Finding the top traffic sources

```
SELECT
	utm_source,
	utm_campaign,
	http_referer,
	COUNT(website_session_id) AS Session
FROM website_sessions
WHERE created_at < '2012-04-12'
GROUP BY
	utm_source,
	utm_campaign,
	http_referer
ORDER BY (Session)DESC
```

Traffic Conversation Rates

```
SELECT
	COUNT(DISTINCT(ws.website_session_id)) AS Sessions,
	COUNT(DISTINCT(o.order_id)) AS Orders,
	COUNT(DISTINCT(o.order_id))/COUNT(DISTINCT(ws.website_session_id)) AS
	session_to_orders_conv
FROM website_sessions ws
	LEFT JOIN orders o
		ON ws.user_id = o.user_id
WHERE ws.created_at < '2012-04-12'
	AND utm_source = 'gsearch'
	AND utm_campaign = 'nonbrand'
```

Traffic source Trending

```
SELECT
	MIN(DATE(created_at)),
	COUNT(DISTINCT(website_session_id)) AS Sessions
FROM website_sessions
WHERE created_at < '2012-05-10'
	AND utm_source = 'gsearch'
	AND utm_campaign = 'nonbrand'
GROUP BY YEARWEEK(created_at)
```

Traffic Source Bid Optimization

```
SELECT
	ws.device_type,
	COUNT(DISTINCT(ws.website_session_id)) AS Sessions,
	COUNT(DISTINCT(o.order_id)) AS Orders,
	COUNT(DISTINCT(o.order_id))/COUNT(DISTINCT(ws.website_session_id)) AS
	session_to_orders_conv
FROM website_sessions ws
```

```
        LEFT JOIN orders o
                ON  o.website_session_id = ws.website_session_id
WHERE ws.created_at < '2012-05-11'
        AND utm_source = 'gsearch'
        AND utm_campaign = 'nonbrand'
GROUP BY device_type
```

Traffic Source Trending Segments

```
SELECT
        MIN(DATE(created_at)) AS week_start_date,
        SELECT(DISTINCT CASE WHEN device_type = 'Mobile' THEN ws.website_session_id ELSE NULL
        END) AS session_mobile,
        SELECT(DISTINCT CASE WHEN device_type = 'Desktop' THEN ws.website_session_id ELSE NULL
        END) AS session_desktop
FROM website_sessions
WHERE website_sessions.created_at <'2012-06-09'
        AND website_sessions.created_at > '2012-04-15'
        AND website_sessions.utm_source = 'gsearch'
        AND website_sessions.utm_campaign = 'nonbrand'
GROUP BY YEARWEEK(website_sessions.created_at)
```

Identifying Top Website Pages

```
SELECT
        pageview_url,
        COUNT(DISTINCT(website_session_id)) AS sessions
FROM website_pageviews
WHERE created_at < '2012-06-09'
GROUP BY pageview_url
ORDER BY sessions DESC
```

Identifying Top Entry pages

```
CREATE TEMPORARY TABLE first_pageviews
SELECT
        website_session_id,
        MIN(website_pageview_id) AS min_pageview_id
FROM
        website_pageviews
WHERE
        created_at < '2012-06-12'
GROUP BY
        website_session_id
```

```
SELECT
	wp.pageview_url AS landing_page,
	COUNT(fp.website_session_id) as min_pageviews
FROM first_pageviews fp
	LEFT JOIN website_pageviews wp
		ON  wp.website_pageview_id = fp.min_pageview_id
WHERE wp.created_at < '2012-06-09'
GROUP BY
  wp.pageview_url


**CALCULATING BOUNCE RATES**
#STEP 1: finding the first website_pageview_id for relevant sessions
#STEP 2: identifying landing page of each session
#STEP 3: counting pageviews for each session, to identify "bounces"
#STEP 4: summarizing by counting total sessions and bounced sessions


#STEP 1: finding the first website_pageview_id for relevant sessions
CREATE TEMPORARY TABLE first_pageviews
SELECT
	MIN(website_pageview_id) AS min_pageviews,
	website_session_id
FROM mavenfuzzyfactory.website_pageviews
GROUP BY website_session_id;


#STEP 2: identifying pageview URL of each session where landing page is home
CREATE TEMPORARY TABLE session_with_landing_page
SELECT
	first_pageviews.min_pageviews,
	first_pageviews.website_session_id,
	website_pageviews.pageview_url AS landing_page
FROM first_pageviews
	LEFT JOIN website_pageviews
		ON first_pageviews.min_pageviews = website_pageviews.website_pageview_id
WHERE pageview_url = '/home';

#STEP 3: Count the pageviews for each session, to identify "bounces" (where count of pages is one)
CREATE TEMPORARY TABLE bounced_sessions
SELECT
	session_with_landing_page.landing_page,
  session_with_landing_page.website_session_id,
  COUNT(website_pageviews.website_session_id) AS count_of_pages_viewed
FROM session_with_landing_page
	JOIN website_pageviews
		ON session_with_landing_page.website_session_id =
website_pageviews.website_session_id
GROUP BY
```

```
        session_with_landing_page.landing_page,
    session_with_landing_page.website_session_id
HAVING COUNT(website_pageviews.website_session_id) = '1';

#STEP 4: summarizing by counting total sessions and bounced sessions
SELECT
    COUNT(DISTINCT sessions_w_landing_page.website_session_id) AS sessions,
    COUNT(DISTINCT bounced_sessions.website_session_id) AS bounced_sessions,
    COUNT(DISTINCT bounced_sessions.website_session_id) / COUNT(DISTINCT
sessions_w_landing_page.website_session_id) AS bounce_rate
FROM sessions_w_landing_page
        LEFT JOIN bounced_sessions
                ON sessions_w_landing_page.website_session_id =
bounced_sessions.website_session_id;



**ANALYZING LANDING PAGE TEST**
#STEP 0: Find out when the new page /lander launched ("/lander-1")
#STEP 1: Finding the first website_pageview_id for relevant sessions from step 0 and instructions
#STEP 2: Identifying landing page of each session
#STEP 3: Counting pageviews for each session, to identify "bounces"
#STEP 4: Summarizing by counting total sessions and bounced sessions, by landing page

#STEP 0: find out when the new page /lander launched ("/lander-1")
SELECT
        MIN(created_at) AS first_created_at,
        MIN(website_pageview_id) AS first_pageview_id # Distinct PageviewID
FROM website_pageviews
WHERE pageview_url = '/lander-1'; #First time lander one was displayed on the website

#STEP 1: finding the first website_pageview_id for relevant sessions
CREATE TEMPORARY TABLE first_pageview_lander1
SELECT
        website_pageviews.website_session_id,
        MIN(website_pageviews.website_pageview_id) AS min_pageview_id
FROM website_pageviews
        INNER JOIN website_sessions
                ON website_pageviews.website_session_id = website_sessions.website_session_id
    AND website_pageviews.created_at < '2012-07-18' #as per assignment
    AND website_pageviews.website_pageview_id > 23504 #as per STEP 0
    AND website_sessions.utm_source = 'gsearch'
    AND website_sessions.utm_campaign = 'nonbrand'
GROUP BY
        website_pageviews.website_session_id;
```

```
#STEP 2: identifying landing page of each session
CREATE TEMPORARY TABLE sessions_w_landing_page_lander1
SELECT
        first_pageview_lander1.website_session_id,
        website_pageviews.pageview_url AS landing_page
FROM first_pageview_lander1
        LEFT JOIN website_pageviews
                ON first_pageview_lander1.min_pageview_id =
                website_pageviews.website_pageview_id
WHERE website_pageviews.pageview_url IN ('/home', '/lander-1');

#STEP 3: counting pageviews for each session, to identify "bounces"
CREATE TEMPORARY TABLE bounced_sessions_lander1
SELECT
        sessions_w_landing_page_lander1.website_session_id,
        sessions_w_landing_page_lander1.landing_page,
        COUNT(website_pageviews.website_pageview_id) AS count_of_pages_viewed
FROM sessions_w_landing_page_lander1
        LEFT JOIN website_pageviews
                ON website_pageviews.website_session_id =
        sessions_w_landing_page_lander1.website_session_id
GROUP BY
        sessions_w_landing_page_lander1.website_session_id,
   sessions_w_landing_page_lander1.landing_page
HAVING
        COUNT(website_pageviews.website_pageview_id) = 1;

#STEP 4: summarizing by counting total sessions and bounced sessions, by landing page
SELECT
        sessions_w_landing_page_lander1.landing_page,
        COUNT(DISTINCT sessions_w_landing_page_lander1.website_session_id) AS sessions,
        COUNT(DISTINCT bounced_sessions_lander1.website_session_id) AS bounced_sessions,
        COUNT(DISTINCT bounced_sessions_lander1.website_session_id) / COUNT(DISTINCT
        sessions_w_landing_page_lander1.website_session_id) AS bounce_rate
FROM sessions_w_landing_page_lander1
        LEFT JOIN bounced_sessions_lander1
                ON sessions_w_landing_page_lander1.website_session_id =
bounced_sessions_lander1.website_session_id
GROUP BY
        sessions_w_landing_page_lander1.landing_page;
```