

**MYSQL CASE STUDY PROJECT**

# **WHOLE FOOD MARKET DATA ANALYSIS**

<https://github.com/Luckshaya>

[https://www.codingninjas.com/studio/profile/Luckshaya\\_Kem](https://www.codingninjas.com/studio/profile/Luckshaya_Kem)

# CASE STATEMENT

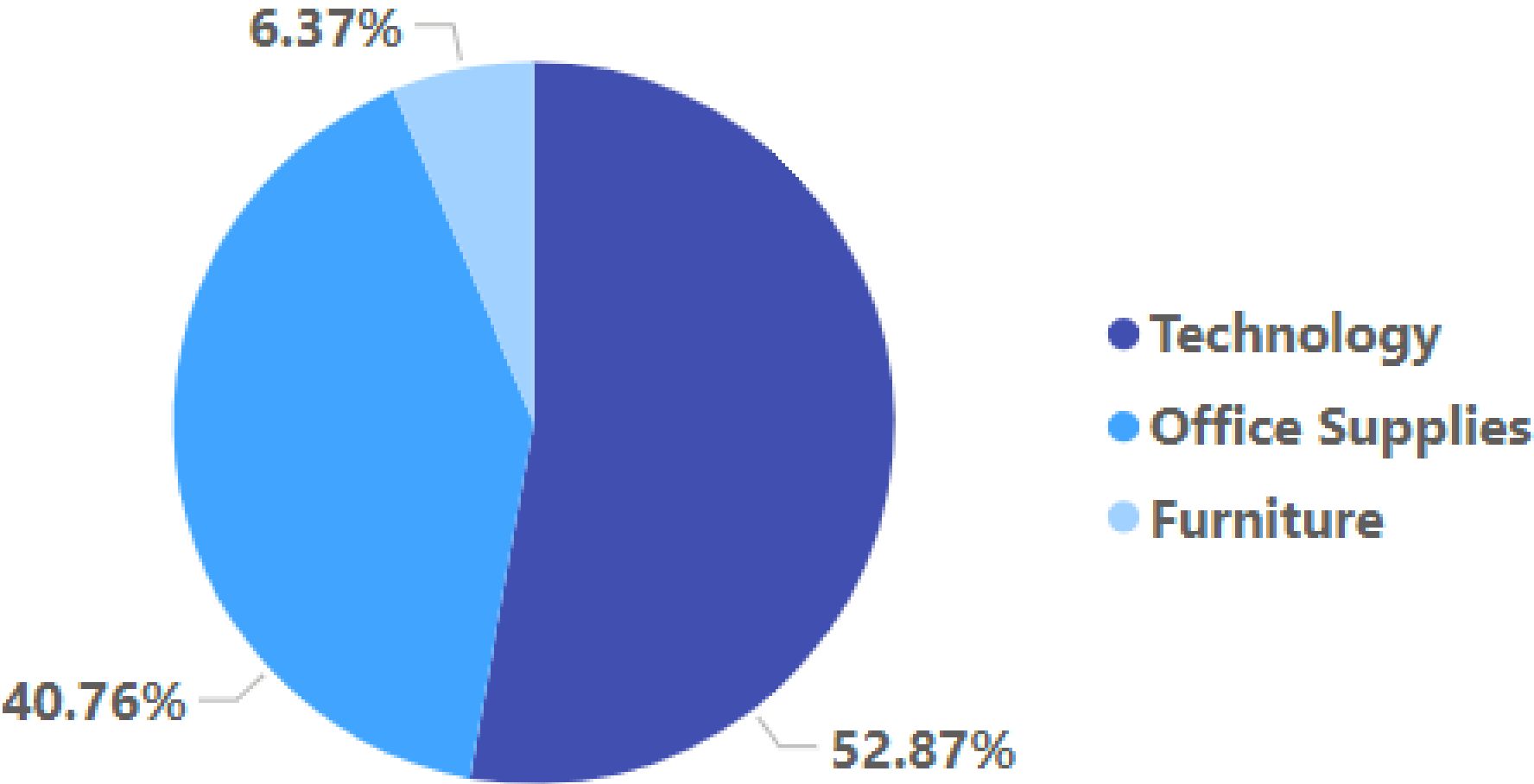
The big **multinational company "Whole Foods market"** wants to revamp their **retail strategy** in India. You as a newly **hired Data Analyst** have been asked to be a part of the project. Your job is to **provide analytical support** to the business in making business decisions.

You have been provided with some data around orders placed at various locations in India, people who have returned the items, and customers. All the data has been loaded into **MySQL** and you are required to write **SQL queries** to help the company make better **decisions**.

# FIND OUT WHICH CATEGORY IS PERFORMING BETTER IN TERMS OF PROFIT

```
SELECT Category, SUM(Profit) FROM orders
GROUP BY Category
ORDER BY SUM(PROFIT) DESC
```



Category	SUM(Profit)
Technology	140586.008999999976
Office Supplies	108386.220599999961
Furniture	16944.378




# UPDATE THE CITY AS CHANDIGARH WHERE THE STATE IS CHANDIGARH.

SET SQL\_SAFE\_UPDATES = 0; ← Used to remove ERROR1175 i.e. using safe update mode

UPDATE market SET City = 'Chandigarh'  
WHERE State = 'Chandigarh';  
SELECT \* FROM orders

Import:    Wrap Cell Content: 				
Order ID	Segment	State	City	Product ID
1	Consumer	Chandigarh	Delhi	FUR-CH-1000086
2	Consumer	Chandigarh	Delhi	TEC-AC-1000155
3	Consumer	Chandigarh	Delhi	FUR-FU-1000400

Wrap Cell Content: 			
Segment	State	City	Product ID
Consumer	Chandigarh	Chandigarh	FUR-CH-10
Consumer	Chandigarh	Chandigarh	TEC-AC-10
Consumer	Chandigarh	Chandigarh	FUR-FU-10

# HOW MUCH COMPANY PROFIT HAS BEEN GENERATED BY THE COMPANY SO FAR.

SELECT SUM(Profit) FROM orders

	SUM(Profit)
▶	265916.6076000018

GET THE ORDERID, PRODUCTNAME AND PROFIT. RESULT SHOULD BE WITH RESPECT TO PROFIT(IN DECREASING ORDER)

SELECT Order\_ID, Product\_Name, Profit  
FROM orders  
WHERE Profit > 0  
ORDER BY PROFIT DESC

Order_ID	Product_Name	Profit
118689-4722-6827	Canon imageCLASS 2200 Advanced Copier	8399.976
140151-4722-8154	Canon imageCLASS 2200 Advanced Copier	6719.9808
166709-4722-4191	Canon imageCLASS 2200 Advanced Copier	5039.9856
117121-0545-9040	GBC Ibimaster 500 Manual ProClick Binding System	4946.37
116904-1120-4099	Ibico EPK-21 Electric Binding System	4630.4755
127180-4722-2624	Canon imageCLASS 2200 Advanced Copier	3919.9888
145352-3527-510	Fellowes PB500 Electric Punch Plastic Comb Bind...	3177.475
158841-1127-8489	HP Designjet T520 Inkjet Large Format Printer ...	2799.984
140158-1449-7667	Hewlett Packard LaserJet 3310 Copier	2591.9568
138289-4995-6521	GBC DocuBind P400 Electric Binding System	2504.2216
143819-3979-1086	Ativa V4110MDD Micro-Cut Shredder	2400.9657
128587-3763-8991	Canon PC1060 Personal Laser Copier	2302.9671
145544-1403-6603	HP Designjet T520 Inkjet Large Format Printer ...	2299.984



**GET ALL THE ORDERS WHERE THERE WAS A LOSS AND REPORT THE ORDER ID, PRODUCT NAME AND LOSS. SORT THE RESULT IN A FORMAT THAT THE HIGHEST LOSS IS ON THE TOP.**

```
SELECT Order_ID, Product_Name, Profit FROM orders
WHERE Profit < 0
ORDER BY PROFIT
```

Order_ID	Product_Name	Profit
108196-0418-7773	Cubify CubeX 3D Printer Double Head Print	-6599.978
168116-4125-684	Cubify CubeX 3D Printer Triple Head Print	-3839.9904
169019-4995-9775	GBC DocuBind P400 Electric Binding System	-3701.8928
134845-0822-3012	Lexmark MX611dhe Monochrome Laser Printer	-3399.98
122714-1120-4992	Ibico EPK-21 Electric Binding System	-2929.4845
147830-0418-3152	Cubify CubeX 3D Printer Double Head Print	-2639.9912
131254-3527-5311	Fellowes PB500 Electric Punch Plastic Comb Bind...	-2287.782
116638-0198-9640	Chromcraft Bull-Nose Wood Oval Conference T...	-1862.3124
130946-4995-1200	GBC DocuBind P400 Electric Binding System	-1850.9464
145317-2412-2698	Cisco TelePresence System EX90 Videoconferen...	-1811.0784
165309-1359-3325	GBC DocuBind TL300 Electric Binding System	-1480.0335
139892-0822-166	Lexmark MX611dhe Monochrome Laser Printer	-1359.992
122222-1225-2222	GBC DocuBind P400 Electric Binding System	-1222.5524

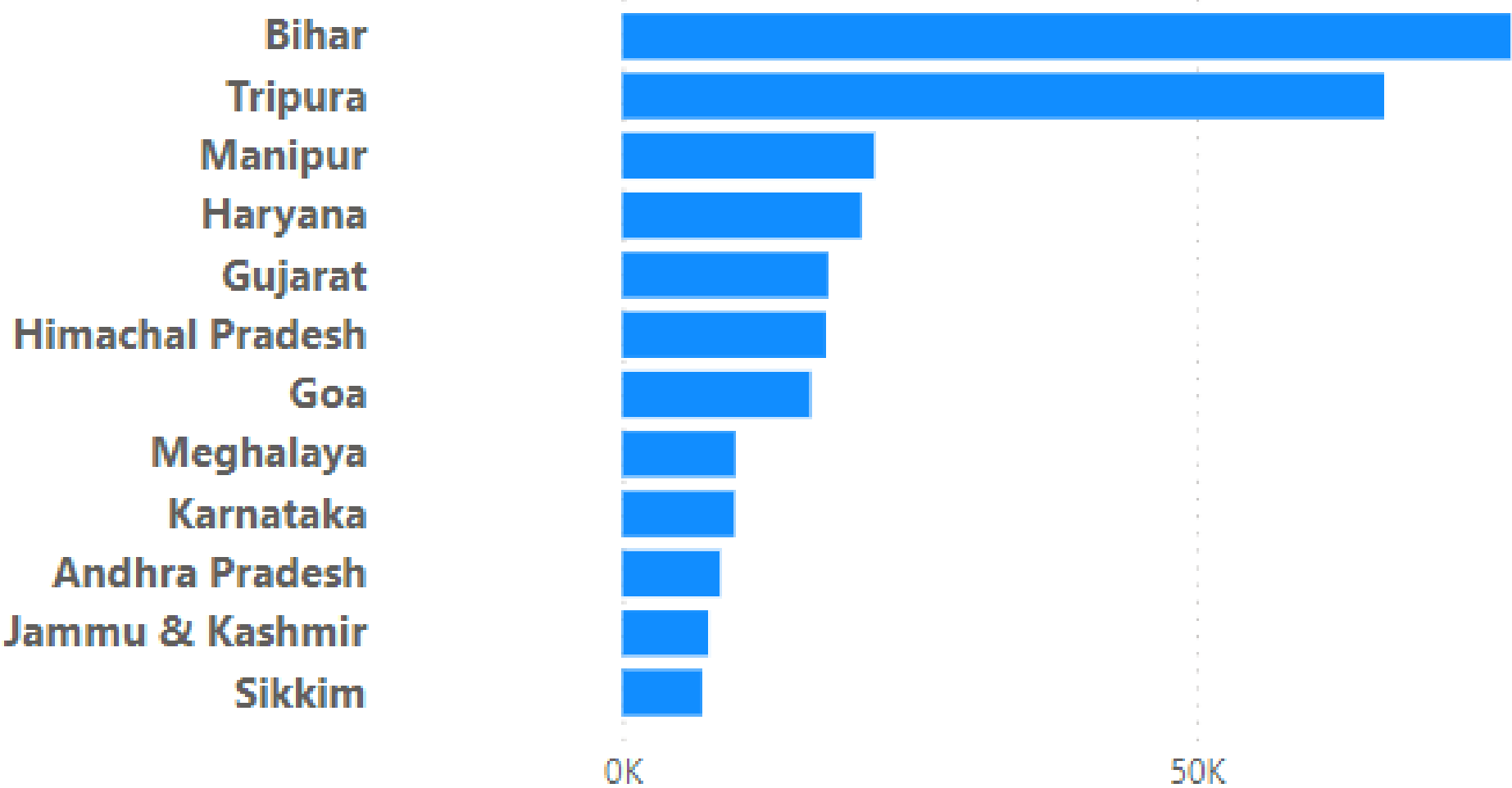
GET THE LIST OF ALL ORDERS WHICH HAVE LOSS AND SORT THEM IN  
DESCENDING ORDER OF DISCOUNT GIVEN.  
PRINT ORDERID, PRODUCTNAME, PROFIT AND DISCOUNT.

SELECT Order\_ID, Product\_Name, Profit, Discount FROM orders  
WHERE Profit < 0  
ORDER BY Discount DESC

Order_ID	Product_Name	Profit	Discount
118983-0756-16	Storex DuraTech Recycled Plastic Frosted Binders	-3.816	0.8
118038-4182-76	Economy Binders	-1.9344	0.8
158568-2609-102	Avery Hidden Tab Dividers for Binding Systems	-3.0396	0.8
139892-2518-170	Kensington 7 Outlet MasterPiece Power Center	-453.849	0.8
100853-0891-175	Kensington 7 Outlet MasterPiece HOMEOFFICE ...	-131.12	0.8
116701-3217-204	Eureka Sanitaire Commercial Upright	-178.9668	0.8
155299-2203-262	Eureka Disposable Bags for Sanitaire Vibra Groo...	-4.466	0.8
161991-4967-281	Round Ring Binders	-3.432	0.8
130792-0696-379	Holmes Odor Grabber	-20.3322	0.8
134971-3982-394	Wilson Jones Century Plastic Molded Ring Binders	-20.5623	0.8
100419-2194-470	Cardinal Hold-It CD Pocket	-7.9002	0.8
157812-0285-522	XtraLife ClearVue Slant-D Ring Binders by Cardinal	-21.168	0.8

GET THE STATE AND SUM OF PROFIT FOR EACH STATE. THE RESULT SHOULD BE IN INCREASING ORDER OF PROFIT.

SELECT State, SUM(Profit) from orders  
GROUP BY State  
ORDER BY SUM(Profit)



State	SUM(Profit)
Daman & Diu	-19289.8026999999993
West Bengal	-14439.574999999999
Uttar Pradesh	-6867.0601000000005
Assam	-6750.1754000000005
Arunachal Pradesh	-4019.0708000000003
Chandigarh	-3381.18080000000046
Delhi	-1118.28340000000003
Uttaranchal	236.26029999999997
Lakshadweep	420.66519999999997
Jharkhand	906.27200000000002
Tamil Nadu	911.33270000000002
Rajasthan	1191.673



# GET STATE, CATEGORY AND SUM OF PROFITS.

SELECT State, Category, SUM(Profit) FROM orders  
GROUP BY State, Category

State	Category	SUM(Profit)
Karnataka	Furniture	2145.7453
Bihar	Office Supplies	34406.302300000006
Delhi	Furniture	-1657.02390000000004
Delhi	Office Supplies	-498.697300000000015
Bihar	Furniture	8987.0937999999995
Bihar	Technology	34017.525699999999
Uttar Pradesh	Office Supplies	-384.69949999999999
Haryana	Office Supplies	2717.96450000000005
Daman & Diu	Office Supplies	-17496.458599999998
Jammu & Kashmir	Office Supplies	1961.26450000000002
Pondicherry	Office Supplies	382.582099999999997
Assam	Furniture	-2827.2292

You realised that there are three segments of products: Consumer, Corporate and Home office. You ask your manager to provide you a list of the people who are managing these segments. Unfortunately these are not present in the database. Since you want to digitise the system, you plan to put the data in the database. He provides you the data on a sheet of paper as follows:

Segment - Varchar(100)

Segment\_Manager- Varchar(100)

**WRITE A QUERY TO CREATE A TABLE IN THE DATABASE WITH NAME AS  
MANAGER AND WITH VALUES PROVIDED. DO ASSIGN PROPER PRIMARY KEY.**



```
CREATE TABLE Manager (Segment Varchar(100) PRIMARY KEY,  
Segment_Manager Varchar(100));  
INSERT INTO Manager VALUES ('Consumer','Gaganjit Singh');  
INSERT INTO Manager VALUES ('Corporate','Aman Jain');  
INSERT INTO Manager VALUES ('Home Office','Kush Arora');  
SELECT * from manager
```

Segment	Segment_Manager
Consumer	Gaganjit Singh
Corporate	Aman Jain
Home Office	Kush Arora
NULL	NULL

## GET SEGMENT, COUNT OF ORDER, SUM OF PROFIT.

```
SELECT Segment, COUNT(Order_ID), SUM(Profit) FROM orders  
GROUP BY Segment
```

Segment	COUNT(Order_ID)	SUM(Profit)
Consumer	5191	125324.856399999933
Corporate	3020	83330.632599999992
Home Office	1783	57261.118600000074



## GET SUM OF SALES, SUM OF PROFIT FOR THE YEAR 2020.

```
SELECT SUM(Sales), SUM(Profit) FROM orders  
WHERE Order_Date Like '%20'
```

SUM(Sales)	SUM(Profit)
498862.7036000001	73285.96870000008

## GET THE SUM OF SALES OF EACH SEGMENT AND THEIR RESPECTIVE SEGMENT MANAGER FOR ALL YEARS EXCEPT 2020.

```
SELECT SUM(orders.Sales),manager.Segment_Manager FROM orders  
LEFT JOIN manager  
ON orders.Segment = manager.Segment  
WHERE Order_Date NOT LIKE '%20'  
GROUP BY orders.Segment
```

SUM(orders.Sales)	Segment_Manager
728733.1449999991	Gaganjit Singh
277010.88029999984	Kush Arora
408922.81760000007	Aman Jain

## ANALYSIS AT CUSTOMER LEVEL

**GET CUSTOMER ID AND SUM OF PROFIT FOR EACH. THE RESULT SHOULD BE SUCH THAT YOU ARE EASILY ABLE TO FIND THE HIGHEST PROFIT CUSTOMER.**

```
SELECT Customer_ID, SUM(Profit)
FROM orders
GROUP BY Customer_ID
ORDER BY SUM(Profit) DESC
```

Customer_ID	SUM(Profit)
TC-20980	8971.4826000000001
RB-19360	6976.0959
SC-20095	5754.1322999999999
HL-15040	5604.0643
AB-10105	5244.1755
TA-21385	4703.7882999999999
CM-12385	3899.8903999999998
DR-12940	3267.5342
KD-16495	3009.1782
AR-10540	2863.8018
NM-18445	2733.0810999999999
SF-20110	2574.7371999999999



**FIND THE CUSTOMER DETAILS HAVING THE HIGHEST PROFIT. THE RESULT SHOULD BE SUCH THAT YOU ARE EASILY ABLE TO FIND THE HIGHEST PROFITABLE CUSTOMER.**  
**THE QUERY SHOULD HAVE COLUMNS : CUSTOMER\_ID, CUSTOMER\_NAME\_, SUM OF SALES, SUM OF PROFIT, COUNT OF ORDER\_ID.**

SELECT orders.Customer\_ID, customers.Customer\_Name\_, SUM(orders.Sales),  
SUM(orders.Profit), COUNT(orders.Order\_ID) FROM orders  
JOIN customers  
ON orders.Customer\_ID = customers.Customer\_ID  
GROUP BY orders.Customer\_ID, customers.Customer\_Name\_  
ORDER BY SUM(orders.Profit) DESC

	Customer_ID	Customer_Name_	SUM(orders.Sales)	SUM(orders.Profit)	COUNT(orders.Order_ID)
▶	TC-20980	Shri Kistur Chand Jat	19017.847999999998	8971.4826000000001	12
	RB-19360	Abhisek Sharma	15117.339	6976.0959	18
	SC-20095	Manish Bansal	13701.673999999999	5754.1322999999999	22
	HL-15040	Tarun Kuamr	12799.908	5604.0643	11
	AB-10105	Kishan Rai	13448.946999999998	5244.1755	20
	TA-21385	Ram Darshan	14595.62	4703.7882999999999	10
	CM-12385	Mum And Singh	8954.02	3899.8903999999998	10
	DR-12940	Anand Goswami	7681.20800000000005	3267.5342	13
	KD-16495	Yogesh Chandra Joshi	7604.19000000000005	3009.1782	28
	AR-10540	Ram Kishore	6534.49800000000005	2863.8018	9
	NM-18445	Prakash Chand Meena	6401.2139999999999	2733.0810999999999	14
	SE-20110	Manoj Jha	11915.628	2574.7371999999999	19

*Thank  
you!*