

Data Structure

Table - categories

Attributes -

Attribute	Type
id	bigint
name	string

Table - products

Attributes -

Attribute	Type
id	bigint
name	string
description	text
category_id	bigint
mrp	decimal
selling_price	decimal

Table - users

Attributes -

Attribute	Type
id	bigint
mobile_number	string

Table - addresses

Attributes -

Attribute	Type
id	bigint
user_id	bigint
name	string
address_line_1	text
pincode	string
state	string
city	string
country	string
status	integer

Table - coupons

Attributes -

Attribute	Type
id	bigint
name	string
type	integer
discount	decimal
upper_limit	decimal

Note -

- *upper_limit is the maximum discount possible by this coupon code*
- *type - can be 0 or 1, where 0 means flat coupon, and 1 means percentage coupon*

Table - orders

Attributes -

Attribute	Type
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id	bigint
user_id	bigint
address_id	bigint
product_id	bigint
quantity	integer
coupon_id	bigint
payment_mode	integer

Note -

- *payment_mode can be 0 or 1, where 0 means cash on delivery, and 1 means prepaid*

Questions

With the above tables in mind, please write SQL to create following analysis:

- Which 5 cities placed most orders (ranked highest to lowest)
- Which 5 states placed most orders (ranked highest to lowest)
- What is the split between cash on delivery and prepaid
- Which 10 products were most purchased (ranked highest to lowest)
- How much discount have we given in last N number of days
- What is the revenue in last N number of days (revenue will be on the basis of selling price)
- If spend on marketing is assumed to be X rupees, how much profit / loss have we made in last N days
- What is our repeat rate in last N days