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|  |
|  | SELECT |
|  | pageview\_url, |
|  | COUNT(DISTINCT website\_pageview\_id) AS pvs |
|  | FROM website\_pageviews |
|  | WHERE created\_at < '2012-06-09' |
|  | GROUP BY |
|  | pageview\_url |
|  | ORDER BY |
|  | pvs DESC; |
|  |  |
|  | ################################################################################################################### |
|  |  |
|  | #2. IDENTIFYING TOP ENTRY PAGES |
|  | CREATE TEMPORARY TABLE first\_pageview\_per\_session |
|  | SELECT |
|  | website\_session\_id, |
|  | MIN(website\_pageview\_id) AS first\_pageview |
|  | FROM website\_pageviews |
|  | WHERE created\_at < '2012-06-12' |
|  | GROUP BY website\_session\_id; |
|  |  |
|  | SELECT |
|  | website\_pageviews.pageview\_url AS landing\_page\_url, |
|  | COUNT(DISTINCT first\_pageview\_per\_session.website\_session\_id) AS sessions\_hitting\_this\_landing\_page |
|  | FROM first\_pageview\_per\_session |
|  | LEFT JOIN website\_pageviews |
|  | ON website\_pageviews.website\_pageview\_id = first\_pageview\_per\_session.first\_pageview |
|  | GROUP BY |
|  | website\_pageviews.pageview\_url; |
|  |  |
|  | ################################################################################################################### |
|  |  |
|  | #3. CALCULATING BOUNCE RATES |
|  | #STEP 1: finding the first website\_pageview\_id for relevant sessions |
|  | CREATE TEMPORARY TABLE first\_pageview |
|  | SELECT |
|  | website\_session\_id, |
|  | MIN(website\_pageview\_id) AS min\_pageview\_id |
|  | FROM website\_pageviews |
|  | WHERE created\_at < '2012-06-14' |
|  | GROUP BY |
|  | website\_session\_id; |
|  |  |
|  | #STEP 2: identifying landing page of each session |
|  | CREATE TEMPORARY TABLE sessions\_w\_landing\_page |
|  | SELECT |
|  | first\_pageview.website\_session\_id, |
|  | website\_pageviews.pageview\_url AS landing\_page |
|  | FROM first\_pageview |
|  | LEFT JOIN website\_pageviews |
|  | ON first\_pageview.min\_pageview\_id = website\_pageviews.website\_pageview\_id |
|  | WHERE website\_pageviews.pageview\_url = '/home'; |
|  |  |
|  | #STEP 3: counting pageviews for each session, to identify "bounces" |
|  | CREATE TEMPORARY TABLE bounced\_sessions |
|  | SELECT |
|  | sessions\_w\_landing\_page.website\_session\_id, |
|  | sessions\_w\_landing\_page.landing\_page, |
|  | COUNT(website\_pageviews.website\_pageview\_id) AS count\_of\_pages\_viewed |
|  | FROM sessions\_w\_landing\_page |
|  | LEFT JOIN website\_pageviews |
|  | ON website\_pageviews.website\_session\_id = sessions\_w\_landing\_page.website\_session\_id |
|  | GROUP BY |
|  | sessions\_w\_landing\_page.website\_session\_id, |
|  | sessions\_w\_landing\_page.landing\_page |
|  | HAVING |
|  | COUNT(website\_pageviews.website\_pageview\_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; |
|  |  |
|  | ################################################################################################################### |
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|  | #4. ANALYZING LANDING PAGE TESTS |
|  | #STEP 0: find out when the new page /lander launched |
|  | SELECT |
|  | created\_at AS first\_created\_at, |
|  | website\_pageview\_id AS first\_pageview\_id |
|  | FROM website\_pageviews |
|  | WHERE pageview\_url = '/lander-1'; |
|  |  |
|  | #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 < '2012-07-28' #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; |
|  |  |
|  | ################################################################################################################### |
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|  | #5. LANDING PAGE TREND ANALYSIS |
|  | #STEP 1: finding the first website\_pageview\_id for relevant sessions and website\_pageview\_id count |
|  | CREATE TEMPORARY TABLE sessions\_w\_min\_pv\_and\_view\_count |
|  | SELECT |
|  | website\_pageviews.website\_session\_id, |
|  | MIN(website\_pageviews.website\_pageview\_id) AS first\_pageview\_id, |
|  | COUNT(website\_pageviews.website\_pageview\_id) AS count\_pageviews |
|  | FROM website\_sessions |
|  | LEFT JOIN website\_pageviews |
|  | ON website\_pageviews.website\_session\_id = website\_sessions.website\_session\_id |
|  | WHERE |
|  | website\_pageviews.created\_at > '2012-06-01' #asked by requestor |
|  | AND website\_pageviews.created\_at < '2012-08-31' #prescribed by assignment date |
|  | 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 ad session\_created\_at |
|  | CREATE TEMPORARY TABLE sessions\_w\_counts\_lander\_and\_created\_at |
|  | SELECT |
|  | sessions\_w\_min\_pv\_and\_view\_count.website\_session\_id, |
|  | sessions\_w\_min\_pv\_and\_view\_count.first\_pageview\_id, |
|  | sessions\_w\_min\_pv\_and\_view\_count.count\_pageviews, |
|  | website\_pageviews.pageview\_url AS landing\_page, |
|  | website\_pageviews.created\_at AS session\_created\_at |
|  | FROM sessions\_w\_min\_pv\_and\_view\_count |
|  | LEFT JOIN website\_pageviews |
|  | ON sessions\_w\_min\_pv\_and\_view\_count.first\_pageview\_id = website\_pageviews.website\_pageview\_id |
|  | WHERE website\_pageviews.pageview\_url IN ('/home', '/lander-1'); |
|  |  |
|  | #STEP 3: summarizing by week (bounce rate, sessions to each lander) |
|  | SELECT |
|  | #YEARWEEK(session\_created\_at) AS year\_week, |
|  | MIN(DATE(session\_created\_at)) AS week\_start\_date, |
|  | #COUNT(DISTINCT website\_session\_id) AS total\_sessions, |
|  | #COUNT(DISTINCT CASE WHEN count\_pageviews = 1 THEN website\_session\_id ELSE NULL END) AS bounced\_sessions, |
|  | COUNT(DISTINCT CASE WHEN count\_pageviews = 1 THEN website\_session\_id ELSE NULL END) / COUNT(DISTINCT website\_session\_id) AS bounce\_rate, |
|  | COUNT(DISTINCT CASE WHEN landing\_page = '/home' THEN website\_session\_id ELSE NULL END) AS home\_sessions, |
|  | COUNT(DISTINCT CASE WHEN landing\_page = '/lander-1' THEN website\_session\_id ELSE NULL END) AS lander\_sessions |
|  | FROM sessions\_w\_counts\_lander\_and\_created\_at |
|  | GROUP BY |
|  | YEARWEEK(session\_created\_at); |
|  |  |
|  | ################################################################################################################### |
|  |  |
|  | #6. BUILDING CONVERSION FUNNELS |
|  | #STEP 1: select all pageviews for relevant sessions and identify each pageview as specific funnel step |
|  | CREATE TEMPORARY TABLE session\_level\_made\_it\_flags |
|  | SELECT |
|  | website\_session\_id, |
|  | MAX(products\_page) AS products\_made\_it, |
|  | MAX(mrfuzzy\_page) AS mrfuzzy\_made\_it, |
|  | MAX(cart\_page) AS cart\_made\_it, |
|  | MAX(shipping\_page) AS shipping\_made\_it, |
|  | MAX(billing\_page) AS billing\_made\_it, |
|  | MAX(thankyou\_page) AS thankyou\_made\_it |
|  | FROM ( |
|  | SELECT |
|  | website\_sessions.website\_session\_id, |
|  | website\_pageviews.pageview\_url, |
|  | #website\_pageviews.created\_at AS pageview\_created\_at, |
|  | CASE WHEN pageview\_url = '/products' THEN 1 ELSE 0 END AS products\_page, |
|  | CASE WHEN pageview\_url = '/the-original-mr-fuzzy' THEN 1 ELSE 0 END AS mrfuzzy\_page, |
|  | CASE WHEN pageview\_url = '/cart' THEN 1 ELSE 0 END AS cart\_page, |
|  | CASE WHEN pageview\_url = '/shipping' THEN 1 ELSE 0 END AS shipping\_page, |
|  | CASE WHEN pageview\_url = '/billing' THEN 1 ELSE 0 END AS billing\_page, |
|  | CASE WHEN pageview\_url = '/thank-you-for-your-order' THEN 1 ELSE 0 END AS thankyou\_page |
|  | FROM website\_sessions |
|  | LEFT JOIN website\_pageviews |
|  | ON website\_sessions.website\_session\_id = website\_pageviews.website\_session\_id |
|  | WHERE website\_sessions.created\_at BETWEEN '2012-08-05' AND '2012-09-05' |
|  | AND website\_sessions.utm\_campaign = 'nonbrand' |
|  | AND website\_sessions.utm\_source = 'gsearch' |
|  | ORDER BY |
|  | website\_pageviews.website\_session\_id, |
|  | website\_pageviews.created\_at |
|  | ) AS pageview\_level |
|  | GROUP BY |
|  | website\_session\_id; |
|  |  |
|  | #STEP 2: create session-level conversion funnel view |
|  | SELECT |
|  | COUNT(DISTINCT website\_session\_id) AS sessions, |
|  | COUNT(DISTINCT CASE WHEN products\_made\_it = 1 THEN website\_session\_id ELSE NULL END) AS to\_products, |
|  | COUNT(DISTINCT CASE WHEN mrfuzzy\_made\_it = 1 THEN website\_session\_id ELSE NULL END) AS to\_mrfuzzy, |
|  | COUNT(DISTINCT CASE WHEN cart\_made\_it = 1 THEN website\_session\_id ELSE NULL END) AS to\_cart, |
|  | COUNT(DISTINCT CASE WHEN shipping\_made\_it = 1 THEN website\_session\_id ELSE NULL END) AS to\_shipping, |
|  | COUNT(DISTINCT CASE WHEN billing\_made\_it = 1 THEN website\_session\_id ELSE NULL END) AS to\_billing, |
|  | COUNT(DISTINCT CASE WHEN thankyou\_made\_it = 1 THEN website\_session\_id ELSE NULL END) AS to\_thankyou |
|  | FROM session\_level\_made\_it\_flags; |
|  |  |
|  | #STEP 3: aggregate data to assess funnel performance |
|  | SELECT |
|  | COUNT(DISTINCT CASE WHEN products\_made\_it = 1 THEN website\_session\_id ELSE NULL END) / |
|  | COUNT(DISTINCT website\_session\_id) AS lander\_click\_rt, |
|  | COUNT(DISTINCT CASE WHEN mrfuzzy\_made\_it = 1 THEN website\_session\_id ELSE NULL END) / |
|  | COUNT(DISTINCT CASE WHEN products\_made\_it = 1 THEN website\_session\_id ELSE NULL END) AS products\_click\_rt, |
|  | COUNT(DISTINCT CASE WHEN cart\_made\_it = 1 THEN website\_session\_id ELSE NULL END) / |
|  | COUNT(DISTINCT CASE WHEN mrfuzzy\_made\_it = 1 THEN website\_session\_id ELSE NULL END) AS mrfuzzy\_click\_rt, |
|  | COUNT(DISTINCT CASE WHEN shipping\_made\_it = 1 THEN website\_session\_id ELSE NULL END) / |
|  | COUNT(DISTINCT CASE WHEN cart\_made\_it = 1 THEN website\_session\_id ELSE NULL END) AS cart\_click\_rt, |
|  | COUNT(DISTINCT CASE WHEN billing\_made\_it = 1 THEN website\_session\_id ELSE NULL END) / |
|  | COUNT(DISTINCT CASE WHEN shipping\_made\_it = 1 THEN website\_session\_id ELSE NULL END) AS shipping\_click\_rt, |
|  | COUNT(DISTINCT CASE WHEN thankyou\_made\_it = 1 THEN website\_session\_id ELSE NULL END) / |
|  | COUNT(DISTINCT CASE WHEN billing\_made\_it = 1 THEN website\_session\_id ELSE NULL END) AS billing\_click\_rt |
|  | FROM session\_level\_made\_it\_flags; |
|  |  |
|  | #7. ANALYZING CONVERSION FUNNEL TESTS |
|  | #STEP 1: finding the first time /billing-2 was seen |
|  | SELECT |
|  | MIN(created\_at) AS first\_created\_at, |
|  | website\_pageview\_id AS first\_pv\_id |
|  | FROM website\_pageviews |
|  | WHERE pageview\_url = '/billing-2'; |
|  |  |
|  | #STEP 2: final test analysis output |
|  | SELECT |
|  | website\_pageviews.pageview\_url AS billing\_version\_seen, |
|  | COUNT(DISTINCT website\_pageviews.website\_session\_id) AS sessions, |
|  | COUNT(DISTINCT orders.order\_id) AS orders, |
|  | COUNT(DISTINCT orders.order\_id) / COUNT(DISTINCT website\_pageviews.website\_session\_id) AS billing\_to\_order\_rt |
|  | FROM website\_pageviews |
|  | LEFT JOIN orders |
|  | ON website\_pageviews.website\_session\_id = orders.website\_session\_id |
|  | WHERE website\_pageviews.created\_at BETWEEN '2012-09-10 00:13:05' AND '2012-11-10' |
|  | AND website\_pageviews.pageview\_url IN ('/billing', '/billing-2') |
|  | GROUP BY website\_pageviews.pageview\_url; |