

G-Mart

Online Sales

Data Analysis

SQL

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Introduction & Data familiarisation

G-Mart is trying to analyse their online sales in the year 2018. They provided 2 data sets. 'orders' dataset and 'details' dataset. Analyse the data and find insights

orders

Field name	Description
Order ID	ID for each order
Order date	Order placed date
CustomerName	Name of customer
State	State of the customer
City	City of the customer

details

Field name	Description
Order ID	ID for each order
Amount	Amount paid for each order
Profit	Profit from each order
Quantity	Quantity purchased
Category	Category of product purchased
Sub-category	Sub-Category of product purchased
PaymentMode	Method of payment Eg: COD,EMI,UPI

First we cleaned the data and added a new field in orders table named 'order_month' which retrieved from Order date field and field with name 'revenue' in details table which is amount*quantity.

Also we changed the names of some fields like 'Order date' to 'order_date', 'Order ID' to 'order_id' and 'CustomerName' to 'cust_name' .

Data analysis

Q1: What is the total revenue in 2018?

```
select sum(amount) as total_revenue  
from details;
```

total_revenue
437771

Q1: What is the total profit in 2018?

```
select sum(profit) as total_profit  
from details;
```

total_profit
36963

Data analysis

Q3: what is the revenue of the company in each month?

```
select orders.order_month, sum(details.revenue) as monthly_revenue
from orders
join details
on orders.order_id=details.order_id
group by orders.order_month
order by field(order_month, 'January', 'February', 'March', 'April', 'May', 'June', 'July', 'August',
'September', 'October', 'November', 'December') asc;
```

order_month	monthly_revenue
January	337422
February	178336
March	324864
April	169908
May	139594
June	110015
July	53144
August	152610
September	134269
October	176653
November	230348
December	164839

Q4: Arrange profit in each month in descending order

```
select orders.order_month, sum(details.profit) as monthly_profit
from orders
join details
on orders.order_id=details.order_id
group by orders.order_month
order by monthly_profit desc;
```

order_month	monthly_profit
November	10253
January	9684
February	8465
March	7793
April	4192
October	2959
August	2068
June	420
September	-1399
December	-1604
July	-2138
May	-3730

Data analysis

Q5: Select top 10 highest revenue generating state

```
select orders.state, sum(details.revenue) as state_revenue
from orders
join details
on orders.order_id=details.order_id
group by orders.state
order by state_revenue desc
limit 10;
```

state	state_revenue
Maharashtra	508345
Madhya Pradesh	411577
Uttar Pradesh	283040
Rajasthan	109455
Gujarat	100785
Delhi	98875
Andhra Pradesh	82897
Punjab	77591
West Bengal	58761
Nagaland	58075

Q6: Select bottom 5 state with lowest profit generating

```
select orders.state, sum(details.profit) as state_profit
from orders
join details
on orders.order_id=details.order_id
group by orders.state
order by state_profit asc
limit 5;
```

state	state_profit
Rajasthan	-323
Andhra Pradesh	-280
Nagaland	40
Jammu and Kashmir	208
Goa	350

Data analysis

Q7: Which top 3 date has the highest number of orders?

```
select orders.order_date, count(details.order_id) as counts
from orders
join details
on orders.order_id=details.order_id
group by orders.order_date
order by counts desc
limit 3;
```

order_date	counts
2018-03-10	33
2018-01-13	32
2018-11-08	26

Q8: Month wise orders in 2018

```
select orders.order_month, count(details.order_id) as counts
from orders
join details
on orders.order_id=details.order_id
group by orders.order_month
order by counts desc;
```

order_month	counts
March	205
January	192
November	159
February	140
August	120
May	118
December	111
October	106
June	101
April	101
September	83
July	64

Data analysis

Q9: Which sub category of products has highest sold units.
Retrieve the top 10?

```
select sub_category, sum(quantity) as total_units
from details
group by sub_category
order by total_units desc
limit 10 ;
```

sub_category	total_units
Saree	795
Hankerchief	741
Stole	671
Furnishings	310
T-shirt	305
Phones	304
Electronic Games	297
Bookcases	297
Printers	291
Chairs	277

Q10: Which category of products has highest revenue?

```
select category, sum(revenue) as category_revenue
from details
group by category
order by category_revenue desc;
```

category	category_revenue
Electronics	818583
Clothing	687654
Furniture	665765

Data analysis

Q11: Which is the highest used payment method?

```
select paymentmode, count(paymentmode) as counts
from details
group by paymentmode
order by counts desc;
```

paymentmode	counts
COD	684
UPI	331
Debit Card	202
Credit Card	163
EMI	120

Q12: Through which payment method, highest revenue achieves?

```
select paymentmode, sum(revenue) as revenue
from details
group by paymentmode
order by revenue desc;
```

paymentmode	revenue
COD	724058
EMI	518704
Credit Card	430481
UPI	299933
Debit Card	198826

Thank
You

Biji T J
ELEVATE LABS