TASK-02

PAYTM MALL EPURCHASE DATA ANALYSIS

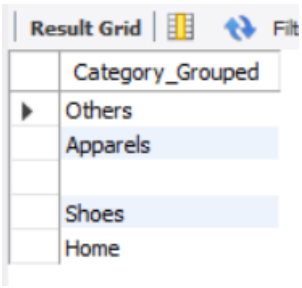
NAME: Lingamaneni Devansh

E-MAIL: devansh.lingamaneni@gmail.com

Linked-in: linkedin.com/in/devansh-lingamaneni-26272324a/

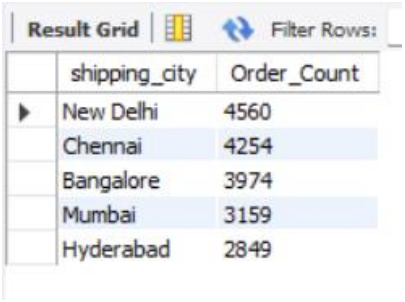
- What does the "Category_Grouped" column represent, and how many unique categories are there?

```
SELECT DISTINCT(Category_Grouped) FROM paytm_data.paytm;
```



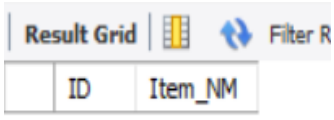
- Can you list the top 5 shipping cities in terms of the number of orders?

```
SELECT  DISTINCT(shipping_city),COUNT(*) AS Order_Count
FROM paytm_data.paytm
GROUP BY Shipping_city
ORDER BY Order_Count DESC LIMIT 5;
```



- Show me a table with all the data for products that belong to the "Electronics" category.

```
SELECT 'S.no' as ID,Item_NM FROM paytm_data.paytm WHERE
Category = 'Electronics';
```



- Filter the data to show only rows with a "Sale_Flag" of 'Yes'.

```
SELECT * FROM paytm_data.paytm WHERE Sale_Flag='On Sale';
```

S.no	Name	Shipping_city	Category_Grouped	Category	Sub_category	Product_Gender	Segment	Class	Family	Brand
2	AMIT GALPHADE	Ahmedabad	Apparels	Sports Equipment	Sports Apparel	MEN	MENS WEAR	TOPS	SPORT & ADVENTURE	SKINS
4	MALLIKARJUNA H	Bangalore	Apparels	Sports Equipment	Sports Apparel	MEN	MENS WEAR	TOPS	SPORT & ADVENTURE	SKINS
10	ASHWIN GIDWANI	Pune	Apparels	Sports Equipment	Sports Apparel	MEN	MENS WEAR	TOPS	SPORT & ADVENTURE	SKINS
16	Rompelli GopalK	Salem	Shoes	Men Footwear	Mens Footwear	MEN	MENS FOOTWEAR	NULL	SPORTS	ADIDAS
20	prabhakar reddy	Jhansi		WATCHES	WATCHES	MEN	WOMENS ACCESSORIES	WATCHES	NULL	PLAYBOY
22	RAHUL SINGH PAT	Jabalpur	Others	Bags	Bags	WOMEN	WOMEN	NULL	NULL	HIDESIGN

```
14  16:54:14  SELECT * FROM paytm_data.paytm WHERE Sale_Flag='On Sale' LIMIT 0, 1000    1000 row(s) returned
```

- Sort the data by "Item_Price" in descending order. What is the most expensive item?

```
SELECT * FROM paytm_data.paytm
WHERE Item_Price = (SELECT MAX(Item_Price) FROM
paytm_data.paytm);
```

- Apply conditional formatting to highlight all products with a "Special_Price_effective" value below $50 in red.

  Steps:

  1) Select Entire "Special_Price_effective" column.
  2) In Search Dialog box,Enter Conditional Formatting -> Select Hightlight Cells Rules -> Less than -> Write 4152 (83.04 x $50)

Special_Price
4999.00
4999.00
4095.00
4999.00
7495.00
6495.00
4560.00
5995.00
5690.00
4020.00
4999.00
4636.00
5621.00
4636.00
5090.00
5499.00
5670.00
4295.00
4020.00
4799.00
4999.00
5499.00
4186.00
4990.00
5499.00
5299.00
5499.00
4195.00
4095.00

Result Grid

	COUNT(*)
▶	3785

- Create a pivot table to find the total sales value for each category.

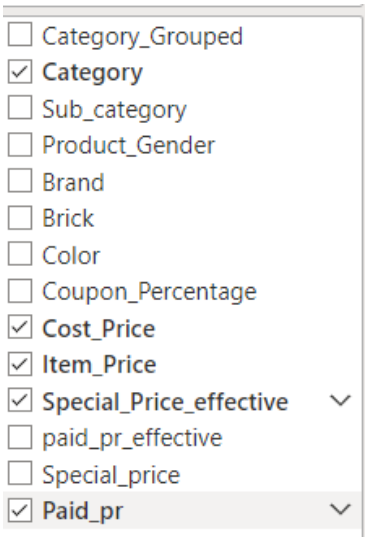
  Steps:

  1) Go to Insert Table -> Click On Pivot Table->Click OK

  2) A pivot table created , select desired fields like

     (category,sum_of_price etc....)

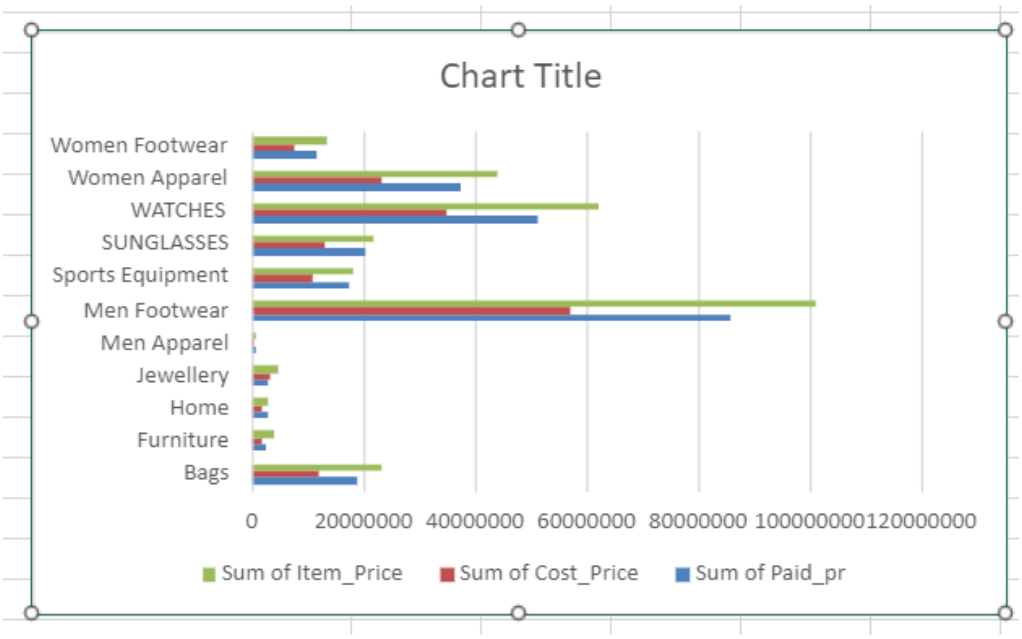
Category	Sum of Paid_pr	Sum of Item_Price	Sum of Cost_Price	Sum of Special_Price_effective
Bags	18949494	23272288	11924801.68	20420799.5
Furniture	2401258	3961755	1970201.3	2431135
Home	2956426	3051213	1731058.26	2956426
Jewellery	2839168	4549307	3082833.62	3015659.5
Men Apparel	630925	723305	403641.04	630932.5
Men Footwear	85645319	101245089	57230195.4	90214474
Sports Equipment	17485201	18085020	11043002.34	17552201
SUNGLASSES	20372305	21935695	13250754.85	21419278.5
WATCHES	51219020	62213793	34806973.68	53416003
Women Apparel	37533749	44010575	23329636.63	38475536.25
Women Footwear	11801140	13408398	7521249.33	12240229.25
Grand Total	**251834005**	**296456438**	**166294348.1**	**262772674.5**



- Create a bar chart to visualize the total sales for each category.

  Steps:

  -> From created pivot table, In Insert tab->Recommendations->Click Bar



- Create a pie chart to show the distribution of products in the "Family" category.

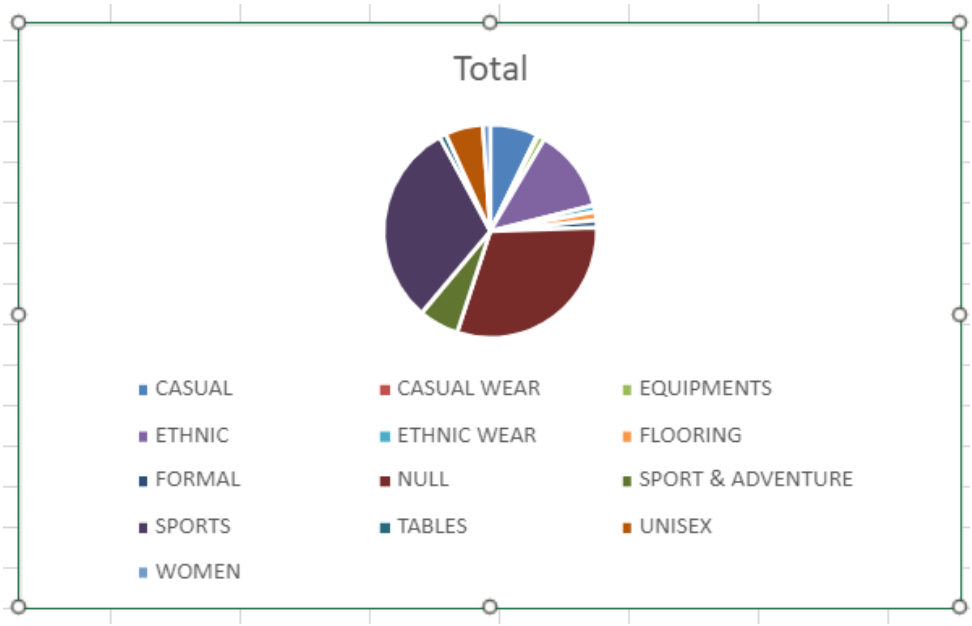
Steps:

1) Go to Insert Table -> Click On Pivot Table->Click OK

2) A pivot table created , select desired fields like

(Family,Sum of Quantity)

3) In Insert tab->Recommendations->Click Pie



Family	Sum of Quantity
CASUAL	3670
CASUAL WEAR	121
EQUIPMENTS	527
ETHNIC	6426
ETHNIC WEAR	505
FLOORING	641
FORMAL	562
NULL	15561
SPORT & ADVENTURE	3087
SPORTS	15768
TABLES	524
UNISEX	2912
WOMEN	576
Grand Total	**50880**

- Ensure that the "Payment_Method" column only contains valid paymentmethods (e.g.,Visa, MasterCard).

  SELECT * FROM paytm_data.paytm WHERE Payment_Method in ('cod','prepaid');

S.no	Name	Shipping_city	Category_Grouped	Category	Sub_category	Product_Gender	Segment	Class
1	ABHINAV CHATTER	Jabalpur	Others	SUNGLASSES	SUNGLASSES	UNISEX	SUNGLASSES	AVIATOR
2	AMIT GALPHADE	Ahmedabad	Apparels	Sports Equipment	Sports Apparel	MEN	MENS WEAR	TOPS
3	PRABHU NAMBIAPP	Chennai	Others	Bags	Bags	UNISEX	UNISEX	NULL
4	MALLIKARJUNA H	Bangalore	Apparels	Sports Equipment	Sports Apparel	MEN	MENS WEAR	TOPS
5	ANUPAM UPADHYAY	Gurgaon		Men Footwear	Mens Footwear	MEN	MENS FOOTWEAR	NULL
6	SITAL DE	Aalo	Shoes	Men Footwear	Mens Footwear	MEN	MENS FOOTWEAR	NULL
7	Abdul Qadir Sha	Kalyan		Men Footwear	MENS FOOTWEAR	MEN	MENS FOOTWEAR	NULL
8	kunal lavekar	Pune	Shoes	Men Footwear	Mens Footwear	MEN	MENS FOOTWEAR	NULL
9	Hardeep Mohan	Bangalore	Shoes	Men Footwear	Mens Footwear	MEN	MENS FOOTWEAR	NULL
10	ASHWIN GIDWANI	Pune	Apparels	Sports Equipment	Sports Apparel	MEN	MENS WEAR	TOPS
11	R RAMAKRISHNAN	Pune		Men Footwear	Mens Footwear	MEN	MENS FOOTWEAR	NULL
12	JAYAKISHOR RACH	Hyderabad		Men Footwear	MENS FOOTWEAR	MEN	MENS FOOTWEAR	NULL
13	parmendra kumar	New Delhi		Men Footwear	Mens Footwear	MEN	MENS FOOTWEAR	NULL
14	SANJAY SAINI	New Delhi		Men Footwear	MENS FOOTWEAR	MEN	MENS FOOTWEAR	NULL

21 18:31:33 SELECT * FROM paytm_data.paytm WHERE Payment_Method in ('cod','prepaid') LIMIT 0, 1000 1000 row(s) returned

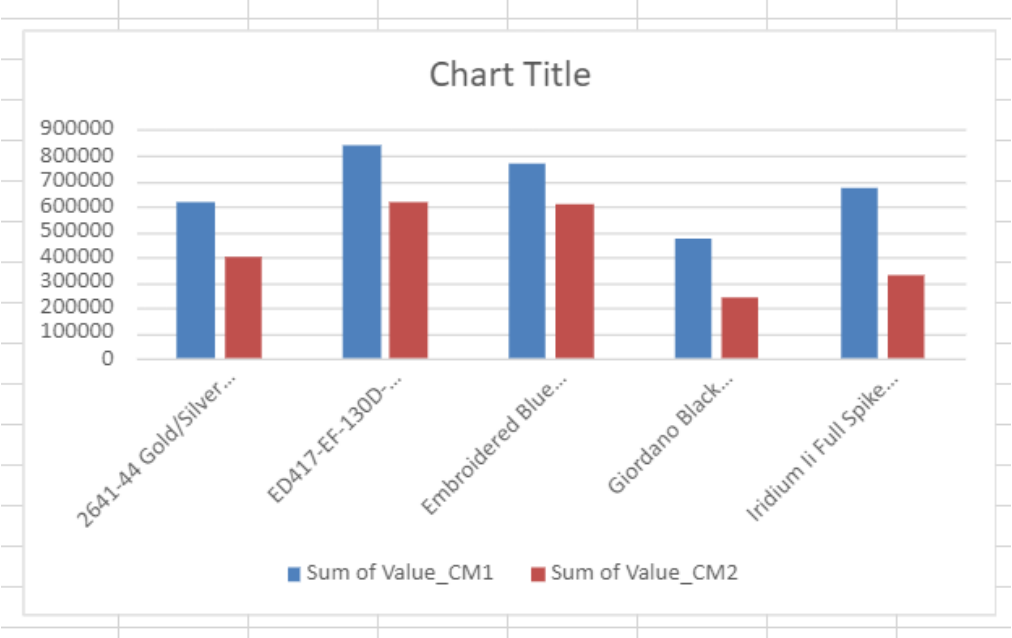
- Calculate the average "Quantity" sold for products in the "Clothing" category, grouped by "Product_Gender."

```
SELECT Product_Gender,AVG(Quantity) as Avg_Quantity FROM paytm_data.paytm
WHERE Category in ('SUNGLASSES','Men Footwear','Women Footwear','WATCHES','Women Apparel','Men Apparel','Jewellery')
GROUP BY Product_Gender;
```

Result Grid | Filter Rows:

Product_Gender	Avg_Quantity
UNISEX	1.0000
MEN	1.0002
WOMEN	1.0015

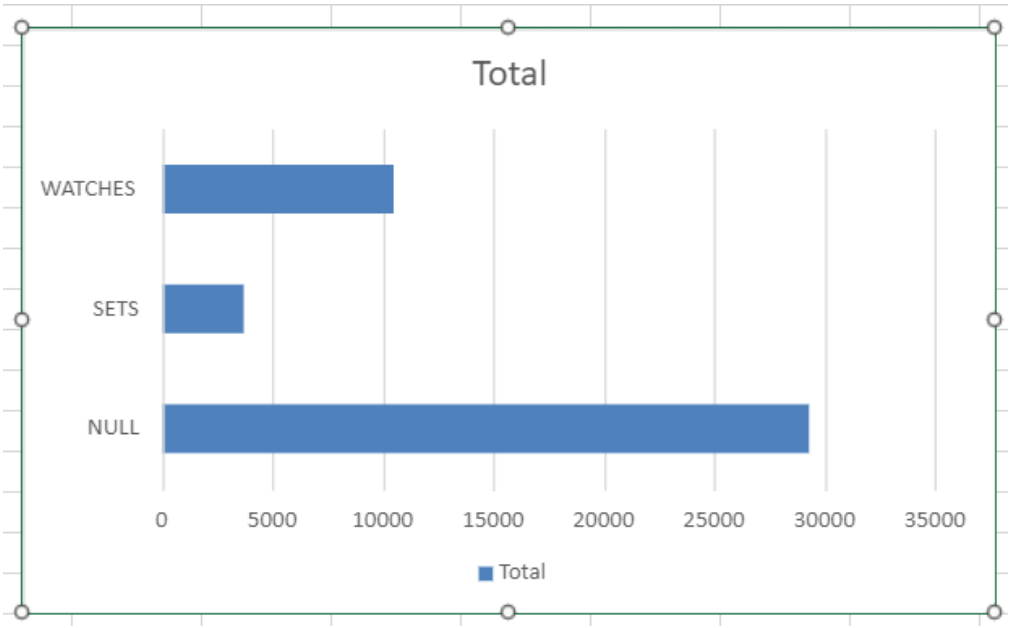
- Find the top 5 products with the highest "Value_CM1" and "Value_CM2" ratios. Create a chart to visualize this data.




```
SELECT DISTINCT(Item_NM),(Value_CM1/Value_CM2) AS Ratio
FROM  paytm_data.paytm
ORDER BY Ratio DESC LIMIT 5;
```

Item_NM	Sum of Value_CM1	Sum of Value_CM2
2641-44 Gold/Silver Analog Watch	612992.16	400471.16
ED417-EF-130D-1A2VDF silver Analog Watch	835797.29	616411.29
Embroidered Blue Dress Material - Mksp	765833	609085
Giordano Black Chronograph Watches	469632.2	241114.2
Iridium Ii Full Spike White Cricket Shoes	670948.71	331713.71
Grand Total	**3355203.36**	**2198795.36**

- Identify the top 3 "Class" categories with the highest total sales. Create a stacked bar chart to represent this data.




```
SELECT distinct(Class),SUM(Quantity) as Total_sales FROM
paytm_data.paytm
GROUP BY Class ORDER BY Total_Sales DESC
LIMIT 3;
```

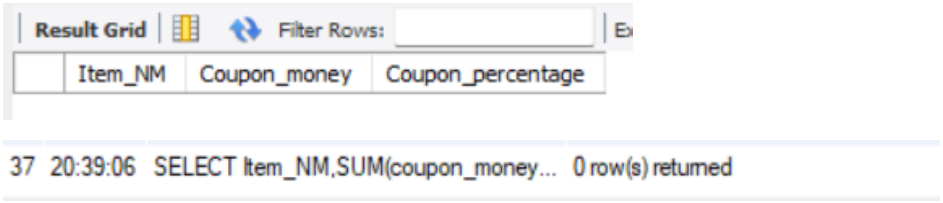
Class	Sum of Quantity
NULL	29332
SETS	3755
WATCHES	10456
Grand Total	**43543**

- Use VLOOKUP or INDEX-MATCH to retrieve the "Color" of a product with a specific "Item_NM."

```
=VLOOKUP([@Color], paytm_data.data[[#All],[Item_NM]:[Color]],
2, 0)
```

- Calculate the total "coupon_money_effective" and "Coupon_Percentage" for products in the "Electronics" category.

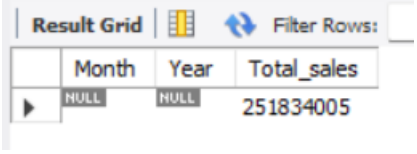
```
SELECT Item_NM,SUM(coupon_money_effective) AS
Coupon_money,SUM(Coupon_Percentage)
AS Coupon_percentage FROM paytm_data.paytm
WHERE Category='Electronics' GROUP BY Item_NM;
```



- Perform a time series analysis to identify the month with the highest total sales.

```
SELECT EXTRACT(MONTH FROM Sale_Flag) AS Month,
EXTRACT(YEAR FROM Sale_Flag) AS Year,
SUM(Paid_pr) AS Total_sales FROM paytm_data.paytm
GROUP BY Month, Year ORDER BY Total_sales DESC
LIMIT 1;
```

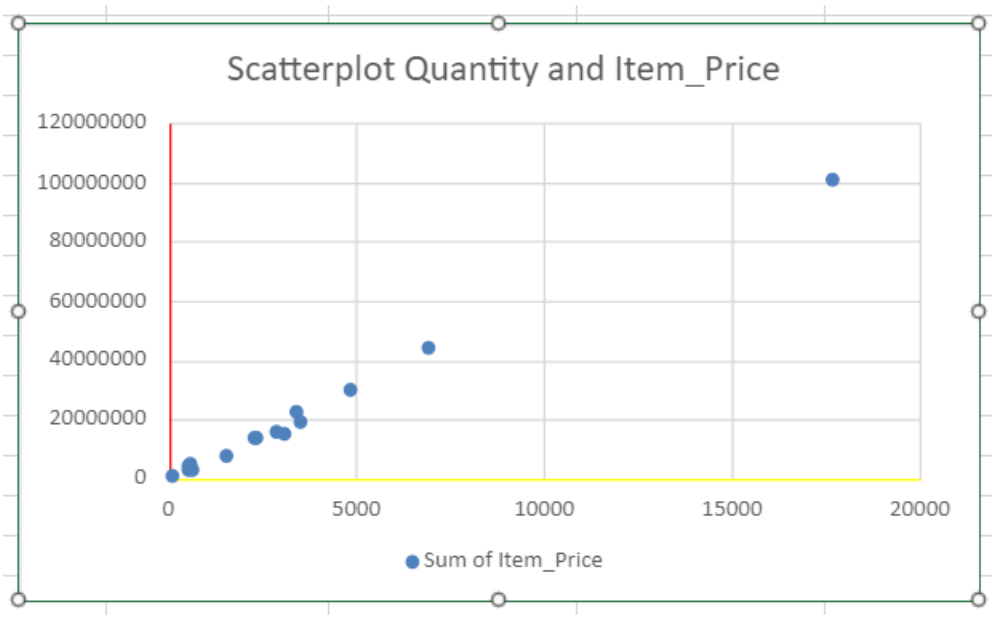
--- SINCE THERE IS NO month and year , the respected columns show NULL.



- Calculate the total sales for each "Segment" and create a scatter plot to visualize the relationship between "Item_Price" and "Quantity" in this data.

Segement	Sum of Quantity	Sum of Item_Price
HOME FURNISHING	641	3051213
LADIES FOOTWEAR	2347	13408398
LIVING	524	3961755
MEN	3422	22291728
MENS ACCESSORIES	2287	13279676
MENS APPARELS	121	723305
MENS FOOTWEAR	17653	101245089
MENS WEAR	3087	15039825
OUTDOOR & HIKING	527	3045195
SUNGLASSES	3488	18931045
UNISEX	2890	15519256
WOMEN	4828	30013131
WOMENS ACCESSO	1529	7386940
WOMENS JEWELLEI	605	4549307
WOMENS WEAR	6931	44010575

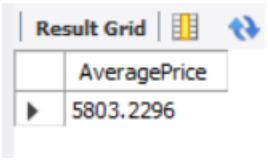
```
SELECT Segment,SUM(Item_Price*Quantity) as total_sales
FROM paytm_data.paytm
GROUP BY Segment;
```



- Use the AVERAGEIFS function to find the average "Item_Price" for roducts that have a "Sale_Flag" of 'Yes.'

  = AVERAGEIFS([Item_Price] , [Sale_Flag] , 'Yes')

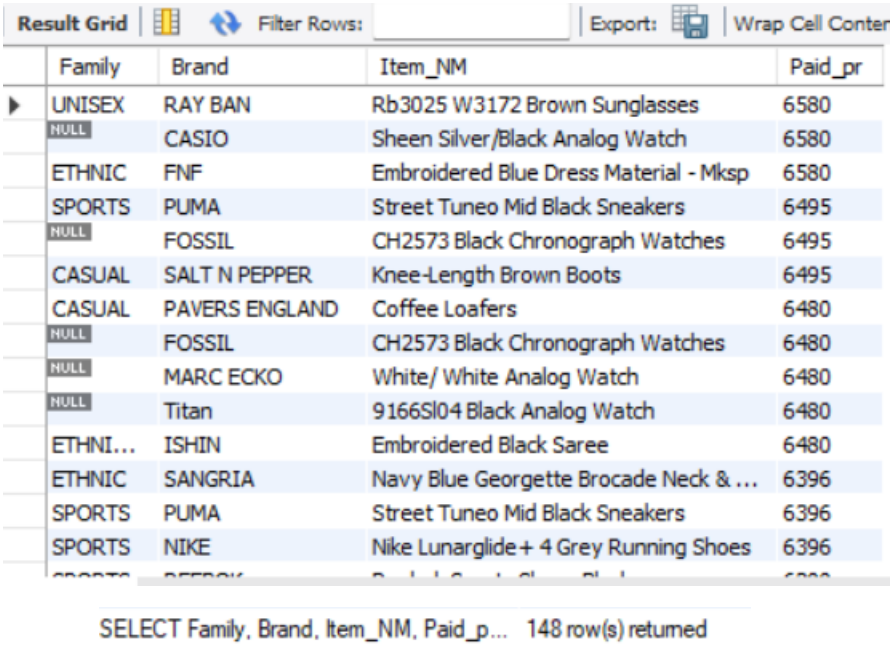
  SELECT AVG(Item_Price) AS AveragePrice
  FROM paytm_data.paytm
  WHERE Sale_Flag = 'On Sale';



- Identify products with a "Paid_pr" higher than the average in their respective "Family" and "Brand" groups.

  SELECT Family, Brand, Item_NM, Paid_pr
  FROM paytm_data.paytm

```
WHERE Paid_pr > (SELECT AVG(Paid_pr) FROM
paytm_data.paytm)
GROUP BY Family, Brand, Item_NM, Paid_pr
ORDER BY Paid_pr DESC;
```



Result Grid | Filter Rows: | Export: | Wrap Cell Conter

Family	Brand	Item_NM	Paid_pr
UNISEX	RAY BAN	Rb3025 W3172 Brown Sunglasses	6580
NULL	CASIO	Sheen Silver/Black Analog Watch	6580
ETHNIC	FNF	Embroidered Blue Dress Material - Mksp	6580
SPORTS	PUMA	Street Tuneo Mid Black Sneakers	6495
NULL	FOSSIL	CH2573 Black Chronograph Watches	6495
CASUAL	SALT N PEPPER	Knee-Length Brown Boots	6495
CASUAL	PAVERS ENGLAND	Coffee Loafers	6480
NULL	FOSSIL	CH2573 Black Chronograph Watches	6480
NULL	MARC ECKO	White/ White Analog Watch	6480
NULL	Titan	9166Sl04 Black Analog Watch	6480
ETHNI...	ISHIN	Embroidered Black Saree	6480
ETHNIC	SANGRIA	Navy Blue Georgette Brocade Neck & ...	6396
SPORTS	PUMA	Street Tuneo Mid Black Sneakers	6396
SPORTS	NIKE	Nike Lunarglide+ 4 Grey Running Shoes	6396

SELECT Family, Brand, Item_NM, Paid_p... 148 row(s) returned

- Create a pivot table to show the total sales for each "Color" within the "Clothing" category and use conditional formatting to highlight the highest sales.

Row Labels	Sum of Paid_pr
Jewellery	2839168
GOLDEN	2839168
Men Apparel	630925
BEIGE	630925
Men Footwear	85645319
BLACK	32936218
BLUE	5927983
BROWN	2538884
COFFEE	4288977
GREY	20042856
RED	3229678
TAN	4263143
WHITE	12417580
SUNGLASSES	20372305
BROWN	5572768
GREEN	8095953
GREY	6703584
WATCHES	51219020
BLACK	19883893
GOLD	6881169
SILVER	13521130
WHITE	10932828
Women Apparel	37533749
BLACK	2527069
BLUE	7823838
GREEN	2817863
MULTI	5122570
NAVY BLUE	19242409
Women Footwear	11801140
BLACK	3475650
BROWN	756450
PINK	3203170
YELLOW	4365870