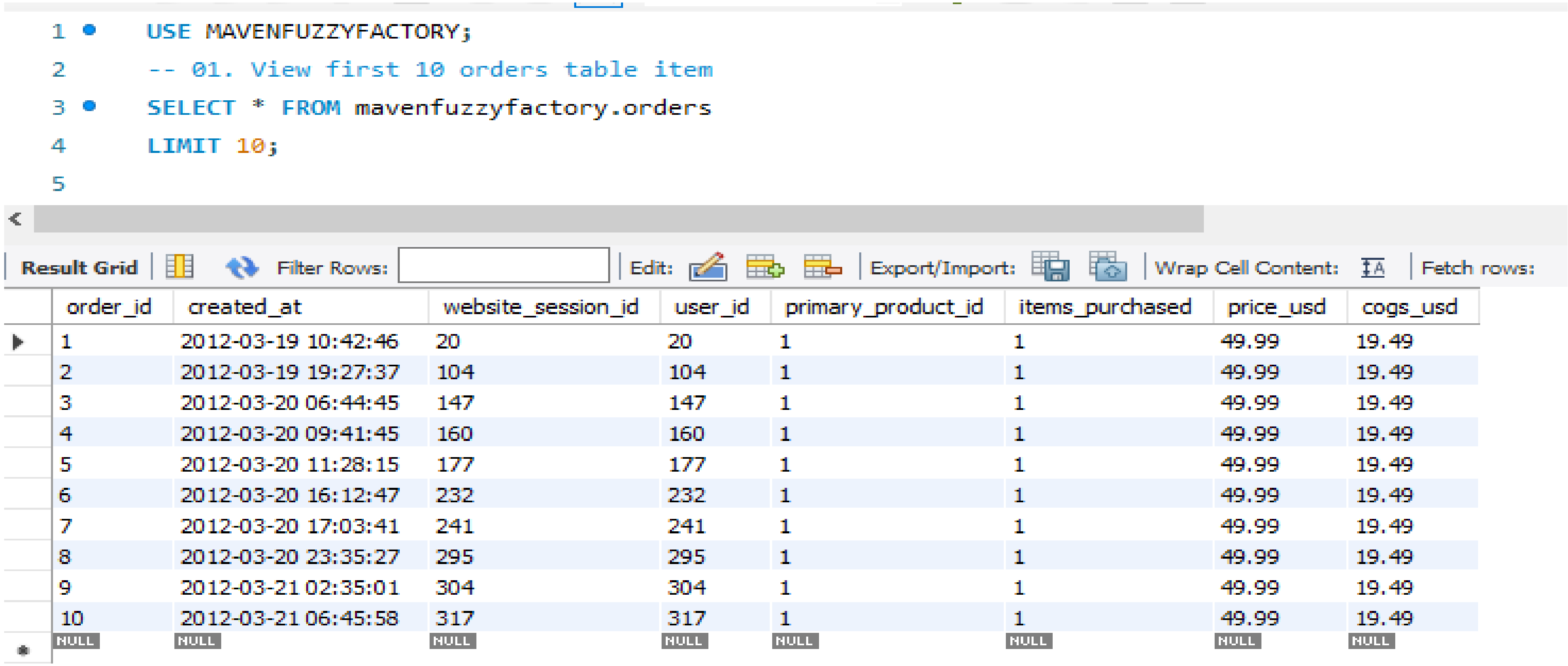
This is a Ecommerce Database. Here are 6 different types of table , Like:



- mavenfuzzyfactory
  - Tables
    - order_item_refunds
    - order_items
    - orders
    - products
    - website_pageviews
    - website_sessions
  - Views
  - Stored Procedures
  - Functions

MAVENFUZZYFACTORY Database Tables

Problem 01 : View first 10 orders table item

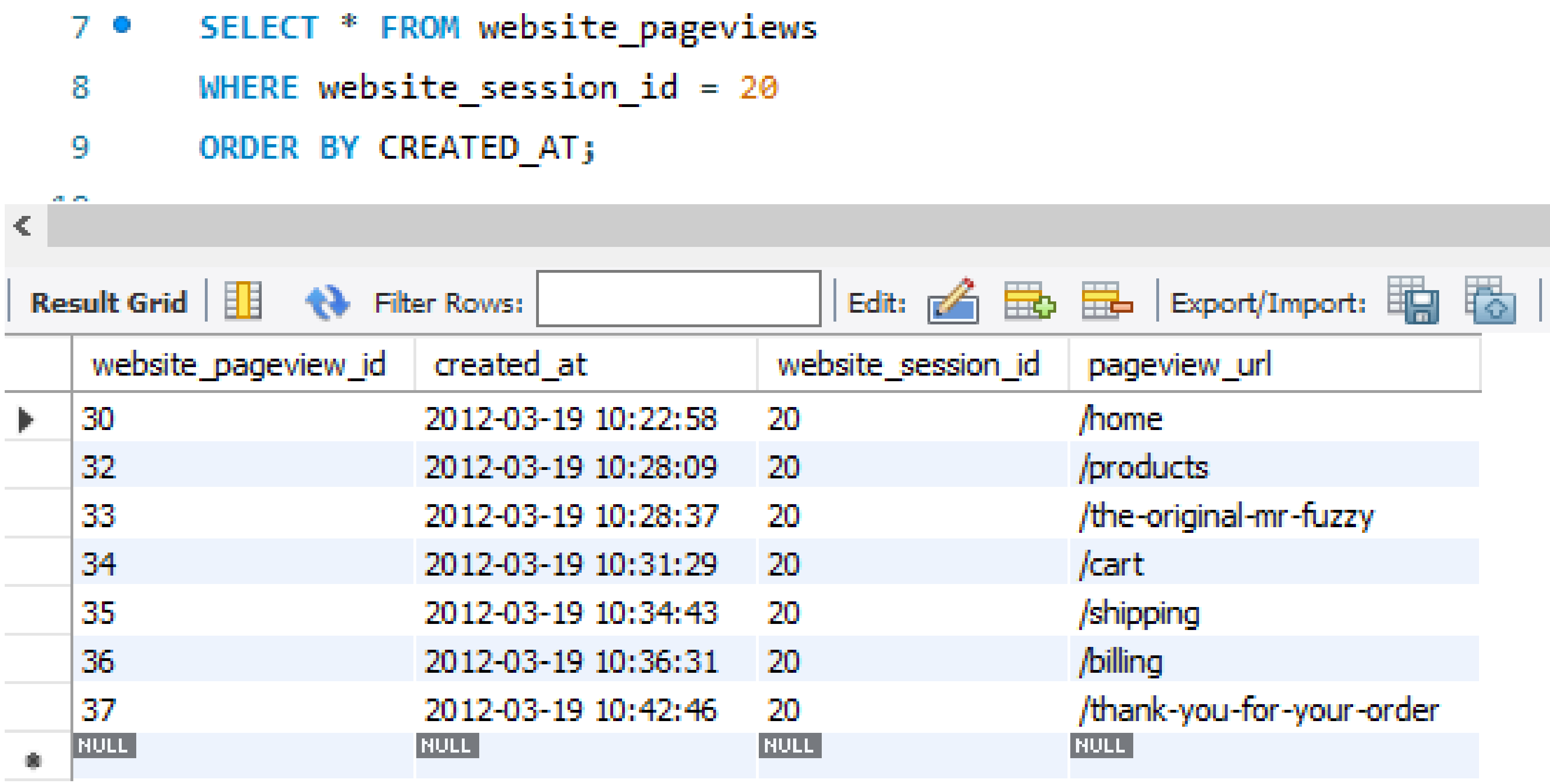


```
USE MAVENFUZZYFACTORY;
-- 01. View first 10 orders table item
SELECT * FROM mavenfuzzyfactory.orders
LIMIT 10;
```

order_id	created_at	website_session_id	user_id	primary_product_id	items_purchased	price_usd	cogs_usd
1	2012-03-19 10:42:46	20	20	1	1	49.99	19.49
2	2012-03-19 19:27:37	104	104	1	1	49.99	19.49
3	2012-03-20 06:44:45	147	147	1	1	49.99	19.49
4	2012-03-20 09:41:45	160	160	1	1	49.99	19.49
5	2012-03-20 11:28:15	177	177	1	1	49.99	19.49
6	2012-03-20 16:12:47	232	232	1	1	49.99	19.49
7	2012-03-20 17:03:41	241	241	1	1	49.99	19.49
8	2012-03-20 23:35:27	295	295	1	1	49.99	19.49
9	2012-03-21 02:35:01	304	304	1	1	49.99	19.49
10	2012-03-21 06:45:58	317	317	1	1	49.99	19.49
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

View the First 10 orders from Order Table

Problem 02 : Website session id 20, which type of page visited

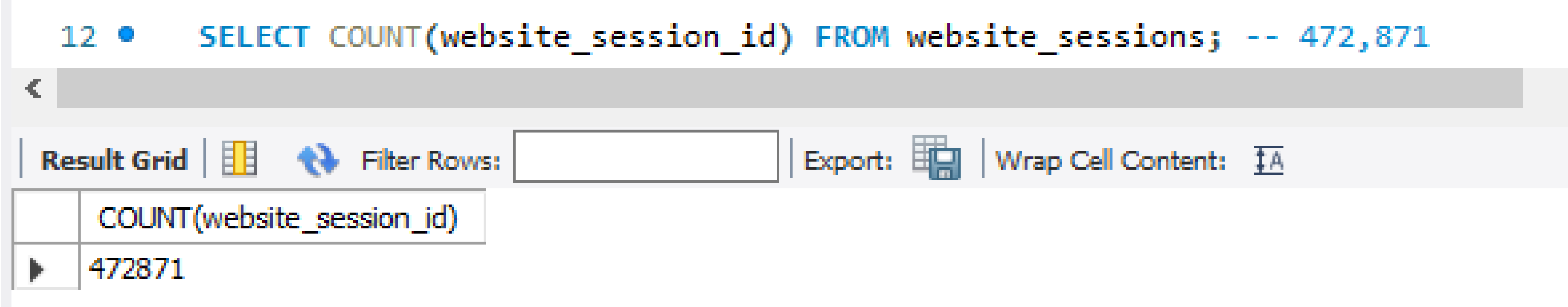


```sql
SELECT * FROM website_pageviews
WHERE website_session_id = 20
ORDER BY CREATED_AT;
```

website_pageview_id	created_at	website_session_id	pageview_url
30	2012-03-19 10:22:58	20	/home
32	2012-03-19 10:28:09	20	/products
33	2012-03-19 10:28:37	20	/the-original-mr-fuzzy
34	2012-03-19 10:31:29	20	/cart
35	2012-03-19 10:34:43	20	/shipping
36	2012-03-19 10:36:31	20	/billing
37	2012-03-19 10:42:46	20	/thank-you-for-your-order
NULL	NULL	NULL	NULL

Website Visitor 20, he /she visited 7 different type of page .

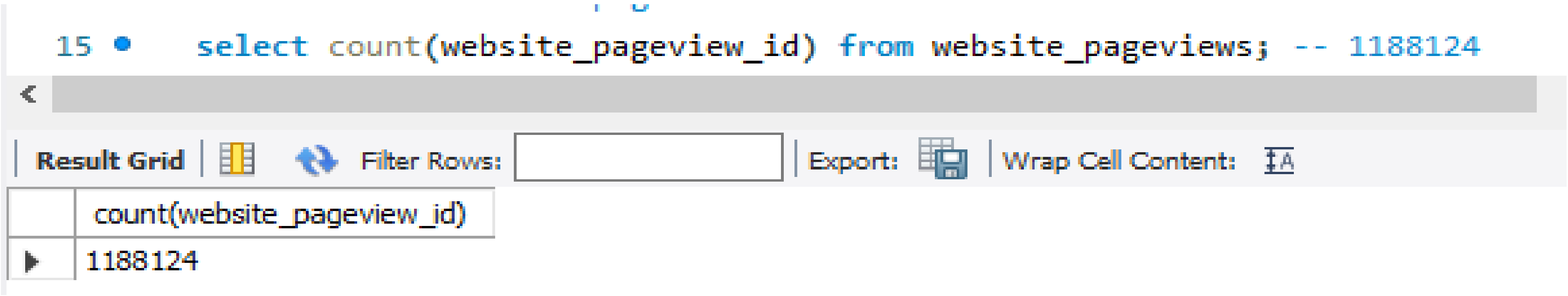
Problem 03 : Total website sessions



```sql
SELECT COUNT(website_session_id) FROM website_sessions; -- 472,871
```

```
COUNT(website_session_id)
472871
```

Problem 04: Total website page view

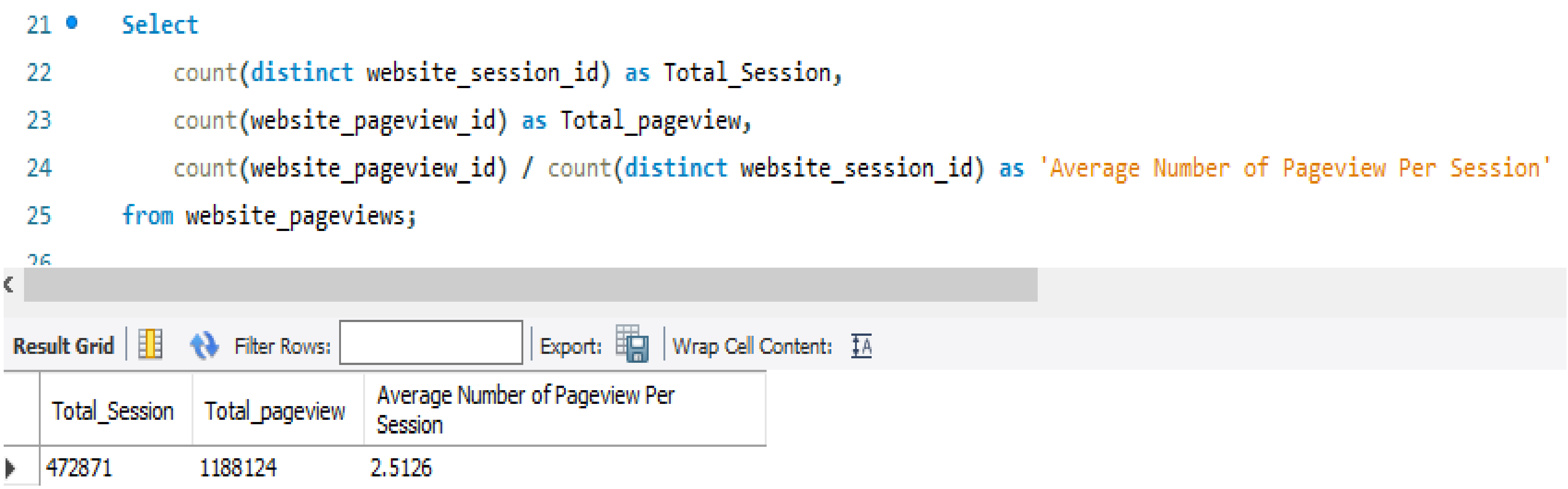


```sql
select count(website_pageview_id) from website_pageviews; -- 1188124
```

```
count(website_pageview_id)
1188124
```

We find total 472,871 website sessions. And 11,88124 total website page view

Problem 05 : Find the Average Number of pageview per Session

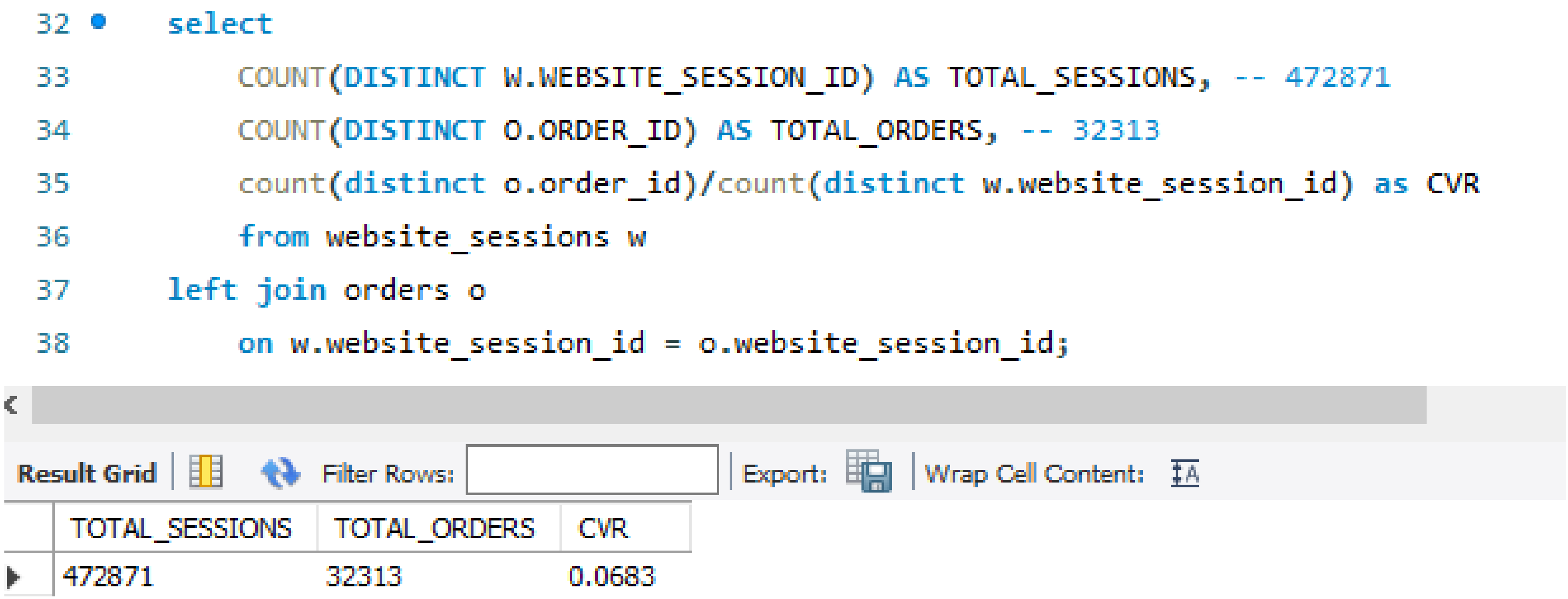


```sql
Select
    count(distinct website_session_id) as Total_Session,
    count(website_pageview_id) as Total_pageview,
    count(website_pageview_id) / count(distinct website_session_id) as 'Average Number of Pageview Per Session'
from website_pageviews;
```

Total_Session	Total_pageview	Average Number of Pageview Per Session
472871	1188124	2.5126

In this analysis , we find the 2.5126 Average Number of Pageview Per Session.

Problem 06 : Find the Conversion Rate (CVR): TOTAL ORDERS/TOTAL SESSIONS

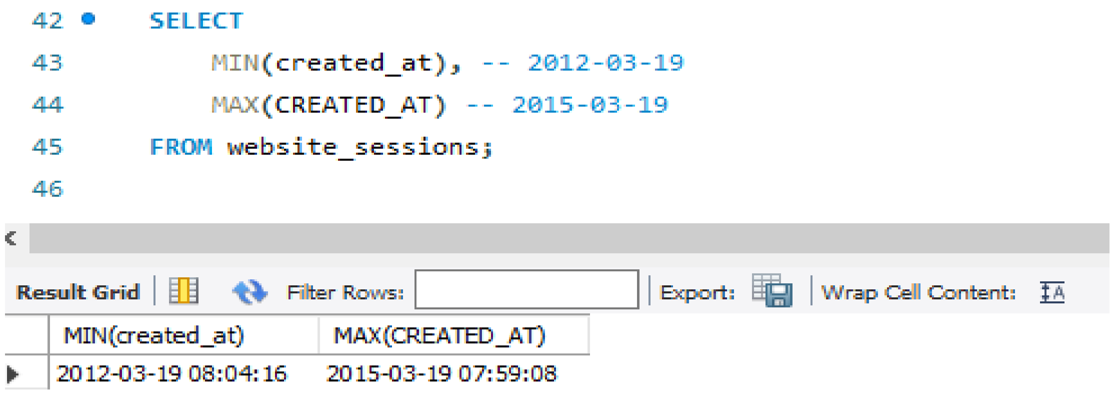


```sql
select
    COUNT(DISTINCT W.WEBSITE_SESSION_ID) AS TOTAL_SESSIONS, -- 472871
    COUNT(DISTINCT O.ORDER_ID) AS TOTAL_ORDERS, -- 32313
    count(distinct o.order_id)/count(distinct w.website_session_id) as CVR
    from website_sessions w
left join orders o
    on w.website_session_id = o.website_session_id;
```

TOTAL_SESSIONS	TOTAL_ORDERS	CVR
472871	32313	0.0683

In this analysis , we find 472871 Total sessions, 32313 in Total Orders. Now we find the Conversion Rate(CVR) 0.0683. The CVR we define Total Orders/ Total Sessions

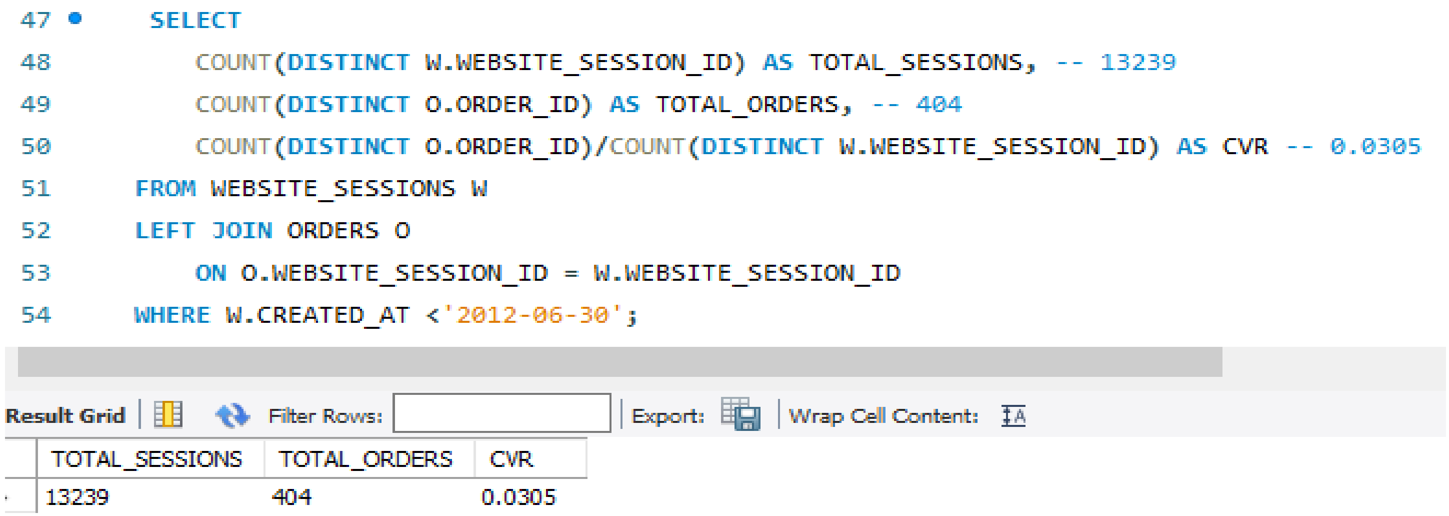
Problem 07 : Find the MIN & MAX Website Sessions Created



```
SELECT
    MIN(created_at), -- 2012-03-19
    MAX(CREATED_AT) -- 2015-03-19
FROM website_sessions;
```

MIN(created_at)	MAX(CREATED_AT)
2012-03-19 08:04:16	2015-03-19 07:59:08

Problem 08: Find the Conversion Rate (CVR) before 2012-06-30

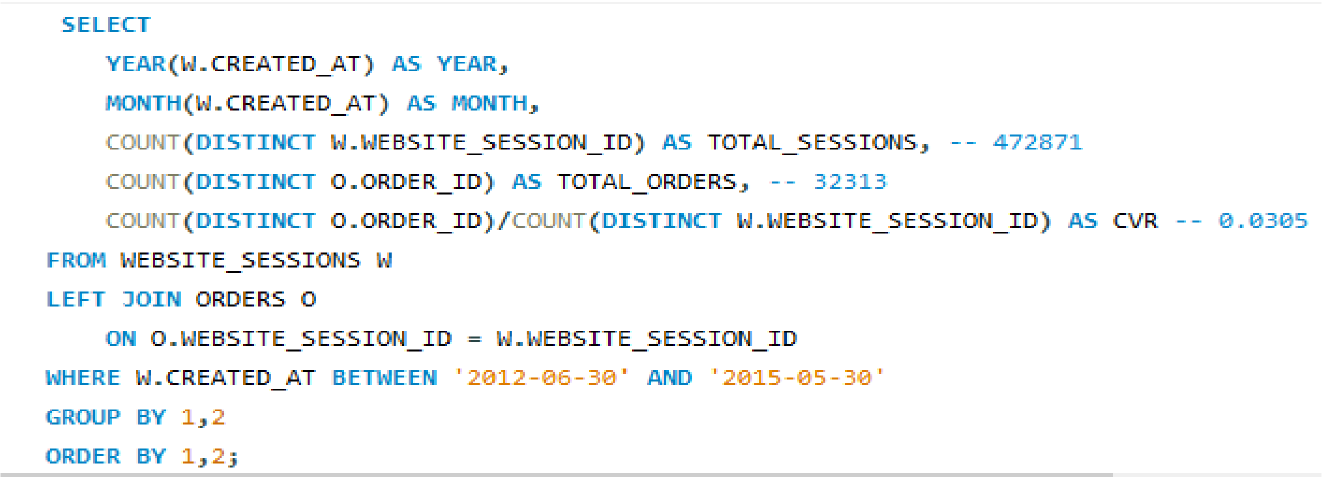


```
SELECT
    COUNT(DISTINCT W.WEBSITE_SESSION_ID) AS TOTAL_SESSIONS, -- 13239
    COUNT(DISTINCT O.ORDER_ID) AS TOTAL_ORDERS, -- 404
    COUNT(DISTINCT O.ORDER_ID)/COUNT(DISTINCT W.WEBSITE_SESSION_ID) AS CVR -- 0.0305
FROM WEBSITE_SESSIONS W
LEFT JOIN ORDERS O
    ON O.WEBSITE_SESSION_ID = W.WEBSITE_SESSION_ID
WHERE W.CREATED_AT <'2012-06-30';
```

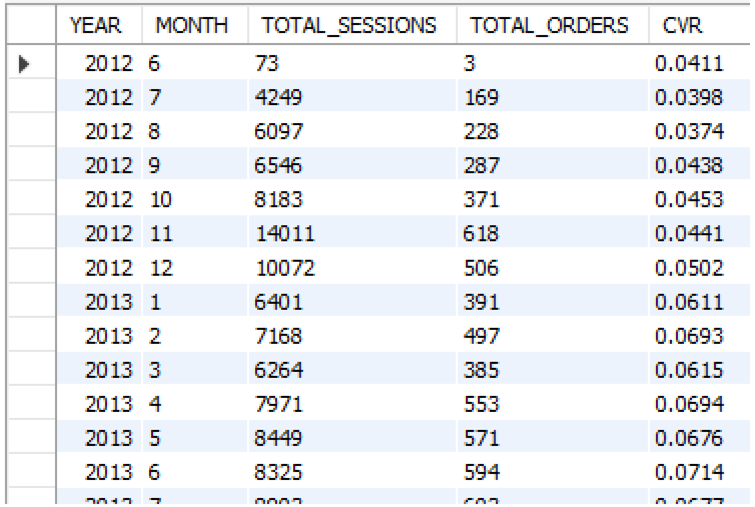
TOTAL_SESSIONS	TOTAL_ORDERS	CVR
13239	404	0.0305

This Analysis we find 2012-03-19 is first website session created at and last session is created at in 2015-03-19. The other analysis we find total session 13239, total order is 404 and CVR is 0.0305 before 2012-06-30

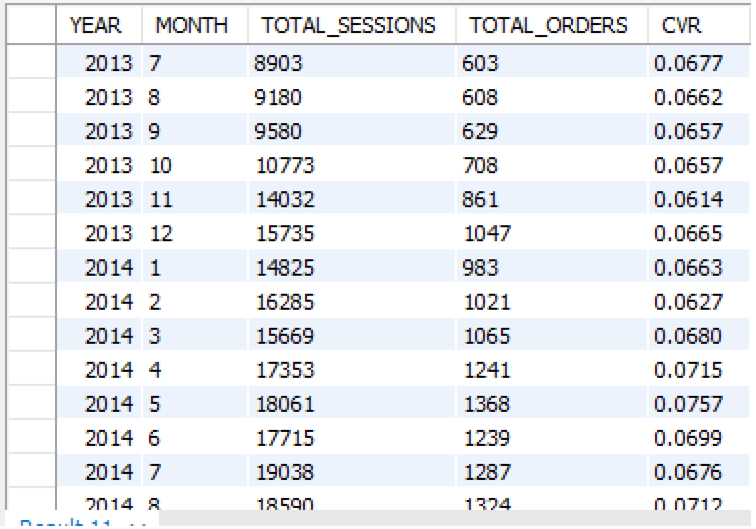
Problem 09: Month & Year wise CVR between 2012 to 2015



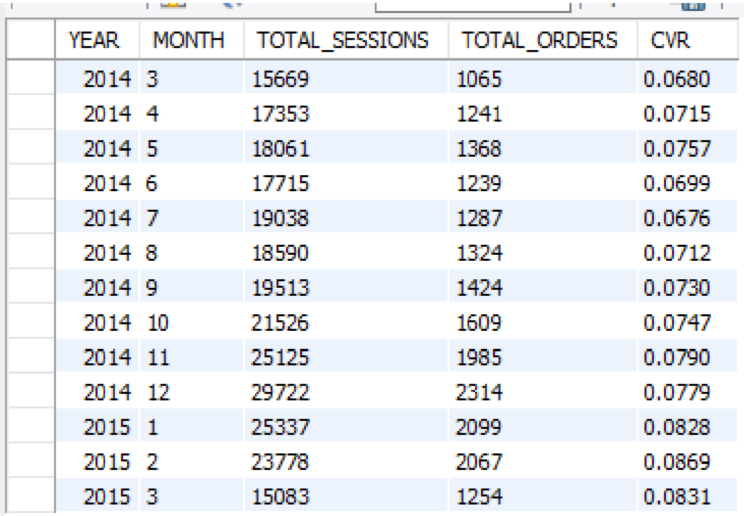
```
 SELECT
    YEAR(W.CREATED_AT) AS YEAR,
    MONTH(W.CREATED_AT) AS MONTH,
    COUNT(DISTINCT W.WEBSITE_SESSION_ID) AS TOTAL_SESSIONS, -- 472871
    COUNT(DISTINCT O.ORDER_ID) AS TOTAL_ORDERS, -- 32313
    COUNT(DISTINCT O.ORDER_ID)/COUNT(DISTINCT W.WEBSITE_SESSION_ID) AS CVR -- 0.0305
FROM WEBSITE_SESSIONS W
LEFT JOIN ORDERS O
    ON O.WEBSITE_SESSION_ID = W.WEBSITE_SESSION_ID
WHERE W.CREATED_AT BETWEEN '2012-06-30' AND '2015-05-30'
GROUP BY 1,2
ORDER BY 1,2;
```



YEAR	MONTH	TOTAL_SESSIONS	TOTAL_ORDERS	CVR
2012	6	73	3	0.0411
2012	7	4249	169	0.0398
2012	8	6097	228	0.0374
2012	9	6546	287	0.0438
2012	10	8183	371	0.0453
2012	11	14011	618	0.0441
2012	12	10072	506	0.0502
2013	1	6401	391	0.0611
2013	2	7168	497	0.0693
2013	3	6264	385	0.0615
2013	4	7971	553	0.0694
2013	5	8449	571	0.0676
2013	6	8325	594	0.0714
2013	7	8903	603	0.0677



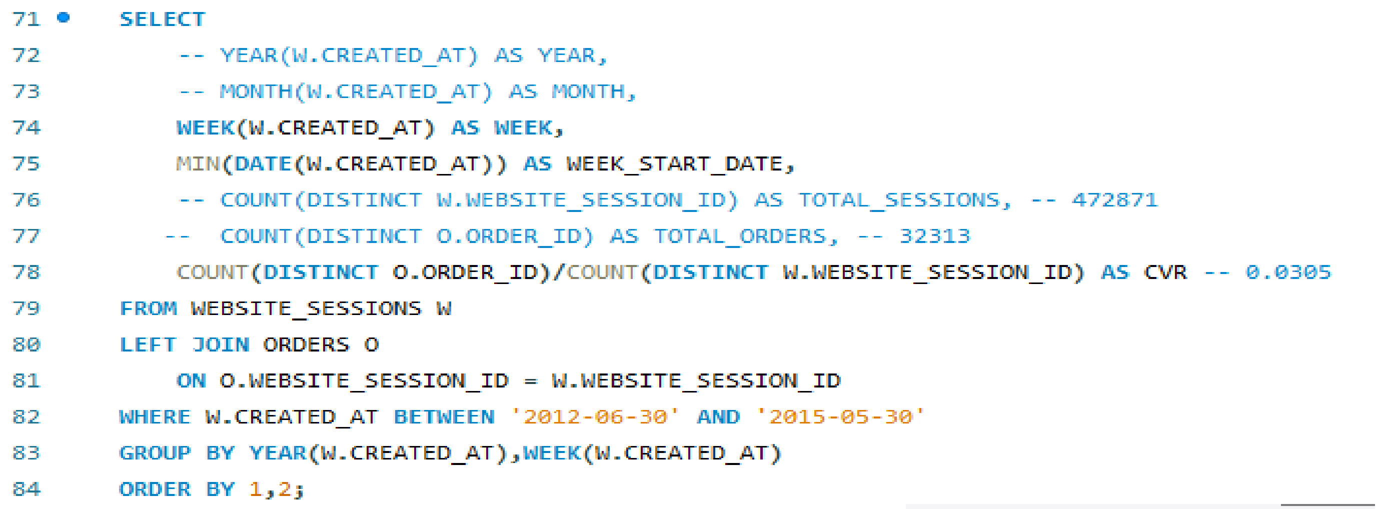
YEAR	MONTH	TOTAL_SESSIONS	TOTAL_ORDERS	CVR
2013	7	8903	603	0.0677
2013	8	9180	608	0.0662
2013	9	9580	629	0.0657
2013	10	10773	708	0.0657
2013	11	14032	861	0.0614
2013	12	15735	1047	0.0665
2014	1	14825	983	0.0663
2014	2	16285	1021	0.0627
2014	3	15669	1065	0.0680
2014	4	17353	1241	0.0715
2014	5	18061	1368	0.0757
2014	6	17715	1239	0.0699
2014	7	19038	1287	0.0676
2014	8	18590	1324	0.0712



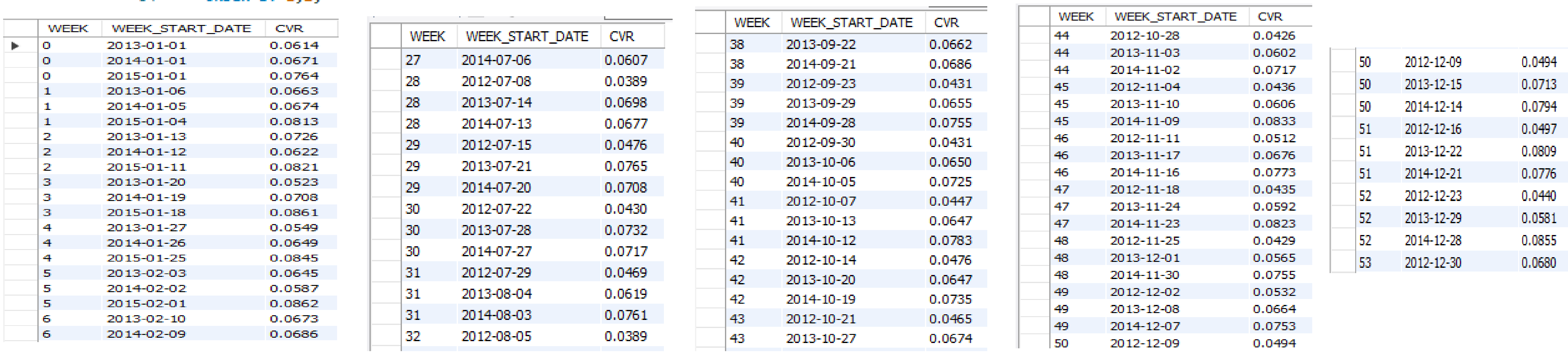
YEAR	MONTH	TOTAL_SESSIONS	TOTAL_ORDERS	CVR
2014	3	15669	1065	0.0680
2014	4	17353	1241	0.0715
2014	5	18061	1368	0.0757
2014	6	17715	1239	0.0699
2014	7	19038	1287	0.0676
2014	8	18590	1324	0.0712
2014	9	19513	1424	0.0730
2014	10	21526	1609	0.0747
2014	11	25125	1985	0.0790
2014	12	29722	2314	0.0779
2015	1	25337	2099	0.0828
2015	2	23778	2067	0.0869
2015	3	15083	1254	0.0831

In this analysis , we easily see the month & yearly wise total session and orders. And also See the CVR in every month & year easily.

Problem 10: Find the CVR in weekly wise



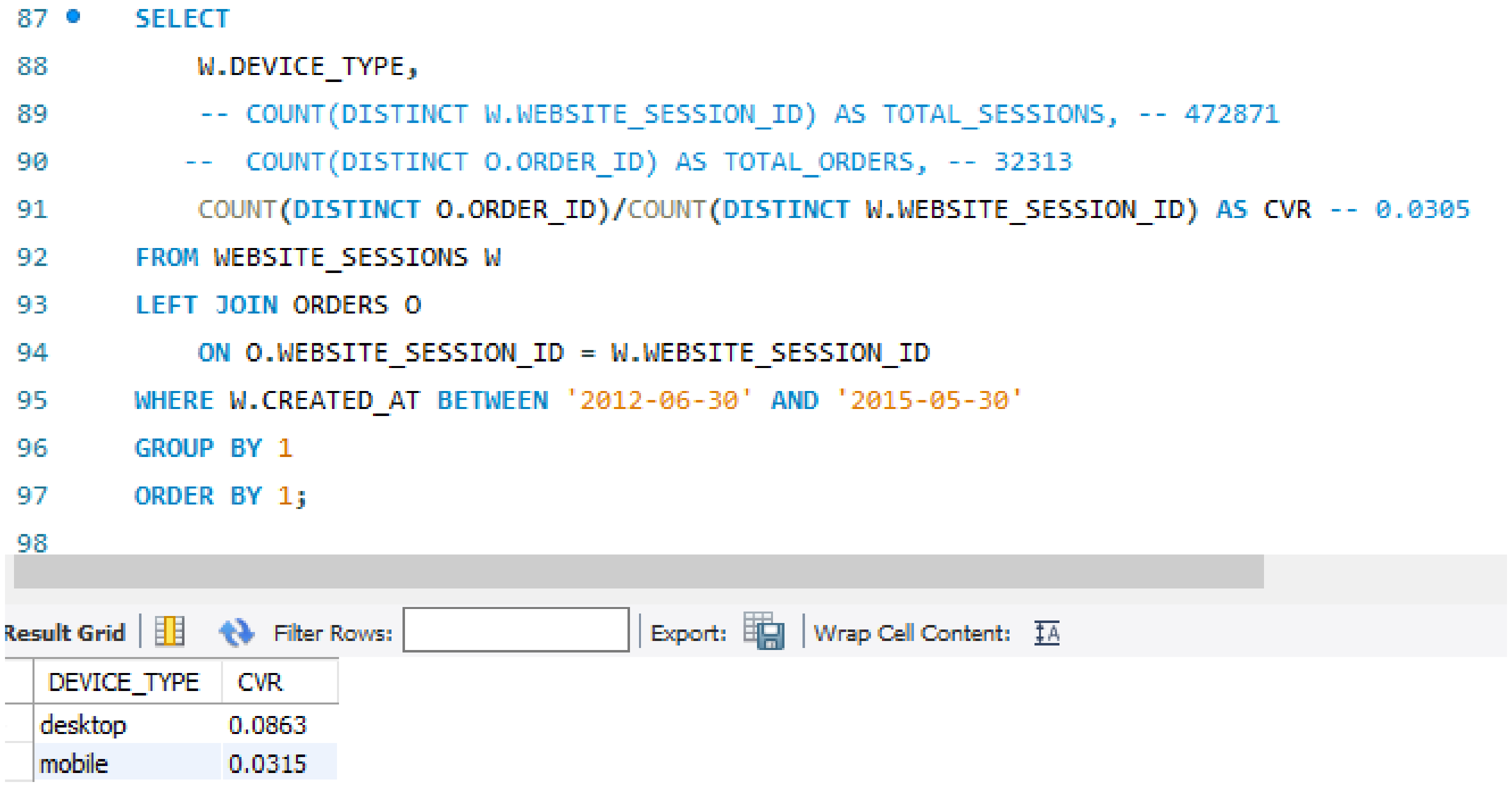
```
SELECT
    -- YEAR(W.CREATED_AT) AS YEAR,
    -- MONTH(W.CREATED_AT) AS MONTH,
    WEEK(W.CREATED_AT) AS WEEK,
    MIN(DATE(W.CREATED_AT)) AS WEEK_START_DATE,
    -- COUNT(DISTINCT W.WEBSITE_SESSION_ID) AS TOTAL_SESSIONS, -- 472871
   --  COUNT(DISTINCT O.ORDER_ID) AS TOTAL_ORDERS, -- 32313
    COUNT(DISTINCT O.ORDER_ID)/COUNT(DISTINCT W.WEBSITE_SESSION_ID) AS CVR -- 0.0305
FROM WEBSITE_SESSIONS W
LEFT JOIN ORDERS O
    ON O.WEBSITE_SESSION_ID = W.WEBSITE_SESSION_ID
WHERE W.CREATED_AT BETWEEN '2012-06-30' AND '2015-05-30'
GROUP BY YEAR(W.CREATED_AT),WEEK(W.CREATED_AT)
ORDER BY 1,2;
```



WEEK	WEEK_START_DATE	CVR
0	2013-01-01	0.0614
0	2014-01-01	0.0671
0	2015-01-01	0.0764
1	2013-01-06	0.0663
1	2014-01-05	0.0674
1	2015-01-04	0.0813
2	2013-01-13	0.0726
2	2014-01-12	0.0622
2	2015-01-11	0.0821
3	2013-01-20	0.0523
3	2014-01-19	0.0708
3	2015-01-18	0.0861
4	2013-01-27	0.0549
4	2014-01-26	0.0649
4	2015-01-25	0.0845
5	2013-02-03	0.0645
5	2014-02-02	0.0587
5	2015-02-01	0.0862
6	2013-02-10	0.0673
6	2014-02-09	0.0686
27	2014-07-06	0.0607
28	2012-07-08	0.0389
28	2013-07-14	0.0698
28	2014-07-13	0.0677
29	2012-07-15	0.0476
29	2013-07-21	0.0765
29	2014-07-20	0.0708
30	2012-07-22	0.0430
30	2013-07-28	0.0732
30	2014-07-27	0.0717
31	2012-07-29	0.0469
31	2013-08-04	0.0619
31	2014-08-03	0.0761
32	2012-08-05	0.0389
38	2013-09-22	0.0662
38	2014-09-21	0.0686
39	2012-09-23	0.0431
39	2013-09-29	0.0655
39	2014-09-28	0.0755
40	2012-09-30	0.0431
40	2013-10-06	0.0650
40	2014-10-05	0.0725
41	2012-10-07	0.0447
41	2013-10-13	0.0647
41	2014-10-12	0.0783
42	2012-10-14	0.0476
42	2013-10-20	0.0647
42	2014-10-19	0.0735
43	2012-10-21	0.0465
43	2013-10-27	0.0674
44	2012-10-28	0.0426
44	2013-11-03	0.0602
44	2014-11-02	0.0717
45	2012-11-04	0.0436
45	2013-11-10	0.0606
45	2014-11-09	0.0833
46	2012-11-11	0.0512
46	2013-11-17	0.0676
46	2014-11-16	0.0773
47	2012-11-18	0.0435
47	2013-11-24	0.0592
47	2014-11-23	0.0823
48	2012-11-25	0.0429
48	2013-12-01	0.0565
48	2014-11-30	0.0755
49	2012-12-02	0.0532
49	2013-12-08	0.0664
49	2014-12-07	0.0753
50	2012-12-09	0.0494
50	2012-12-09	0.0494
50	2013-12-15	0.0713
50	2014-12-14	0.0794
51	2012-12-16	0.0497
51	2013-12-22	0.0809
51	2014-12-21	0.0776
52	2012-12-23	0.0440
52	2013-12-29	0.0581
52	2014-12-28	0.0855
53	2012-12-30	0.0680

In that analysis, We see the every weak CVR and also see the weak start date easily

Problem 11 : Find The CVR Based on Device Type

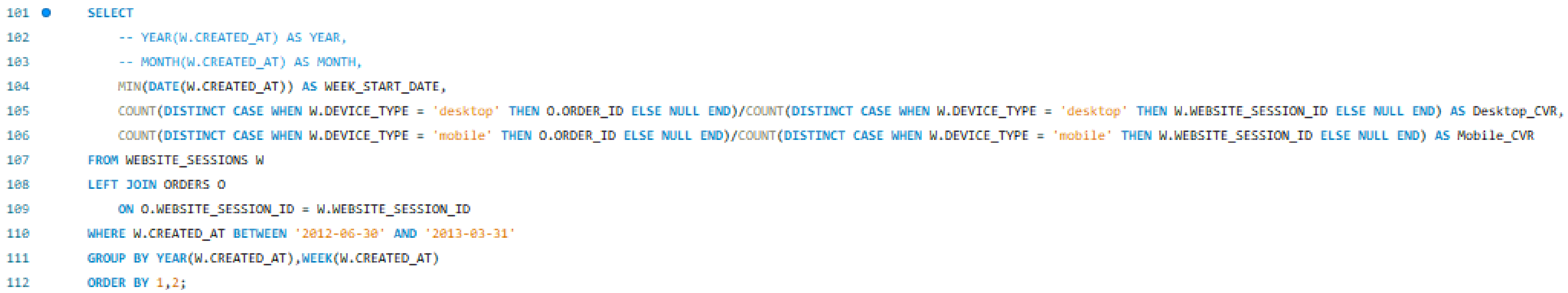


```sql
SELECT
    W.DEVICE_TYPE,
    -- COUNT(DISTINCT W.WEBSITE_SESSION_ID) AS TOTAL_SESSIONS, -- 472871
   --  COUNT(DISTINCT O.ORDER_ID) AS TOTAL_ORDERS, -- 32313
    COUNT(DISTINCT O.ORDER_ID)/COUNT(DISTINCT W.WEBSITE_SESSION_ID) AS CVR -- 0.0305
FROM WEBSITE_SESSIONS W
LEFT JOIN ORDERS O
    ON O.WEBSITE_SESSION_ID = W.WEBSITE_SESSION_ID
WHERE W.CREATED_AT BETWEEN '2012-06-30' AND '2015-05-30'
GROUP BY 1
ORDER BY 1;
```

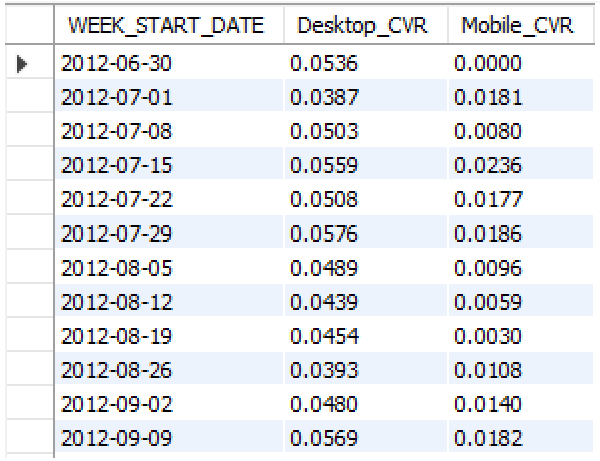
DEVICE_TYPE	CVR
desktop	0.0863
mobile	0.0315

This Analysis, we find Desktop total CVR is 0.0863 and mobile is 0.0315

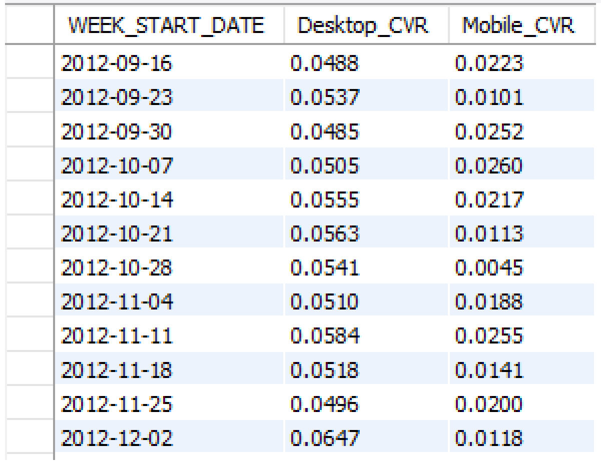
Problem 12: Find the Desktop & Mobile CVR in Every Weakly Wise



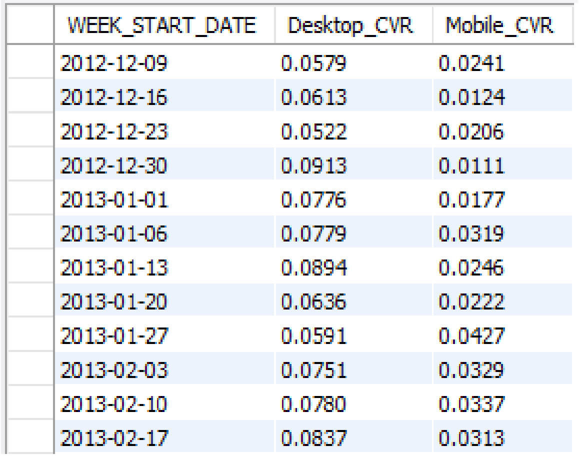
```
SELECT
    -- YEAR(W.CREATED_AT) AS YEAR,
    -- MONTH(W.CREATED_AT) AS MONTH,
    MIN(DATE(W.CREATED_AT)) AS WEEK_START_DATE,
    COUNT(DISTINCT CASE WHEN W.DEVICE_TYPE = 'desktop' THEN O.ORDER_ID ELSE NULL END)/COUNT(DISTINCT CASE WHEN W.DEVICE_TYPE = 'desktop' THEN W.WEBSITE_SESSION_ID ELSE NULL END) AS Desktop_CVR,
    COUNT(DISTINCT CASE WHEN W.DEVICE_TYPE = 'mobile' THEN O.ORDER_ID ELSE NULL END)/COUNT(DISTINCT CASE WHEN W.DEVICE_TYPE = 'mobile' THEN W.WEBSITE_SESSION_ID ELSE NULL END) AS Mobile_CVR
FROM WEBSITE_SESSIONS W
LEFT JOIN ORDERS O
    ON O.WEBSITE_SESSION_ID = W.WEBSITE_SESSION_ID
WHERE W.CREATED_AT BETWEEN '2012-06-30' AND '2013-03-31'
GROUP BY YEAR(W.CREATED_AT),WEEK(W.CREATED_AT)
ORDER BY 1,2;
```



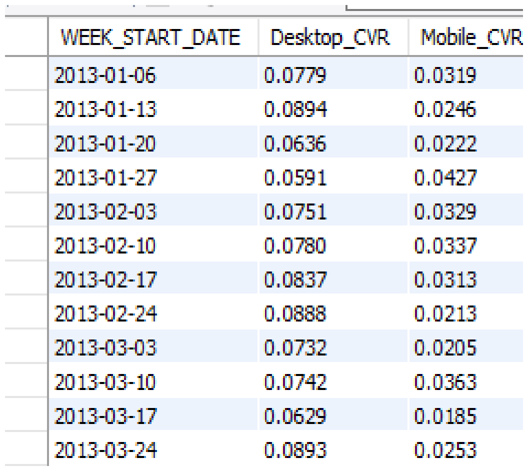
WEEK_START_DATE	Desktop_CVR	Mobile_CVR
2012-06-30	0.0536	0.0000
2012-07-01	0.0387	0.0181
2012-07-08	0.0503	0.0080
2012-07-15	0.0559	0.0236
2012-07-22	0.0508	0.0177
2012-07-29	0.0576	0.0186
2012-08-05	0.0489	0.0096
2012-08-12	0.0439	0.0059
2012-08-19	0.0454	0.0030
2012-08-26	0.0393	0.0108
2012-09-02	0.0480	0.0140
2012-09-09	0.0569	0.0182



WEEK_START_DATE	Desktop_CVR	Mobile_CVR
2012-09-16	0.0488	0.0223
2012-09-23	0.0537	0.0101
2012-09-30	0.0485	0.0252
2012-10-07	0.0505	0.0260
2012-10-14	0.0555	0.0217
2012-10-21	0.0563	0.0113
2012-10-28	0.0541	0.0045
2012-11-04	0.0510	0.0188
2012-11-11	0.0584	0.0255
2012-11-18	0.0518	0.0141
2012-11-25	0.0496	0.0200
2012-12-02	0.0647	0.0118



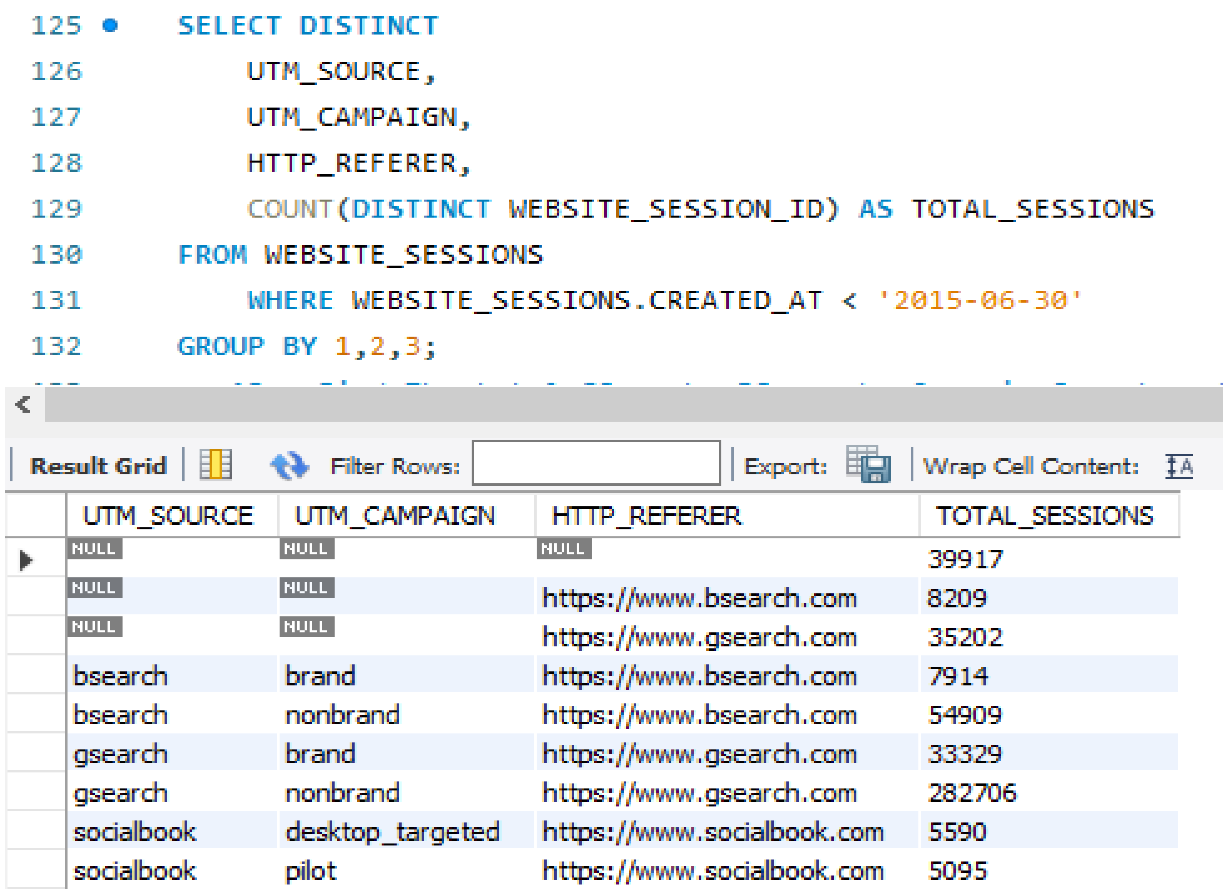
WEEK_START_DATE	Desktop_CVR	Mobile_CVR
2012-12-09	0.0579	0.0241
2012-12-16	0.0613	0.0124
2012-12-23	0.0522	0.0206
2012-12-30	0.0913	0.0111
2013-01-01	0.0776	0.0177
2013-01-06	0.0779	0.0319
2013-01-13	0.0894	0.0246
2013-01-20	0.0636	0.0222
2013-01-27	0.0591	0.0427
2013-02-03	0.0751	0.0329
2013-02-10	0.0780	0.0337
2013-02-17	0.0837	0.0313



WEEK_START_DATE	Desktop_CVR	Mobile_CVR
2013-01-06	0.0779	0.0319
2013-01-13	0.0894	0.0246
2013-01-20	0.0636	0.0222
2013-01-27	0.0591	0.0427
2013-02-03	0.0751	0.0329
2013-02-10	0.0780	0.0337
2013-02-17	0.0837	0.0313
2013-02-24	0.0888	0.0213
2013-03-03	0.0732	0.0205
2013-03-10	0.0742	0.0363
2013-03-17	0.0629	0.0185
2013-03-24	0.0893	0.0253

In that analysis, We see the every weakly wise Desktop & Mobile CVR and also see the weak start date easily

Problem 13 : Site Traffic Breakdown by UTM_SOURCE, UTM_CAMPAIGN, HTTTP_REFERER & Total Sessions

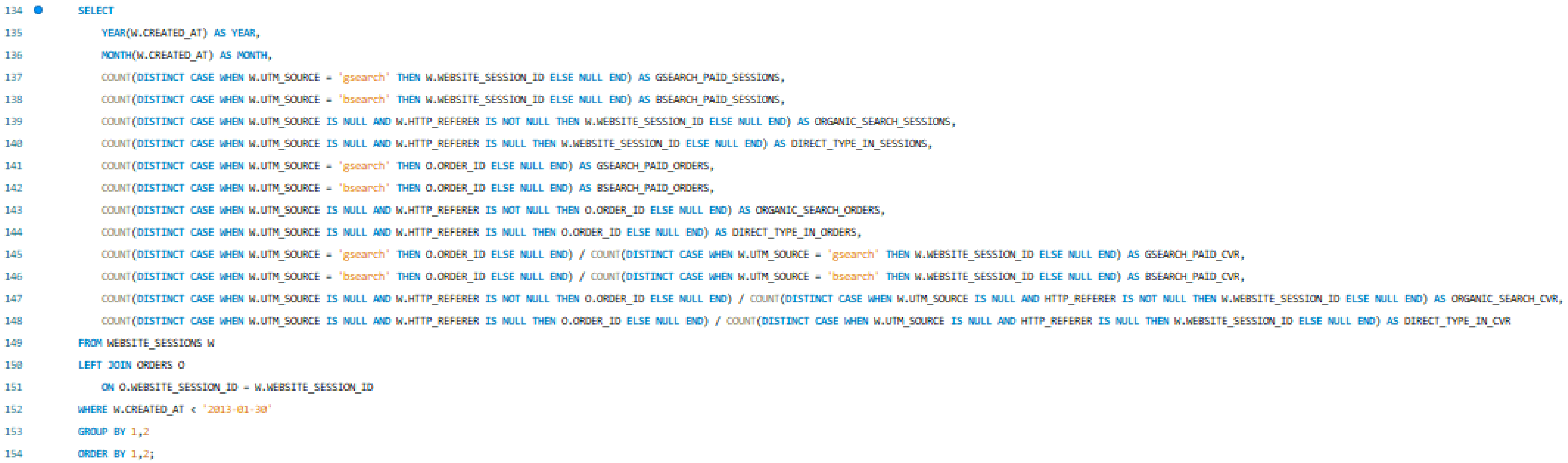


```sql
SELECT DISTINCT
    UTM_SOURCE,
    UTM_CAMPAIGN,
    HTTP_REFERER,
    COUNT(DISTINCT WEBSITE_SESSION_ID) AS TOTAL_SESSIONS
FROM WEBSITE_SESSIONS
    WHERE WEBSITE_SESSIONS.CREATED_AT < '2015-06-30'
GROUP BY 1,2,3;
```

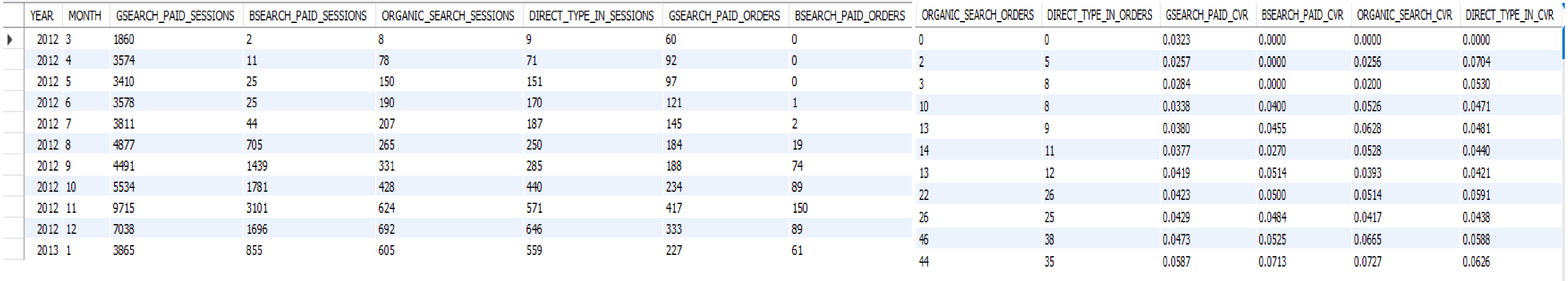
UTM_SOURCE	UTM_CAMPAIGN	HTTP_REFERER	TOTAL_SESSIONS
NULL	NULL	NULL	39917
NULL	NULL	https://www.bsearch.com	8209
NULL	NULL	https://www.gsearch.com	35202
bsearch	brand	https://www.bsearch.com	7914
bsearch	nonbrand	https://www.bsearch.com	54909
gsearch	brand	https://www.gsearch.com	33329
gsearch	nonbrand	https://www.gsearch.com	282706
socialbook	desktop_targeted	https://www.socialbook.com	5590
socialbook	pilot	https://www.socialbook.com	5095

This Analysis, we find the Site Traffic Breakdown by UTM_SOURCE, UTM_CAMPAIGN, HTTTP_REFERER & Total Sessions

Problem 14: Find The total GSearch, BSeasrch, Organic Search and others search based on every year and monthly wise & Also find the CVR based on search type

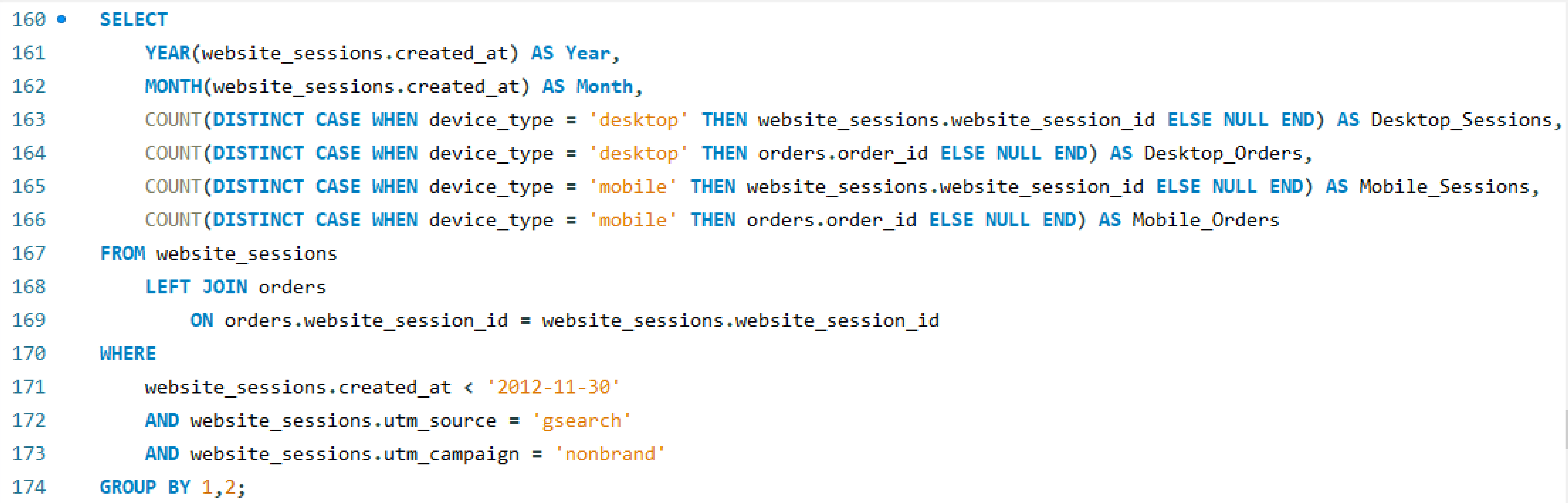


```sql
SELECT
    YEAR(W.CREATED_AT) AS YEAR,
    MONTH(W.CREATED_AT) AS MONTH,
    COUNT(DISTINCT CASE WHEN W.UTM_SOURCE = 'gsearch' THEN W.WEBSITE_SESSION_ID ELSE NULL END) AS GSEARCH_PAID_SESSIONS,
    COUNT(DISTINCT CASE WHEN W.UTM_SOURCE = 'bsearch' THEN W.WEBSITE_SESSION_ID ELSE NULL END) AS BSEARCH_PAID_SESSIONS,
    COUNT(DISTINCT CASE WHEN W.UTM_SOURCE IS NULL AND W.HTTP_REFERER IS NOT NULL THEN W.WEBSITE_SESSION_ID ELSE NULL END) AS ORGANIC_SEARCH_SESSIONS,
    COUNT(DISTINCT CASE WHEN W.UTM_SOURCE IS NULL AND W.HTTP_REFERER IS NULL THEN W.WEBSITE_SESSION_ID ELSE NULL END) AS DIRECT_TYPE_IN_SESSIONS,
    COUNT(DISTINCT CASE WHEN W.UTM_SOURCE = 'gsearch' THEN O.ORDER_ID ELSE NULL END) AS GSEARCH_PAID_ORDERS,
    COUNT(DISTINCT CASE WHEN W.UTM_SOURCE = 'bsearch' THEN O.ORDER_ID ELSE NULL END) AS BSEARCH_PAID_ORDERS,
    COUNT(DISTINCT CASE WHEN W.UTM_SOURCE IS NULL AND W.HTTP_REFERER IS NOT NULL THEN O.ORDER_ID ELSE NULL END) AS ORGANIC_SEARCH_ORDERS,
    COUNT(DISTINCT CASE WHEN W.UTM_SOURCE IS NULL AND W.HTTP_REFERER IS NULL THEN O.ORDER_ID ELSE NULL END) AS DIRECT_TYPE_IN_ORDERS,
    COUNT(DISTINCT CASE WHEN W.UTM_SOURCE = 'gsearch' THEN O.ORDER_ID ELSE NULL END) / COUNT(DISTINCT CASE WHEN W.UTM_SOURCE = 'gsearch' THEN W.WEBSITE_SESSION_ID ELSE NULL END) AS GSEARCH_PAID_CVR,
    COUNT(DISTINCT CASE WHEN W.UTM_SOURCE = 'bsearch' THEN O.ORDER_ID ELSE NULL END) / COUNT(DISTINCT CASE WHEN W.UTM_SOURCE = 'bsearch' THEN W.WEBSITE_SESSION_ID ELSE NULL END) AS BSEARCH_PAID_CVR,
    COUNT(DISTINCT CASE WHEN W.UTM_SOURCE IS NULL AND W.HTTP_REFERER IS NOT NULL THEN O.ORDER_ID ELSE NULL END) / COUNT(DISTINCT CASE WHEN W.UTM_SOURCE IS NULL AND HTTP_REFERER IS NOT NULL THEN W.WEBSITE_SESSION_ID ELSE NULL END) AS ORGANIC_SEARCH_CVR,
    COUNT(DISTINCT CASE WHEN W.UTM_SOURCE IS NULL AND W.HTTP_REFERER IS NULL THEN O.ORDER_ID ELSE NULL END) / COUNT(DISTINCT CASE WHEN W.UTM_SOURCE IS NULL AND HTTP_REFERER IS NULL THEN W.WEBSITE_SESSION_ID ELSE NULL END) AS DIRECT_TYPE_IN_CVR
FROM WEBSITE_SESSIONS W
LEFT JOIN ORDERS O
    ON O.WEBSITE_SESSION_ID = W.WEBSITE_SESSION_ID
WHERE W.CREATED_AT < '2013-01-30'
GROUP BY 1,2
ORDER BY 1,2;
```

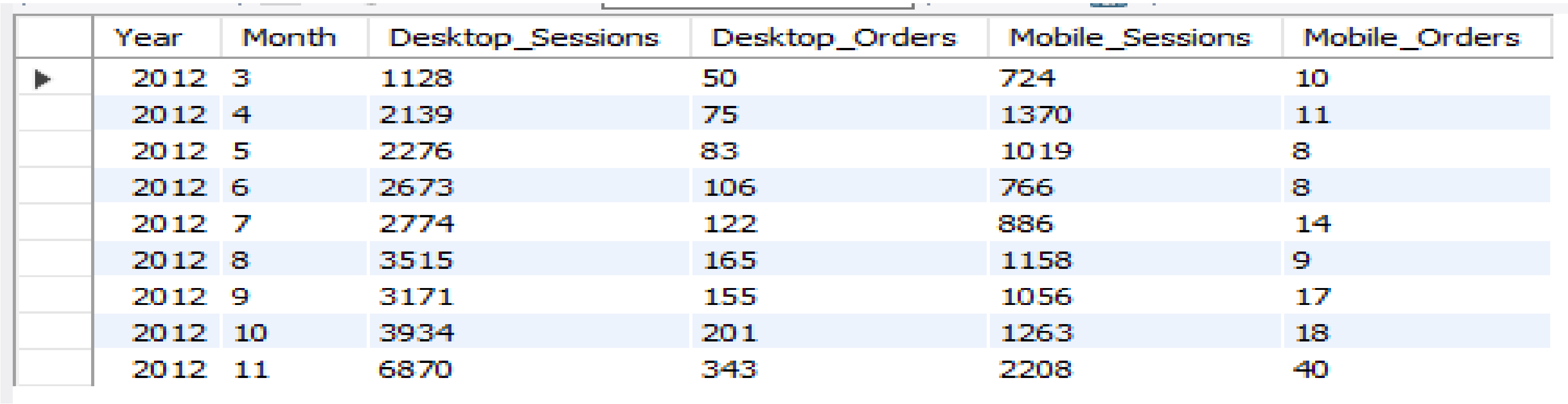


YEAR	MONTH	GSEARCH_PAID_SESSIONS	BSEARCH_PAID_SESSIONS	ORGANIC_SEARCH_SESSIONS	DIRECT_TYPE_IN_SESSIONS	GSEARCH_PAID_ORDERS	BSEARCH_PAID_ORDERS	ORGANIC_SEARCH_ORDERS	DIRECT_TYPE_IN_ORDERS	GSEARCH_PAID_CVR	BSEARCH_PAID_CVR	ORGANIC_SEARCH_CVR	DIRECT_TYPE_IN_CVR
2012	3	1860	2	8	9	60	0	0	0	0.0323	0.0000	0.0000	0.0000
2012	4	3574	11	78	71	92	0	2	5	0.0257	0.0000	0.0256	0.0704
2012	5	3410	25	150	151	97	0	3	8	0.0284	0.0000	0.0200	0.0530
2012	6	3578	25	190	170	121	1	10	8	0.0338	0.0400	0.0526	0.0471
2012	7	3811	44	207	187	145	2	13	9	0.0380	0.0455	0.0628	0.0481
2012	8	4877	705	265	250	184	19	14	11	0.0377	0.0270	0.0528	0.0440
2012	9	4491	1439	331	285	188	74	13	12	0.0419	0.0514	0.0393	0.0421
2012	10	5534	1781	428	440	234	89	22	26	0.0423	0.0500	0.0514	0.0591
2012	11	9715	3101	624	571	417	150	26	25	0.0429	0.0484	0.0417	0.0438
2012	12	7038	1696	692	646	333	89	46	38	0.0473	0.0525	0.0665	0.0588
2013	1	3865	855	605	559	227	61	44	35	0.0587	0.0713	0.0727	0.0626

Problem 15: 'gsearch' and 'nonbrand' mobile vs desktop performance (session/conversion) comparison.

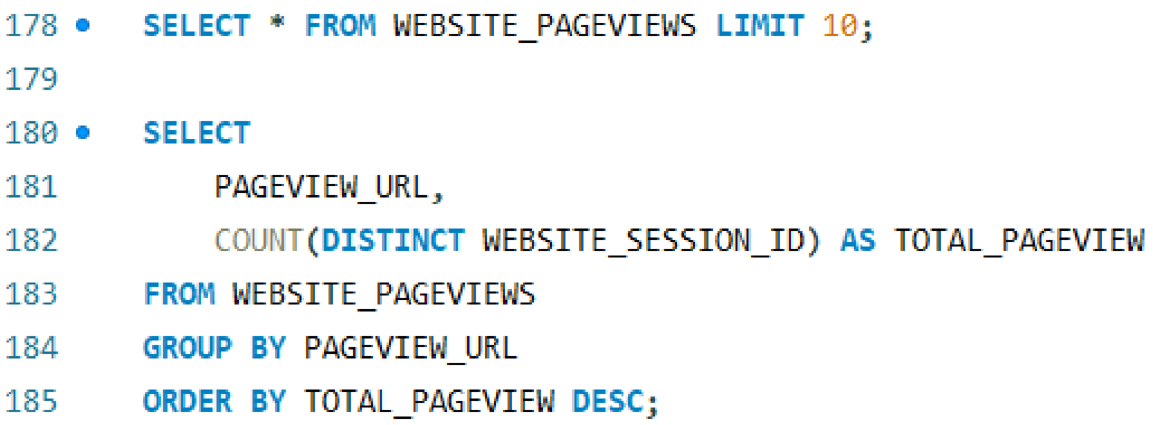


```
SELECT
    YEAR(website_sessions.created_at) AS Year,
    MONTH(website_sessions.created_at) AS Month,
    COUNT(DISTINCT CASE WHEN device_type = 'desktop' THEN website_sessions.website_session_id ELSE NULL END) AS Desktop_Sessions,
    COUNT(DISTINCT CASE WHEN device_type = 'desktop' THEN orders.order_id ELSE NULL END) AS Desktop_Orders,
    COUNT(DISTINCT CASE WHEN device_type = 'mobile' THEN website_sessions.website_session_id ELSE NULL END) AS Mobile_Sessions,
    COUNT(DISTINCT CASE WHEN device_type = 'mobile' THEN orders.order_id ELSE NULL END) AS Mobile_Orders
FROM website_sessions
    LEFT JOIN orders
        ON orders.website_session_id = website_sessions.website_session_id
WHERE
    website_sessions.created_at < '2012-11-30'
    AND website_sessions.utm_source = 'gsearch'
    AND website_sessions.utm_campaign = 'nonbrand'
GROUP BY 1,2;
```

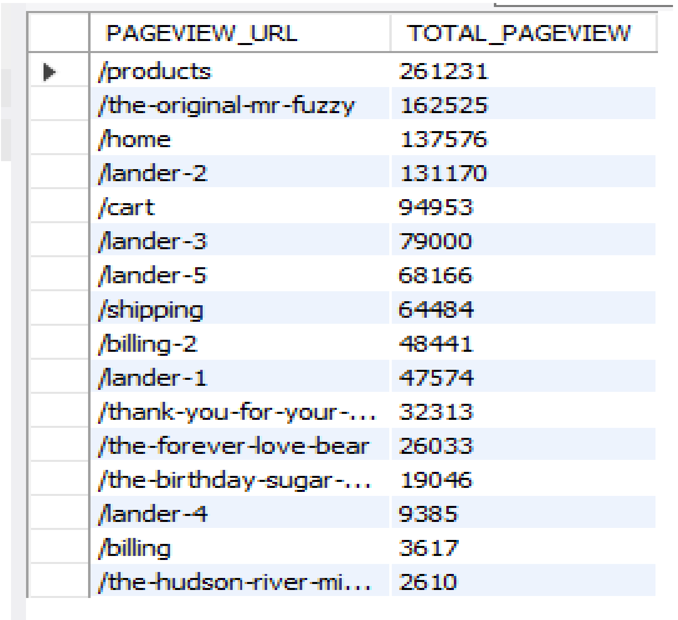


Year	Month	Desktop_Sessions	Desktop_Orders	Mobile_Sessions	Mobile_Orders
2012	3	1128	50	724	10
2012	4	2139	75	1370	11
2012	5	2276	83	1019	8
2012	6	2673	106	766	8
2012	7	2774	122	886	14
2012	8	3515	165	1158	9
2012	9	3171	155	1056	17
2012	10	3934	201	1263	18
2012	11	6870	343	2208	40

Problem 16: Could you get the most-viewed website pages, ranked by session volume?



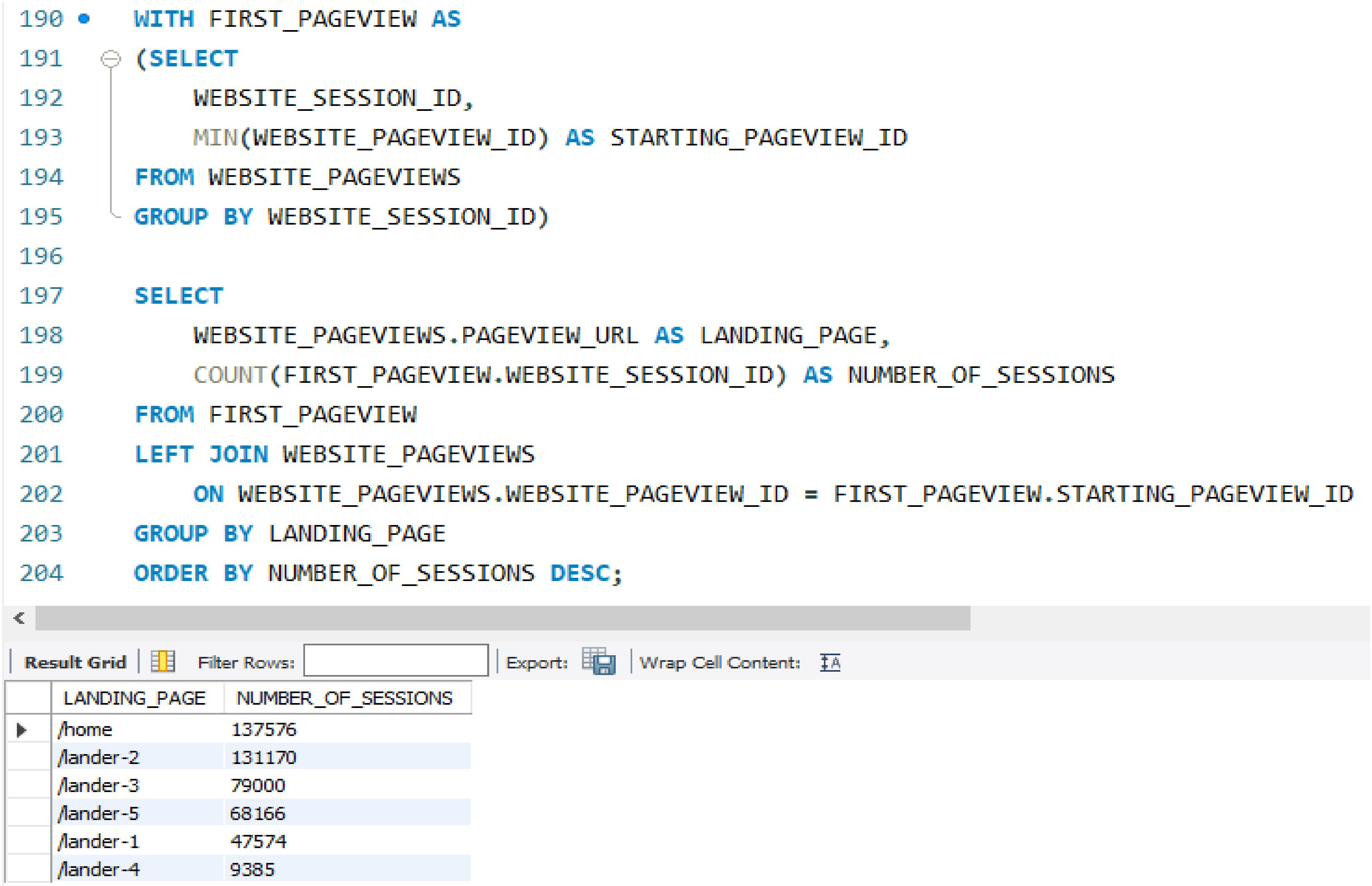
```
SELECT * FROM WEBSITE_PAGEVIEWS LIMIT 10;

SELECT
    PAGEVIEW_URL,
    COUNT(DISTINCT WEBSITE_SESSION_ID) AS TOTAL_PAGEVIEW
FROM WEBSITE_PAGEVIEWS
GROUP BY PAGEVIEW_URL
ORDER BY TOTAL_PAGEVIEW DESC;
```



PAGEVIEW_URL	TOTAL_PAGEVIEW
/products	261231
/the-original-mr-fuzzy	162525
/home	137576
/lander-2	131170
/cart	94953
/lander-3	79000
/lander-5	68166
/shipping	64484
/billing-2	48441
/lander-1	47574
/thank-you-for-your-...	32313
/the-forever-love-bear	26033
/the-birthday-sugar-...	19046
/lander-4	9385
/billing	3617
/the-hudson-river-mi...	2610

In that analysis, We easily see the Total Pageview of all types of Ecommerce website page

Problem 17: Identify the top entry pages and rank them on entry volume using COMMON TABLE EXPRESSION (CTE)



```
WITH FIRST_PAGEVIEW AS
(SELECT
    WEBSITE_SESSION_ID,
    MIN(WEBSITE_PAGEVIEW_ID) AS STARTING_PAGEVIEW_ID
FROM WEBSITE_PAGEVIEWS
GROUP BY WEBSITE_SESSION_ID)

SELECT
    WEBSITE_PAGEVIEWS.PAGEVIEW_URL AS LANDING_PAGE,
    COUNT(FIRST_PAGEVIEW.WEBSITE_SESSION_ID) AS NUMBER_OF_SESSIONS
FROM FIRST_PAGEVIEW
LEFT JOIN WEBSITE_PAGEVIEWS
    ON WEBSITE_PAGEVIEWS.WEBSITE_PAGEVIEW_ID = FIRST_PAGEVIEW.STARTING_PAGEVIEW_ID
GROUP BY LANDING_PAGE
ORDER BY NUMBER_OF_SESSIONS DESC;
```

LANDING_PAGE	NUMBER_OF_SESSIONS
/home	137576
/lander-2	131170
/lander-3	79000
/lander-5	68166
/lander-1	47574
/lander-4	9385

In that analysis, We easily see the Total Pageview of all types of Ecommerce website page