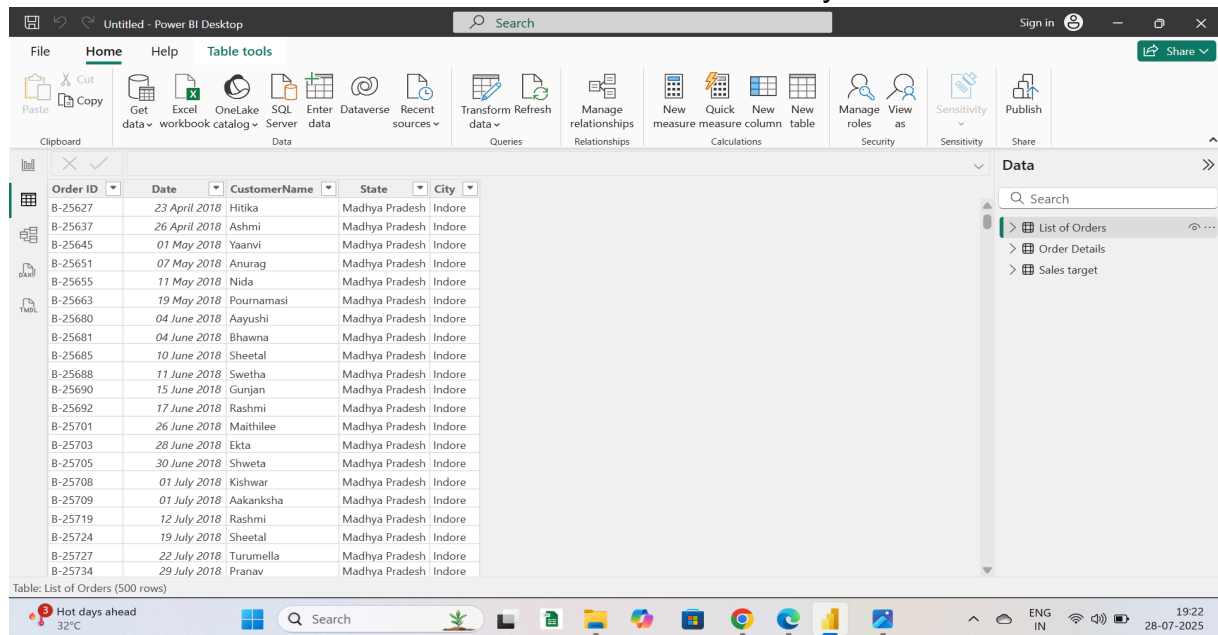


Power BI Assignment :

IMPORT DATA:

1. 3 Dataset has been loaded in PowerBI
2. 3 Dataset has been transformed to Power Query Editor.

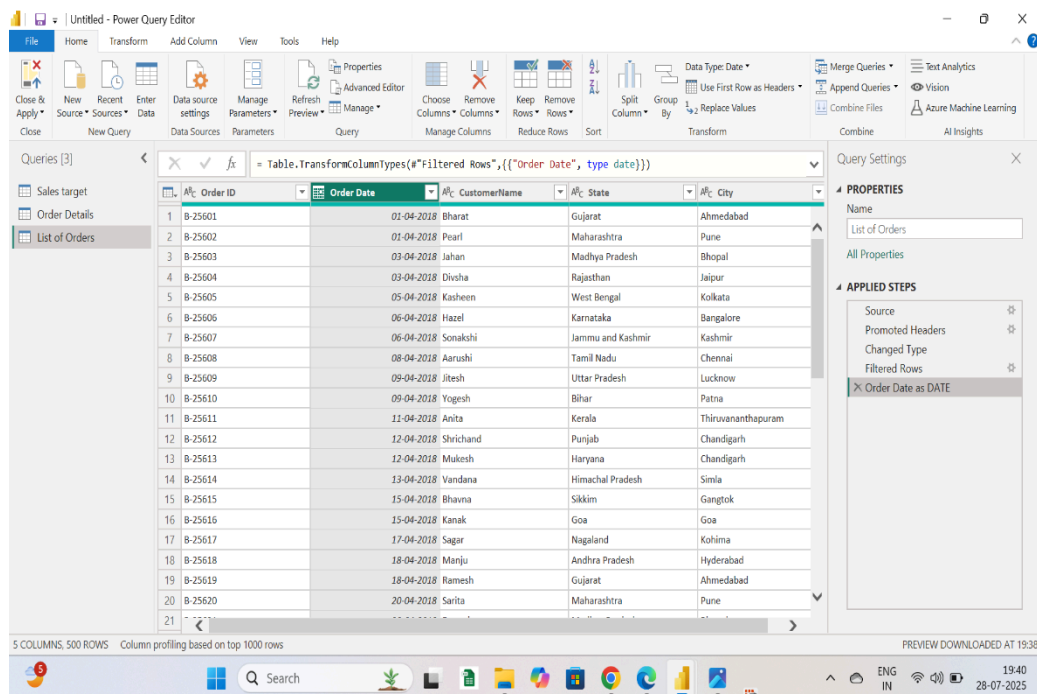


The screenshot shows the Power BI Desktop interface. The 'Table tools' ribbon is active, and a table named 'List of Orders' is displayed. The table has 500 rows and 5 columns: Order ID, Date, CustomerName, State, and City. The data is filtered to show the first 20 rows. The 'Data' pane on the right shows the 'List of Orders' table selected. The status bar at the bottom indicates 'Table: List of Orders (500 rows)'.

Order ID	Date	CustomerName	State	City
B-25627	23 April 2018	Hitika	Madhya Pradesh	Indore
B-25637	26 April 2018	Ashmi	Madhya Pradesh	Indore
B-25645	01 May 2018	Yaanvi	Madhya Pradesh	Indore
B-25651	07 May 2018	Anurag	Madhya Pradesh	Indore
B-25655	11 May 2018	Nida	Madhya Pradesh	Indore
B-25663	19 May 2018	Pournamasi	Madhya Pradesh	Indore
B-25680	04 June 2018	Aayushi	Madhya Pradesh	Indore
B-25681	04 June 2018	Bhawna	Madhya Pradesh	Indore
B-25685	10 June 2018	Sheetal	Madhya Pradesh	Indore
B-25688	11 June 2018	Swetha	Madhya Pradesh	Indore
B-25690	15 June 2018	Gunjan	Madhya Pradesh	Indore
B-25692	17 June 2018	Rashmi	Madhya Pradesh	Indore
B-25701	26 June 2018	Maithilee	Madhya Pradesh	Indore
B-25703	28 June 2018	Ekta	Madhya Pradesh	Indore
B-25705	30 June 2018	Shweta	Madhya Pradesh	Indore
B-25708	01 July 2018	Kishwar	Madhya Pradesh	Indore
B-25709	01 July 2018	Aakanksha	Madhya Pradesh	Indore
B-25719	12 July 2018	Rashmi	Madhya Pradesh	Indore
B-25724	19 July 2018	Sheetal	Madhya Pradesh	Indore
B-25727	22 July 2018	Turumella	Madhya Pradesh	Indore
B-25734	29 July 2018	Pranav	Madhya Pradesh	Indore

DATA TRANSFORMATION:

- 1.List of Orders has been restricted to 500 Rows.
- 2.Order Date Column has been set to Data type 'DATE'.



The screenshot shows the Power Query Editor interface. The 'Table.TransformColumnTypes' function is applied to the 'List of Orders' table. The 'Order Date' column is selected, and its data type is set to 'DATE'. The 'Applied Steps' pane on the right shows the transformation steps: 'Source', 'Promoted Headers', 'Changed Type', 'Filtered Rows', and 'Order Date as DATE'. The status bar at the bottom indicates '5 COLUMNS, 500 ROWS'.

Order ID	Order Date	CustomerName	State	City
B-25601	01-04-2018	Bharat	Gujarat	Ahmedabad
B-25602	01-04-2018	Pearl	Maharashtra	Pune
B-25603	03-04-2018	Jahan	Madhya Pradesh	Bhopal
B-25604	03-04-2018	Divsha	Rajasthan	Jaipur
B-25605	05-04-2018	Kasheen	West Bengal	Kolkata
B-25606	06-04-2018	Hazel	Karnataka	Bangalore
B-25607	06-04-2018	Sonakshi	Jammu and Kashmir	Kashmir
B-25608	08-04-2018	Aarushi	Tamil Nadu	Chennai
B-25609	09-04-2018	Ritesh	Uttar Pradesh	Lucknow
B-25610	09-04-2018	Yogesh	Bihar	Patna
B-25611	11-04-2018	Anita	Kerala	Thiruvananthapuram
B-25612	12-04-2018	Shrichand	Punjab	Chandigarh
B-25613	12-04-2018	Mukesh	Haryana	Chandigarh
B-25614	13-04-2018	Vandana	Himachal Pradesh	Simla
B-25615	15-04-2018	Bhavina	Sikkim	Gangtok
B-25616	15-04-2018	Kanak	Goa	Goa
B-25617	17-04-2018	Sagar	Nagaland	Kohima
B-25618	18-04-2018	Manju	Andhra Pradesh	Hyderabad
B-25619	18-04-2018	Ramesh	Gujarat	Ahmedabad
B-25620	20-04-2018	Sarita	Maharashtra	Pune

3.Data type of TARGET and AMOUNT has been changed to FIXED Decimal Number.

Picture		Formatting		
Amount	Profit	Quantity	Category	
561.00	212	3	Clothin	
119.00	-5	8	Clothin	
193.00	-166	3	Clothin	
157.00	5	9	Clothin	
75.00	0	7	Clothin	
25.00	-5	4	Clothin	
43.00	0	3	Clothin	
160.00	-59	2	Clothin	
1603.00	0	9	Clothin	
353.00	90	8	Clothin	
534.00	0	3	Clothin	
149.00	-87	4	Clothin	
635.00	-349	5	Clothin	
24.00	-9	4	Clothin	
711.00	-8	4	Clothin	
382.00	30	3	Clothin	
637.00	113	5	Clothin	
122.00	-47	4	Clothin	
20.00	-8	2	Clothin	
42.00	-6	4	Clothin	
55.00	-26	4	Clothin	

(1,500 rows) Column: Amount (585 distinct values)

Power BI Desktop

Help Table tools

Manage relationships Relationships New measure

Date	Category	Target
April 2018	Furniture	10400.00
May 2018	Furniture	10500.00
June 2018	Furniture	10600.00
July 2018	Furniture	10800.00
August 2018	Furniture	10900.00
September 2018	Furniture	11000.00
October 2018	Furniture	11100.00
November 2018	Furniture	11300.00
December 2018	Furniture	11400.00
January 2019	Furniture	11500.00
February 2019	Furniture	11600.00
March 2019	Furniture	11800.00
April 2018	Clothing	12000.00
May 2018	Clothing	12000.00
June 2018	Clothing	14000.00
July 2018	Clothing	14000.00
August 2018	Clothing	14000.00
September 2018	Clothing	14000.00
October 2018	Clothing	16000.00
November 2018	Clothing	16000.00
December 2018	Clothing	16000.00

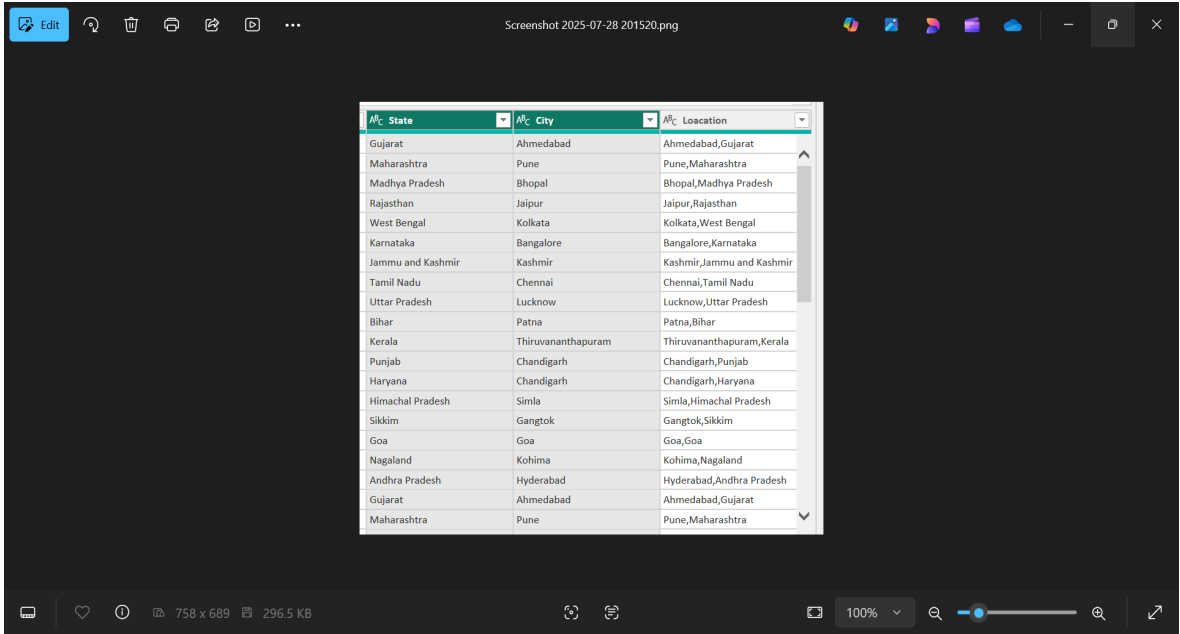
4.Customer Name is in Proper Case.

5.Merge 'STATE and CITY' into LOCATION AS CITY,STATE.

Power BI Assignment :

IMPORT DATA:

- 1. 3 Dataset has been loaded in PowerBI
- 2. 3 Dataset has been transformed to Power Query Editor.



7.A NEW COLUMN has been created as PROFIT STATUS.

re	Formatting	Properties	Sort	Groups	Relationships	Cal
1 Profit Status = if('Order Details'[Profit]<0,"Loss",if('Order Details'[Profit]=0,"Break-Even",if('Order Details'[Profit]>0,"Profit")))						
Amount	Profit	Quantity	Category	Sub-Category	Profit Margin	Profit Status
561.00	21200%	3	Clothing	Saree	37.7896613190731	Profit
119.00	-500%	8	Clothing	Saree	-4.20168067226891	Loss
193.00	-16600%	3	Clothing	Saree	-86.0103626943005	Loss
157.00	500%	9	Clothing	Saree	3.18471337579618	Profit
75.00	0%	7	Clothing	Saree	0	Break-Even
25.00	-500%	4	Clothing	Saree	-20	Loss
43.00	0%	3	Clothing	Saree	0	Break-Even
160.00	-5900%	2	Clothing	Saree	-36.875	Loss
1603.00	0%	9	Clothing	Saree	0	Break-Even
353.00	9000%	8	Clothing	Saree	25.4957507082153	Profit
534.00	0%	3	Clothing	Saree	0	Break-Even
149.00	-8700%	4	Clothing	Saree	-58.3892617449664	Loss
635.00	-34900%	5	Clothing	Saree	-54.9606299212598	Loss
24.00	-900%	4	Clothing	Saree	-37.5	Loss
711.00	-800%	4	Clothing	Saree	-1.12517580872011	Loss
382.00	3000%	3	Clothing	Saree	7.85340314136126	Profit
637.00	11300%	5	Clothing	Saree	17.7394034536892	Profit
122.00	-4700%	4	Clothing	Saree	-38.5245901639344	Loss
20.00	-800%	2	Clothing	Saree	-40	Loss
42.00	-600%	4	Clothing	Saree	-14.2857142857143	Loss

1.LIST OF ORDERS and ORDER DETAILS has been Merged and created as new Single table as ORDER DATA

Queries [4] <

= Table.ExpandTableColumn(Source, "Order Details", {"Amount", "Profit", "Quantity", "Category",

	Amount	Order Details.Profit	Order Details.Quantity	Order Details.Category	Order Details.Sub-Category
1	1275	-1148	7	Furniture	Bookcases
2	66	-12	5	Clothing	Stole
3	8	-2	3	Clothing	Hankerchief
4	80	-56	4	Electronics	Electronic Games
5	168	-111	2	Electronics	Phones
6	424	-272	5	Electronics	Phones
7	2617	1151	4	Electronics	Phones
8	561	212	3	Clothing	Saree
9	119	-5	8	Clothing	Saree
10	1355	-60	5	Clothing	Trousers
11	24	-30	1	Furniture	Chairs
12	193	-166	3	Clothing	Saree
13	180	5	3	Clothing	Trousers
14	116	16	4	Clothing	Stole
15	107	36	6	Clothing	Stole
16	12	1	2	Clothing	Hankerchief
17	38	18	1	Clothing	Kurti
18	65	17	2	Clothing	T-shirt
19	157	5	9	Clothing	Saree
20	75	0	7	Clothing	Saree
21	17	-	-	-	-

HANDLING MISSING DATA AND DUPLICATE DATA:

- 1.NO missing data in 3 DataSet.
- 2.NO Duplicate data in 3 Dataset.

SORTING AND FILTERING:

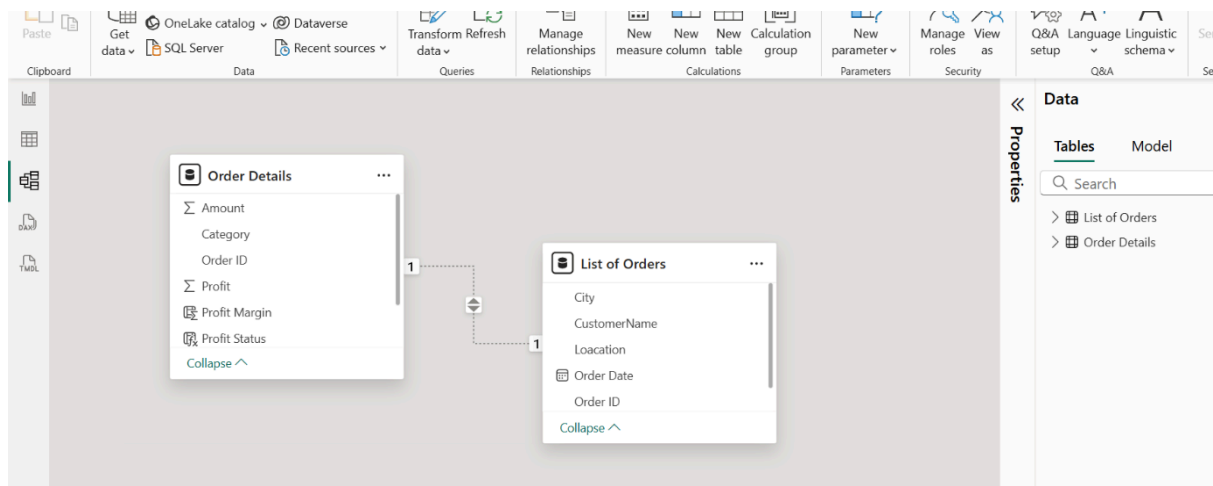
1.SORTING from descending to Ascending has been done in ORDER DATE

2.FILTERING has been done in STATE (TAMILNADU).

Order ID	Order Date	CustomerName	State	City	Loacation	Amount	Profit	Quantity	Category	St
B-26081	22 March 2019	Aarushi	Tamil Nadu	Chennai	Chennai,Tamil Nadu	359	-338	5	Furniture	Bc
B-26018	14 February 2019	Aarushi	Tamil Nadu	Chennai	Chennai,Tamil Nadu	326	107	3	Furniture	Fu
B-26008	09 February 2019	Kalyani	Tamil Nadu	Chennai	Chennai,Tamil Nadu	22	4	1	Clothing	St
B-25860	15 November 2018	Akshay	Tamil Nadu	Chennai	Chennai,Tamil Nadu	112	24	3	Clothing	Ku
B-25788	21 September 2018	Dinesh	Tamil Nadu	Chennai	Chennai,Tamil Nadu	12	3	1	Clothing	St
B-25716	11 July 2018	Surabhi	Tamil Nadu	Chennai	Chennai,Tamil Nadu	58	0	4	Clothing	Se
B-25698	23 June 2018	Amisha	Tamil Nadu	Chennai	Chennai,Tamil Nadu	87	-83	5	Clothing	Ku
B-25608	08 April 2018	Aarushi	Tamil Nadu	Chennai	Chennai,Tamil Nadu	1364	-1864	5	Furniture	Ta

DATA MODELING:

1.ORDER ID is used as common column for relationship between LIST Of ORDERS and ORDER DETAILS.



2.MANAGE RELATIONSHIP has been used to build relationship between SALES TARGET and ORDER DETAILS using Category as common column.

The screenshot shows the Power BI Desktop interface with a data model diagram. The 'Order Details' table is connected to the 'Sales target' table. The 'Order Details' table has columns: Amount, Category, Order ID, Profit, Profit Margin, and Profit Status. The 'Sales target' table has columns: Category, Month of Order Date, and Target. The relationship is a one-to-many relationship, indicated by the asterisk and arrow symbols.

1. Duplicate the Order Details table and calculate the count of each order ID, Average profit by Category.

Apply

Source

Sources

Data

Close

New Query

Settings

Parameters

Preview

Manage

Query

Columns

Columns

Rows

Rows

Sort

Column

By

Replace Values

Transform

Queries [5]

Sales target

Order Details

List of Orders

Order Data

Order Details Duplicate

✕

✓

fx

= Table.Group("#Removed Duplicates", {"Category"}, {{ "Order Details Duplicate", each List.Average(

Table

Category

1.2

Order Details Duplicate

1

Furniture

20.44318182

2

Electronics

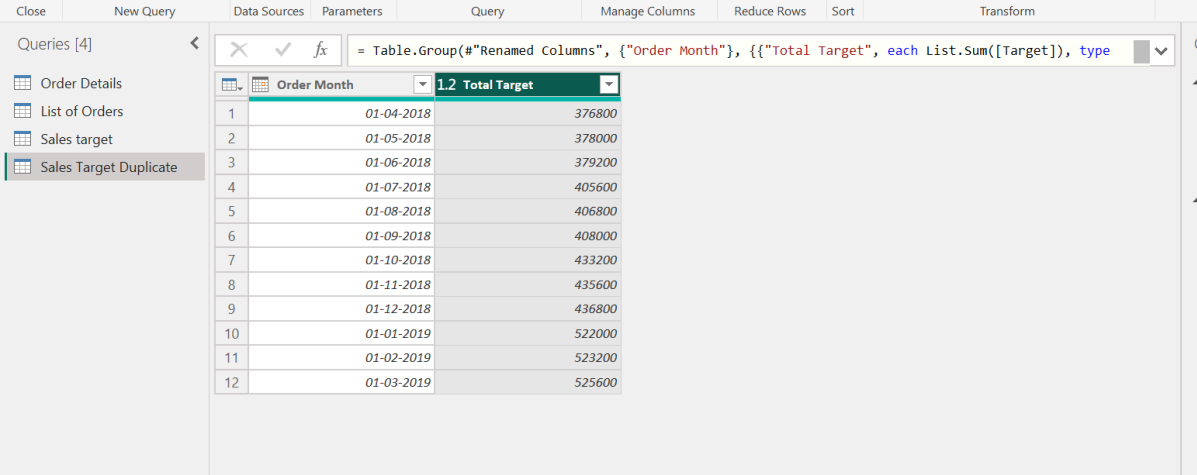
-19.37894737

3

Clothing

15.29022082

2. Duplicate the SALES TARGET and Aggregate the total target amount by month of order date.



The screenshot shows the Power BI Desktop interface. On the left, the 'Queries' pane lists four queries: 'Order Details', 'List of Orders', 'Sales target', and 'Sales Target Duplicate' (which is selected). The main area displays the 'Sales Target Duplicate' query. The formula bar shows the DAX formula: `= Table.Group(#"Renamed Columns", {"Order Month"}, {"Total Target", each List.Sum([Target]), type`. Below the formula bar, a table is shown with 12 rows and 2 columns: 'Order Month' and 'Total Target'. The data is as follows:

	Order Month	Total Target
1	01-04-2018	376800
2	01-05-2018	378000
3	01-06-2018	379200
4	01-07-2018	405600
5	01-08-2018	406800
6	01-09-2018	408000
7	01-10-2018	433200
8	01-11-2018	435600
9	01-12-2018	436800
10	01-01-2019	522000
11	01-02-2019	523200
12	01-03-2019	525600

6.New Column has been Created as Profit Margin.

Profit Margin = `DIVIDE([PROFIT],[Amount])*100`

Amount	Profit	Quantity	Category	Sub-Category	Profit Margin
561.00	21200%	3	Clothing	Saree	37.7896613190731
119.00	-500%	8	Clothing	Saree	-4.20168067226891
193.00	-16600%	3	Clothing	Saree	-86.0103626943005
157.00	500%	9	Clothing	Saree	3.18471337579618
75.00	0%	7	Clothing	Saree	0
25.00	-500%	4	Clothing	Saree	-20
43.00	0%	3	Clothing	Saree	0
160.00	-5900%	2	Clothing	Saree	-36.875
1603.00	0%	9	Clothing	Saree	0
353.00	9000%	8	Clothing	Saree	25.4957507082153
534.00	0%	3	Clothing	Saree	0
149.00	-8700%	4	Clothing	Saree	-58.3892617449664
635.00	-34900%	5	Clothing	Saree	-54.9606299212598
24.00	-900%	4	Clothing	Saree	-37.5
711.00	-800%	4	Clothing	Saree	-1.12517580872011
382.00	3000%	3	Clothing	Saree	7.85340314136126
637.00	11300%	5	Clothing	Saree	17.7394034536892
122.00	-4700%	4	Clothing	Saree	-38.5245901639344
20.00	-800%	2	Clothing	Saree	-40
42.00	-600%	4	Clothing	Saree	-14.2857142857143
55.00	-2600%	4	Clothing	Saree	-47.2727272727273

