TECHSTACK

Task 1: Exploratory Data Analysis (EDA) for Dataset: 'Site Data'

The 'Site Data' table describes the activities between Feb and July broken down by country/source/campaign. The main funnel the user goes through before purchasing a new plan is as follows:

Funnel Events:

1. **homepage** - User visits the homepage (opens the site and starts a new session)
2. **registration** - User completes the registration process
3. **consultation** - User completes the consultation process
4. **product** - User chooses a product
5. **Is_sub** - User selects between a One-Time Order or Subscription
6. **delivery** - User enters delivery information
7. **payment** - User enters payment details
8. **thank_you** - Payment is confirmed

Table Columns:

- **country**: The country from where the traffic originated
- **source**: The source of the traffic (e.g., direct, referral, social media)
- **campaign**: The marketing campaign that drove the traffic

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Objective:

The Product and Marketing teams have asked for a detailed analysis of the user funnel to help improve conversion rates. Using the given data, come up with **3-4 meaningful insights** that could help improve the funnel's performance.

Instructions:

- Provide insights with clear assumptions and explain your decisions.
- There are no "right answers," so use this exercise to showcase your analytical skills.
- Be as clear as possible in your assumptions and reasoning behind the analysis.

Task 2. SQL Test Task: Sakila Database

The following SQL tasks are based on the **Sakila Database** (publicly available). Write a SQL query for each task, and submit both the query and its output in CSV format.

Sakila Database: Relevant Tables Overview

- **actor**: Contains information about actors
- **film**: Contains information about films
- **category**: Contains information about film categories
- **film_category**: Relationship between films and categories
- **rental**: Contains rental information
- **customer**: Contains information about customers
- **inventory**: Contains information about film inventory
- **payment**: Contains payment information

Objective: Write SQL Queries

Query 1: Retrieve Actor Information

Write a query to display the following information for all actors:

- **Columns**: first_name, last_name, last_update
- **Expected output**: All rows from the actor table

Query 2: Find Movies Released in 2006

Write a query to find all films released in 2006. Display the following information:

- **Columns**: `title`, `release_year`, `length`
- **Expected output:** Only films where the release year is 2006.

Query 3: Count the Number of Films in Each Category

Write a query to display the number of films in each category.

Hint: You will need to perform a **JOIN** between the `film`, `category`, and `film_category` tables. The query should display the following:

- **Columns**: `category_name`, `film_count`
- **Expected output**: A list of categories with the total number of films in each.