

Database Dictionary

website_sessions

Column Name	Table	Sample Data	Analytics Purpose & Relationship	Quality Check
website_session_id	website_sessions	1, 2, 3	Primary key; relates to website_pageviews and orders	Should be unique, non-null
created_at	website_sessions	'2012-03-19 08:04:16', '2012-03-19 08:16:49', '2012-03-19 08:26:55'	Used for time-based session analysis	Should be valid timestamps
user_id	website_sessions	1, 2, 3	Foreign key for user; links to orders	Should be integer, non-null
is_repeat_session	website_sessions	0, 1	Identifies repeat visitors; user engagement metric	Should be boolean (0/1)
utm_source	website_sessions	'gsearch', 'bsearch',	Tracks marketing channel; relates to campaign performance	short strings
utm_campaign	website_sessions	'nonbrand'	Tracks specific campaigns	short strings
utm_content	website_sessions	'g_ad_1',	Differentiates ad content	short strings
device_type	website_sessions	'mobile', 'desktop',	Device segmentation for analysis	Should be non-null, limited values
http_referer	website_sessions	' https://www.gsearch.com ', ...	Tracks session sources	Should be valid URLs

website_pageviews

Column Name	Table	Sample Data	Analytics Purpose & Relationship	Quality Check
website_pageview_id	website_pageviews	1, 2, 3	Primary key; identifies each pageview	Unique, non-null
created_at	website_pageviews	'2012-03-19 08:04:16', ...	Time series pageview analysis	Valid timestamp

website_session_id	website_pageviews	1, 2, 3	Foreign key from sessions; relates views to sessions	Should exist in website_sessions
pageview_url	website_pageviews	'/home', '/products', '/cart'	Tracks customer navigation; relates to product/checkout flow	Should be non-null URL paths

products

Column Name	Table	Sample Data	Analytics Purpose & Relationship	Quality Check
product_id	products	1, 2, 3	Primary key; referenced by orders and order_items	Unique, non-null
created_at	products	'2012-03-19 08:00:00', ...	Product lifecycle analysis	Valid timestamp
product_name	products	'Product A', 'Product B', 'Product C'	Used for product-level analysis, reporting	Should be descriptive, non-null

orders

Column Name	Table	Sample Data	Analytics Purpose & Relationship	Quality Check
order_id	orders	1, 2, 3	Primary key; links to order_items, order_item_refunds	Unique, non-null
created_at	orders	'2012-03-19 10:42:46', ...	Time series/rfm analysis	Valid timestamp
website_session_id	orders	20, 104, 147	Foreign key from sessions; links order to session	Should exist in website_sessions
user_id	orders	20, 104, 147	Foreign key; useful for customer analysis	Should exist in user dimension
primary_product_id	orders	1, 2, 3, 4	Foreign key, Main product sold in order, relates to products	Should exist in products
items_purchased	orders	1, 2	Number of items in order	Should be integer
price_usd	orders	49.99,...	Revenue analysis	Non-negative, valid numeric value
cogs_usd	orders	19.49, 19.49, 19.49	Profit margin analysis	Non-negative, valid numeric value

order_items

Column Name	Table	Sample Data	Analytics Purpose & Relationship	Quality Check
order_item_id	order_items	1, 2, 3	Primary key; identifies items per order	Unique, non-null
created_at	order_items	'2012-03-19 10:42:46', ...	Order item lifecycle analysis	Valid timestamp
order_id	order_items	1, ...	Foreign key; links item to order	Should exist in orders
product_id	order_items	1, 2, 3, ...	Foreign key; product in item	Should exist in products
is_primary_item	order_items	1, 0	Flags if item is main product	Should be boolean (0/1)
price_usd	order_items	49.99, 49.99	Item-level revenue	Valid positive number
cogs_usd	order_items	19.49, 19.49	Item-level cost	Valid positive number

order_item_refunds

Column Name	Table	Sample Data	Analytics Purpose & Relationship	Quality Check
order_item_refund_id	order_item_refunds	1, 2, 3	Primary key; tracks refunds of order items	Unique, non-null
created_at	order_item_refunds	'2012-04-06 11:32:43', ...	Refund analysis, time series	Valid timestamp
order_item_id	order_item_refunds	57, 74, 71	FK; relates refund to item	Should exist in order_items
order_id	order_item_refunds	57, 74, 71	FK; can cross-check with order	Should exist in orders
refund_amount_usd	order_item_refunds	49.99, 49.99	Financial loss tracking	Valid positive number