

Task 1a- Round the 'Price' column in the Product dataset to the nearest integer for simplicity

Queries [3] ✕ ✓ fx = Table.TransformColumns(#"Promoted Headers",{{"Price", each Number.Round(_, 0), type number}}) ▼

Customer
Product
Sales

	ProductID	Category	Name	Size	Price
1	P001	Snacks	Product1	Small	67
2	P002	Drinks	Product2	Large	85
3	P003	Drinks	Product3	medium	35
4	P004	Snacks	Product4	Small	44
5	P005	Chocolates	Product5	medium	65
6	P006	Jelly	Product6	Small	20
7	P007	Jelly	Product7	Large	11
8	P008	Jelly	Product8	Large	65
9	P009	Snacks	Product9	Small	91
10	P010	Chocolates	Product10	medium	43
11	P011	Chocolates	Product11	medium	95
12	P012	Drinks	Product12	Large	92
13	P013	Drinks	Product13	Small	72
14	P014	Snacks	Product14	Large	12
15	P015	Drinks	Product15	medium	26
16	P016	Jelly	Product16	Small	94
17	P017	Snacks	Product17	medium	52
18	P009	Snacks	Product9	Small	91
19	P018	Drinks	Product18	Small	9
20	P019	Drinks	Product19	Large	57
21	P020	Snacks	Product20	Large	62
22	P021	Chocolates	Product21	Small	9
23	P022	Jelly	Product22	medium	19
24	P023	Jelly	Product23	medium	27

Query Settings ✕

PROPERTIES

Name
Product

All Properties

APPLIED STEPS

Source ✖

Navigation ✖

Promoted Headers ✖

✕ Rounded Off ✖

To Perform this task:

- Go to the Product table
- Select the Price column > Transform > Rounding > Round > Then select "0" as decimal position
- This will change the price column to nearest integer.

Task 1b- Split the 'Customer' column in the Customer table into two columns: 'FirstName' and 'LastName'.

Queries [3] ✕ ✓ fx = Table.RenameColumns("#Changed Type2",{{"Customer.1", "FirstName"}, {"Customer.2", "LastName"}}) ▼

	A _C CustomerID	A _C FirstName	A _C LastName	A _C Gender	A _C Area	A _C profession
1	C0001	Sujata	Mohanty	Male	middle	Retired
2	C0002	Suraj	Rajput	Male	east	unemployment
3	C0003	Pramod	Bhavsar	Male	east	profession
4	C0004	Satsh	Ojha	Male	west	self-employment
5	C0005	Sintu	Kumar	Male	middle	Retired
6	C0006	Krutika	Shelar	Male	middle	unemployment
7	C0007	Arjun	Shaw	Male	east	profession
8	C0002	Suraj	Rajput	Male	east	unemployment
9	C0008	Shrikant	Badge	Female	west	self-employment
10	C0009	Jitender	Kumar	Male	south	Retired
11	C0010	Dharmendar	Rana	Male	middle	unemployment
12	C0011	Adnan	Soukat	Female	south	profession
13	C0012	Sheetal	Nishad	Male	middle	self-employment
14	C0013	Monika	Pawar	Female	east	Retired
15	C0014	Meena	Mourya	Male	east	unemployment
16	C0015	Ashu	Sharma	Male	west	profession
17	C0016	Harivansh	Gautam	Male	middle	self-employment
18	C0017	Vini	Saini	Female	middle	Retired
19	C0018	Anand Singh	Rajput	Male	east	unemployment
20	C0019	Jaishri	Saxena	Male	west	profession
21	C0020	Virender	Sroha	Male	south	self-employment
22	C0021	Shrikant	Badge	Female	middle	Retired
23	C0004	Satsh	Ojha	Male	west	self-employment
24						

Query Settings ✕

PROPERTIES

Name
Customer

[All Properties](#)

APPLIED STEPS

- Source ✕
- Navigation ✕
- Changed Type
- Promoted Headers ✕
- Changed Type1
- Split Column by Delimiter ✕
- Changed Type2
- ✕ Renamed Columns**

To perform this task:

- First Go to customer table
- Select customer column
- Then under transform > Split Column > By Delimiter(by space) > Choose from Right Occurrence.
- Rename the columns as "FirstName" and "LastName".

Task 2a- Convert all entries in the 'Category' column in the Product table to uppercase

Untitled - Power Query Editor

File Home Transform Add Column View Tools Help

Table: Transpose, Reverse Rows, Group By, Use First Row as Headers, Count Rows

Any Column: Data Type: Text, Detect Data Type, Rename, Replace Values, Fill, Pivot Column, Unpivot Columns, Move, Convert to List

Text Column: Split Column, Format, Merge Columns, Extract, Parse

Number Column: Statistics, Standard, Scientific, Rounding, Information, Trigonometry

Date & Time Column: Date, Time, Duration

Scripts: Run R script, Run Python script

Queries [3]: Customer, Product, Sales

Formula Bar: = Table.TransformColumns(#"Changed Type",{{"Category", Text.Upper, type text}})

ProductID	Category	Name	Size	Price
1 P001	SNACKS	Product1	Small	67
2 P002	DRINKS	Product2	Large	85
3 P003	DRINKS	Product3	medium	35
4 P004	SNACKS	Product4	Small	44
5 P005	CHOCOLATES	Product5	medium	65
6 P006	JELLY	Product6	Small	20
7 P007	JELLY	Product7	Large	11
8 P008	JELLY	Product8	Large	65
9 P009	SNACKS	Product9	Small	91
10 P010	CHOCOLATES	Product10	medium	43
11 P011	CHOCOLATES	Product11	medium	95
12 P012	DRINKS	Product12	Large	92
13 P013	DRINKS	Product13	Small	72
14 P014	SNACKS	Product14	Large	12
15 P015	DRINKS	Product15	medium	26
16 P016	JELLY	Product16	Small	94
17 P017	SNACKS	Product17	medium	52
18 P009	SNACKS	Product9	Small	91
19 P018	DRINKS	Product18	Small	9
20 P019	DRINKS	Product19	Large	57
21 P020	SNACKS	Product20	Large	62
22 P021	CHOCOLATES	Product21	Small	9
23 P022	JELLY	Product22	medium	19
24 P023	JELLY	Product23	medium	27

5 COLUMNS, 32 ROWS Column profiling based on top 1000 rows

Query Settings: Name: Product

PROPERTIES: All Properties

APPLIED STEPS: Source, Navigation, Promoted Headers, Rounded Off, Changed Type, X Uppercased Text

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To Perform this task:

- First select the Product table
- Then select the category column
- Then under Transform > Format > UPPERCASE.

This will change the category to uppercase.

Task 2b- Replace all occurrences of 'unemployment' with 'Unemployed' in the 'Profession' column of the Customer table.

Power Query Editor interface showing the transformation of the 'Profession' column in the 'Customer' table. The formula bar displays the M code: `= Table.ReplaceValue("#Renamed Columns", "unemployment", "Unemployed", Replacer.ReplaceText, {"profession"})`.

The 'Customer' table data is as follows:

	AB_C FirstName	AB_C LastName	AB_C Gender	AB_C Area	AB_C profession
1	Sujata	Mohanty	Male	middle	Retired
2	Suraj	Rajput	Male	east	Unemployed
3	Pramod	Bhavsar	Male	east	profession
4	Satsh	Ojha	Male	west	self-employed
5	Sintu	Kumar	Male	middle	Retired
6	Krutika	Shelar	Male	middle	Unemployed
7	Arjun	Shaw	Male	east	profession
8	Suraj	Rajput	Male	east	Unemployed
9	Shrikant	Badge	Female	west	self-employed
10	Jitender	Kumar	Male	south	Retired
11	Dharmendar	Rana	Male	middle	Unemployed
12	Adnan	Soukat	Female	south	profession
13	Sheetal	Nishad	Male	middle	self-employed
14	Monika	Pawar	Female	east	Retired
15	Meena	Mourya	Male	east	Unemployed
16	Ashu	Sharma	Male	west	profession
17	Harivansh	Gautam	Male	middle	self-employed
18	Vini	Saini	Female	middle	Retired
19	Anand Singh	Rajput	Male	east	Unemployed
20	Jaishri	Saxena	Male	west	profession
21	Virender	Sroha	Male	south	self-employed
22	Shrikant	Badge	Female	middle	Retired
23	Satsh	Ojha	Male	west	self-employed
24					

The 'APPLIED STEPS' pane on the right shows the sequence of steps: Source, Navigation, Changed Type, Promoted Headers, Changed Type1, Split Column by Delimiter, Changed Type2, Renamed Columns, and Replaced Value.

To perform this task:

- First go to customer table
- Select profession column
- Then select Transform > Replace Values
- Then in dialog box there will be two section Find and Replace with
- Find – unemployment, Replace with – Unemployed

Task 3a-Ensure all columns in the datasets have appropriate data types, e.g., 'Date' column as Date type, 'Price' as Decimal type.

The screenshot shows the Microsoft Power Query Editor interface. The main area displays a table with 5 columns and 35 rows. The columns are SalesID, Date, CustomerID, ProductID, and Quantity. The Date column is highlighted, and the 'Date' data type is selected from the dropdown menu. The right sidebar shows the 'Query Settings' pane with 'Changed Type' under 'APPLIED STEPS'.

	SalesID	Date	CustomerID	ProductID	Quantity
1	S0001	29-01-2017	C0010	P005	7
2	S0002	31-01-2017	C0003	P010	10
3	S0003	05-01-2017	C0032	P011	7
4	S0004	30-01-2017	C0022	P021	7
5	S0005	16-01-2017	C0001	P026	5
6	S0006	15-01-2017	C0030	P027	9
7	S0007	11-01-2017	C0008	P002	10
8	S0008	16-01-2017	C0031	P003	1
9	S0009	16-01-2017	C0011	P012	4
10	S0010	05-01-2017	C0024	P013	2
11	S0011	26-01-2017	C0015	P015	5
12	S0012	12-01-2017	C0018	P018	7
13	S0013	26-01-2017	C0020	P019	3
14	S0014	16-01-2017	C0016	P028	1
15	S0015	28-01-2017	C0005	P029	8
16	S0016	04-01-2017	C0027	P006	8
17	S0017	07-01-2017	C0023	P007	8
18	S0018	07-01-2017	C0025	P008	10
19	S0019	17-01-2017	C0028	P016	10
20	S0020	06-01-2017	C0004	P022	10
21	S0021	30-01-2017	C0007	P023	8
22	S0022	15-01-2017	C0026	P024	9
23	S0023	22-01-2017	C0017	P001	8
24	S0024	06-01-2017	C0012	P004	4

To perform this task:

- First go to sales column
- Then select date column
- Then left of column name is the data type icon
- Select date type from that icon
- It will change date type to date.

Task 3b-Identify and replace any inconsistent values in the 'Size' column of the Product dataset to ensure uniformity (e.g., replace "medium" with "Medium").

Untitled - Power Query Editor

File Home Transform Add Column View Tools Help

Close & Apply New Source Recent Sources Enter Data Data source settings Manage Parameters Refresh Preview Advanced Editor Choose Columns Remove Columns Keep Rows Remove Rows Split Column Group By Data Type: Text Use First Row as Headers Replace Values Merge Queries Append Queries Combine Files Text Analytics Vision Azure Machine Learning

Queries [3] Customer Product Sales

Table.ReplaceValue("#Uppercased Text", "medium", "Medium", Replacer.ReplaceText, {"Size"})

ProductID	Category	Name	Size	Price
1 P001	SNACKS	Product1	Small	67
2 P002	DRINKS	Product2	Large	85
3 P003	DRINKS	Product3	Medium	35
4 P004	SNACKS	Product4	Small	44
5 P005	CHOCOLATES	Product5	Medium	65
6 P006	JELLY	Product6	Small	20
7 P007	JELLY	Product7	Large	11
8 P008	JELLY	Product8	Large	65
9 P009	SNACKS	Product9	Small	91
10 P010	CHOCOLATES	Product10	Medium	43
11 P011	CHOCOLATES	Product11	Medium	95
12 P012	DRINKS	Product12	Large	92
13 P013	DRINKS	Product13	Small	72
14 P014	SNACKS	Product14	Large	12
15 P015	DRINKS	Product15	Medium	26
16 P016	JELLY	Product16	Small	94
17 P017	SNACKS	Product17	Medium	52
18 P009	SNACKS	Product9	Small	91
19 P018	DRINKS	Product18	Small	9
20 P019	DRINKS	Product19	Large	57
21 P020	SNACKS	Product20	Large	62
22 P021	CHOCOLATES	Product21	Small	9
23 P022	JELLY	Product22	Medium	19
24 P023	JELLY	Product23	Medium	27

5 COLUMNS, 32 ROWS Column profiling based on top 1000 rows

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Query Settings

PROPERTIES

Name

Product

APPLIED STEPS

Source

Navigation

Promoted Headers

Rounded Off

Changed Type

Uppercased Text

Replaced Value

To Perform this task:

- Go to the product table
- Select size column
- Then Transform > Replace Values
- Then in find-"medium" and in replace – "Medium"

Task 4a-Create relationships between the tables using 'CustomerID' and 'ProductID' as keys

The screenshot displays the Power BI Desktop interface. The main workspace shows a data model with three tables: Product, Sales, and Customer. The Product table has fields: Category, Name, Price, ProductID, and Size. The Sales table has fields: CustomerID, Date, ProductID, Quantity, and SalesID. The Customer table has fields: Area, CustomerID, FirstName, Gender, LastName, and profession. Relationships are established between ProductID in the Product table and ProductID in the Sales table, and between CustomerID in the Sales table and CustomerID in the Customer table. Both relationships are one-to-many (1 to *). The right-hand pane shows the 'Data' view with the 'Model' tab selected, displaying the semantic model structure. The 'Relationships' section shows two relationships: Sales[CustomerID] <— Customer[C... and Sales[ProductID] <— Product[Prod... The bottom status bar shows the date 27-05-2025 and time 13:14.

To Perform this task:

- First load the data to Power BI model view
- Then drag CustomerID from customer table to CustomerID to sales table
- Then drag ProductID from product table to ProductID to sales table
- And then make connection that is one to many and then click save.

Task 4b- Clean the data by removing any duplicate entries in the Customer and Product tables.

Power Query Editor - Customer Table

CustomerID	FirstName	LastName	Gender	Area	profession	
1	C0001	Sujata	Mohanty	Male	middle	Retired
2	C0002	Suraj	Rajput	Male	east	Unemployed
3	C0003	Pramod	Bhavsar	Male	east	profession
4	C0004	Satsh	Ojha	Male	west	self-employee
5	C0005	Sintu	Kumar	Male	middle	Retired
6	C0006	Krutika	Shelar	Male	middle	Unemployed
7	C0007	Arjun	Shaw	Male	east	profession
8	C0008	Shrikant	Badge	Female	west	self-employee
9	C0009	Jitender	Kumar	Male	south	Retired
10	C0010	Dharmendar	Rana	Male	middle	Unemployed
11	C0011	Adnan	Soukat	Female	south	profession
12	C0012	Sheetal	Nishad	Male	middle	self-employee
13	C0013	Monika	Pawar	Female	east	Retired
14	C0014	Meena	Mourya	Male	east	Unemployed
15	C0015	Ashu	Sharma	Male	west	profession
16	C0016	Hariyansh	Gautam	Male	middle	self-employee
17	C0017	Vini	Salni	Female	middle	Retired
18	C0018	Anand Singh	Rajput	Male	east	Unemployed
19	C0019	Jalshri	Saxena	Male	west	profession
20	C0020	Virender	Sroha	Male	south	self-employee
21	C0021	Shrikant	Badge	Female	middle	Retired
22	C0022	Hariyansh	Gautam	Male	south	Unemployed
23	C0023	Sourav	Maity	Male	middle	profession
24	C0024	Sourav	Maity	Male	middle	profession

6 COLUMNS, 32 ROWS Column profiling based on top 1000 rows

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Power Query Editor - Product Table

ProductID	Category	Name	Size	Price	
1	P001	SNACKS	Product1	Small	67
2	P002	DRINKS	Product2	Large	85
3	P003	DRINKS	Product3	Medium	35
4	P004	SNACKS	Product4	Small	44
5	P005	CHOCOLATES	Product5	Medium	65
6	P006	JELLY	Product6	Small	20
7	P007	JELLY	Product7	Large	11
8	P008	JELLY	Product8	Large	65
9	P009	SNACKS	Product9	Small	91
10	P010	CHOCOLATES	Product10	Medium	43
11	P011	CHOCOLATES	Product11	Medium	95
12	P012	DRINKS	Product12	Large	92
13	P013	DRINKS	Product13	Small	72
14	P014	SNACKS	Product14	Large	12
15	P015	DRINKS	Product15	Medium	26
16	P016	JELLY	Product16	Small	94
17	P017	SNACKS	Product17	Medium	52
18	P018	DRINKS	Product18	Small	9
19	P019	DRINKS	Product19	Large	57
20	P020	SNACKS	Product20	Large	62
21	P021	CHOCOLATES	Product21	Small	9
22	P022	JELLY	Product22	Medium	19
23	P023	JELLY	Product23	Medium	27
24	P024	JELLY	Product24	Large	51

5 COLUMNS, 30 ROWS Column profiling based on top 1000 rows

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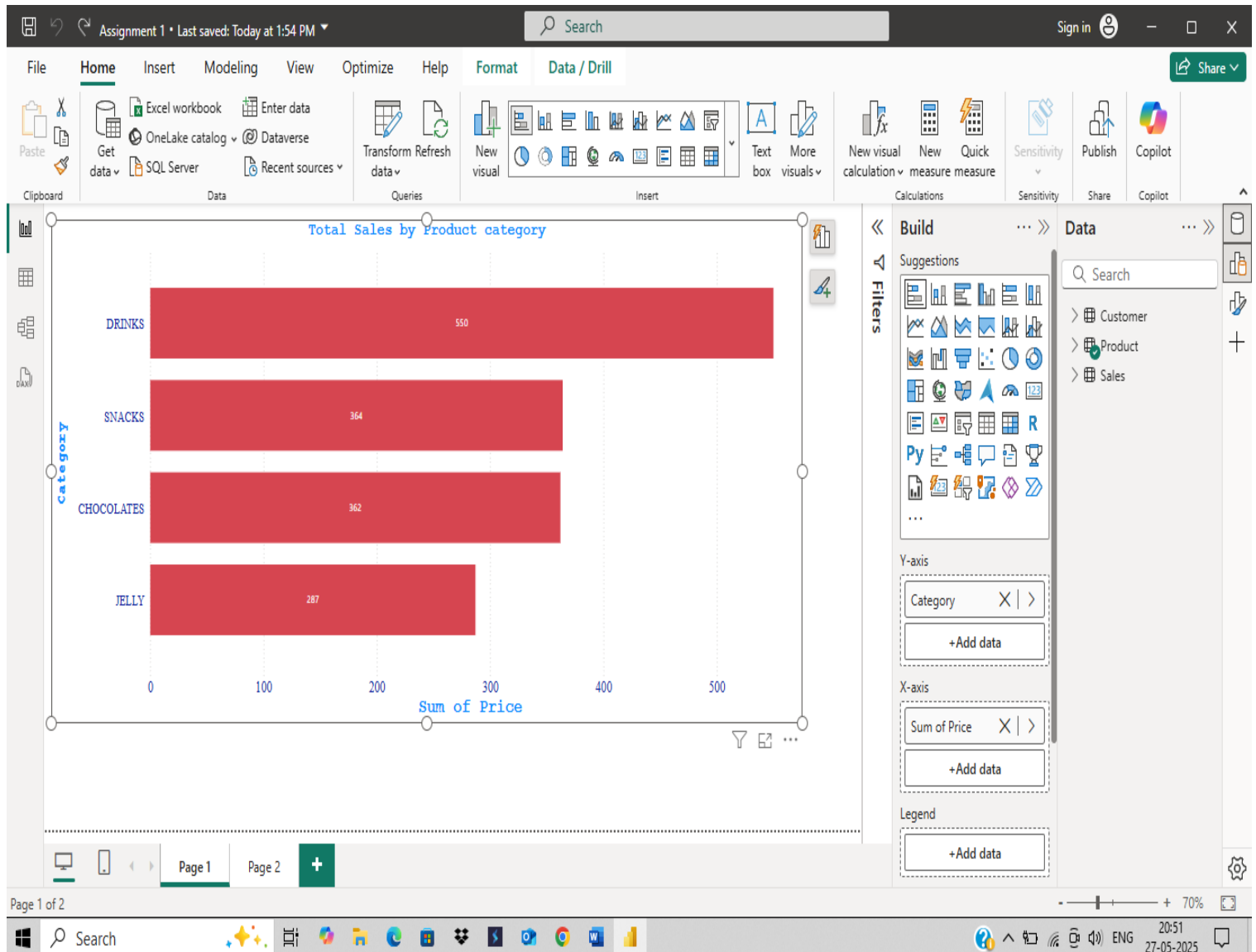
To perform this task:

- Open Power Query Editor
- Then select customer table > Select all columns > Remove Rows > Remove Duplicates
- Then select product table > Select all columns > Remove Rows > Remove Duplicates

Task 5a- Sales by Category:

Create a chart showing total sales (TotalPrice) by product category.

Customize colors, refine the title, and add data labels for exact sales amounts.



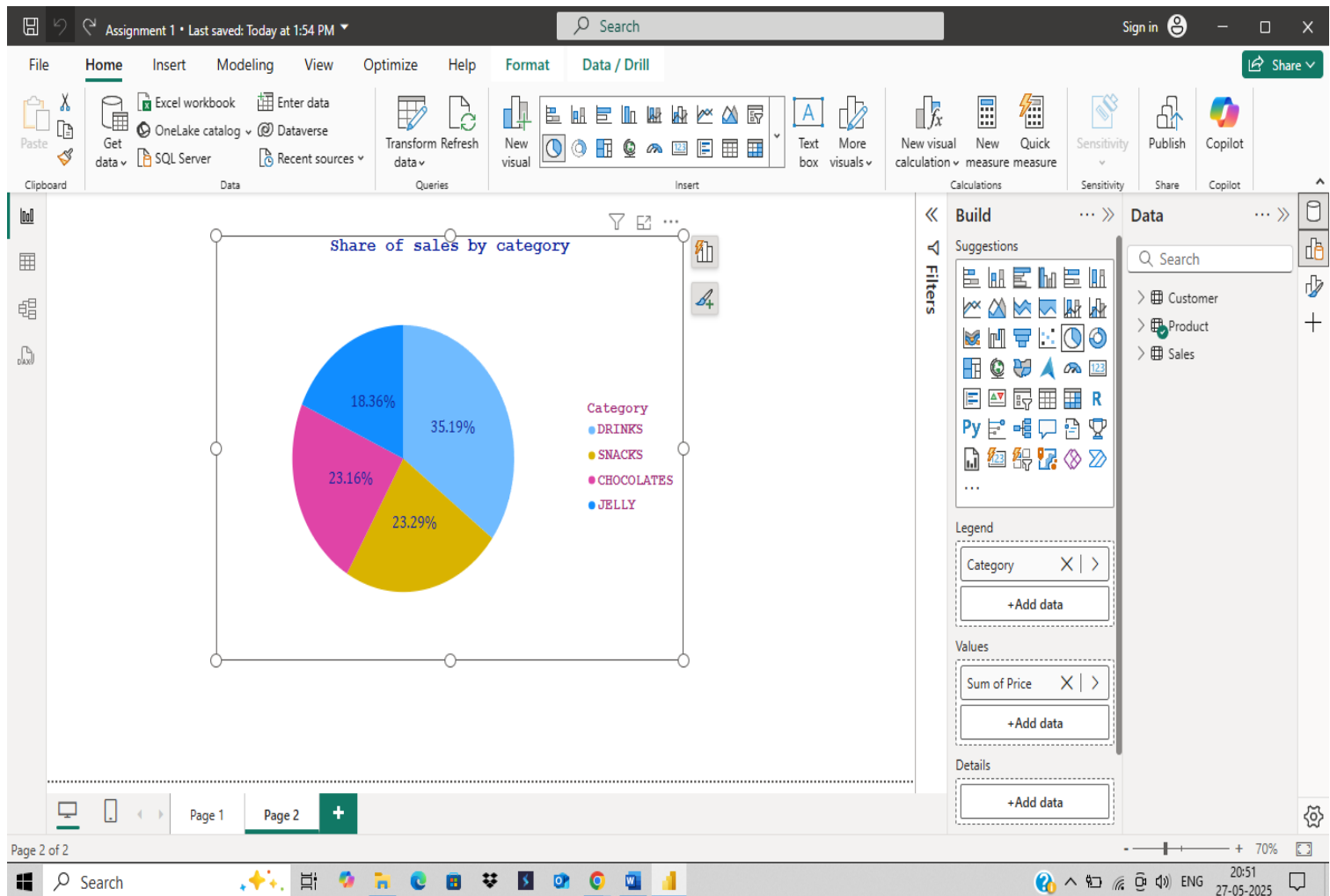
To Perform this task:

- First Load the data
- Then select a visual- Stacked Bar Chart
- In Y-axis put category column
- In X-axis put price column as sum of price
- Then customize the visual by changing the title
- Add data labels and customize to center
- Change the colours etc.

Task 5b-Sales Percentage by Category:

Create a chart showing the percentage share of sales (Price) for each product category.

Keep the chart compact and easy to understand.



To perform this task:

- Select a perfect visual which is Pie chart
- In fields, Legend – Category column
- In values- Price and change it to sum of price
- Add percentage data labels
- Change the title "share of sales by category"