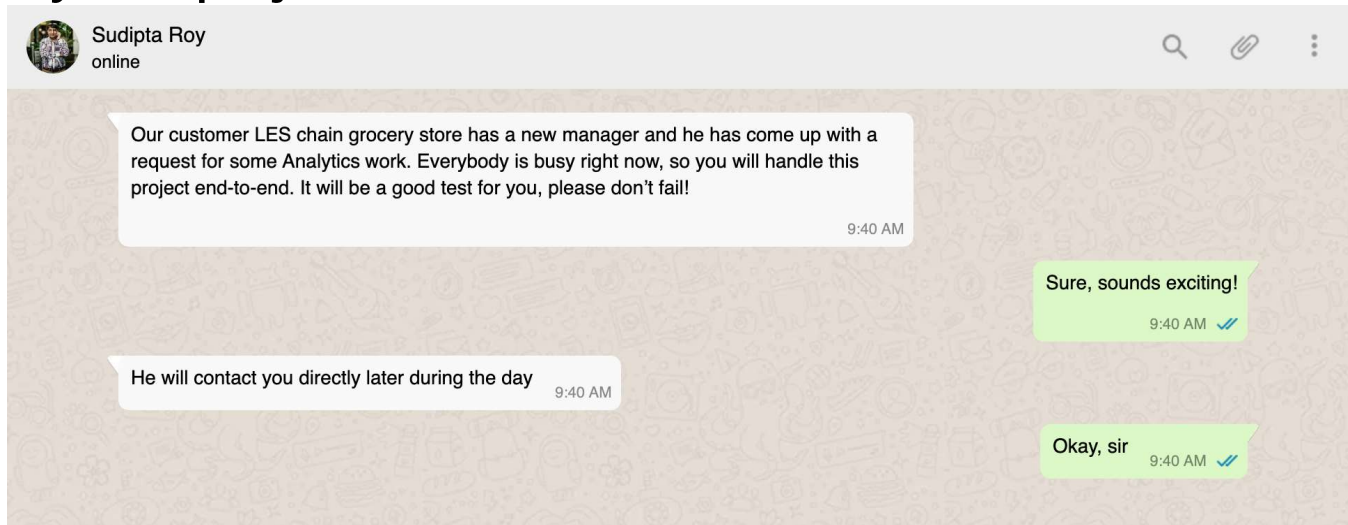




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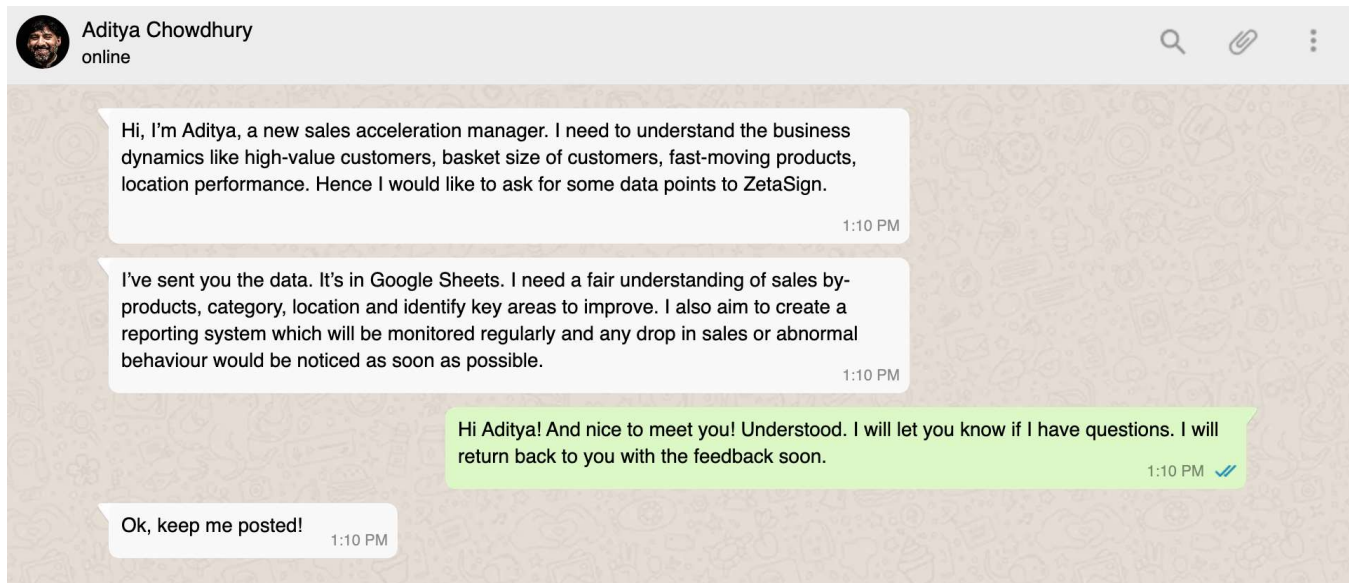
## My first project



Ok, you need to get more information on this store chain.

LES is a retail store brand, it is the fourth largest supermarket chain in the country after Future Group, Reliance Retail and D-Mart.

It was founded in 2005 and unites 480 supermarkets and 25 hypermarkets. It also provides online grocery retail services in Bangalore, NCR, Hyderabad and Pune through its e-Commerce website.







It's time to message our old friend Abhishek 🤔



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## What needs to be done

**Abhishek**  
online



Hi, I'm sorry I'm away visiting a client in Pune. 1:15 PM

I ran through the task - it seems OK. You definitely know everything there is to know technically. Let me help you with formulating the task. 1:15 PM

Ok! 1:15 PM ✓

If we throw away all the fancy words, what he needs is several reports that will help him understand his sales. 1:15 PM

This I understand! 1:15 PM ✓

In every report, we will define KPIs that will help the client understand the situation and make business decisions 1:15 PM


What are KPIs? 1:15 PM ✓


Key Performance Indicators (or KPIs) provide a way to measure how well companies, business units, projects, or individuals perform concerning their strategic goals and objectives. The figures help you keep track of your progress or get a good understanding of the situation! 1:15 PM

Got it! 1:15 PM ✓

I will send you 4 reports to approve with the client. Get back to me once you got the approval! 1:15 PM

Cool👍Thank you!! 1:15 PM ✓







Aditya Chowdhury  
online



Hi Aditya! I suggest creating 4 reports that will cover your KPIs - you will be monitoring them weekly. Please approve before I can start the work.

12:40 PM ✓

- 1) Customers with top transactions
- 2) Product sales from 8th till 15th December
- 3) ARPU by city and by state
- 4) Sales by category with city level breakup

12:40 PM ✓

Great job! I approve the reports. Please proceed!

12:40 PM



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# Reports

We need to create a report to analyse and keep track of Key Performance Indicators.

## Data to download for Project 1

All the amounts are blurred, you have to calculate it yourself!

### Report 1 : Customers with top transactions

Transaction_id	Customer_id	Sales
1	1	100
2	2	200
3	3	300
4	4	400
5	5	500
6	6	600
7	7	700
8	8	800
9	9	900
10	10	1000
11	11	1100
12	12	1200
13	13	1300
14	14	1400
15	15	1500
16	16	1600
17	17	1700
18	18	1800
19	19	1900
20	20	2000

### Report 2 : Product sales for a period

Product_id	Product descr	Sales
1	Product 1	100
2	Product 2	200
3	Product 3	300
4	Product 4	400
5	Product 5	500
6	Product 6	600
7	Product 7	700
8	Product 8	800
9	Product 9	900
10	Product 10	1000
11	Product 11	1100
12	Product 12	1200
13	Product 13	1300
14	Product 14	1400
15	Product 15	1500
16	Product 16	1600
17	Product 17	1700
18	Product 18	1800
19	Product 19	1900
20	Product 20	2000
21	Product 21	2100
22	Product 22	2200
23	Product 23	2300
24	Product 24	2400
25	Product 25	2500
26	Product 26	2600
27	Product 27	2700
28	Product 28	2800
29	Product 29	2900
30	Product 30	3000
31	Product 31	3100
32	Product 32	3200
33	Product 33	3300
34	Product 34	3400
35	Product 35	3500
36	Product 36	3600
37	Product 37	3700
38	Product 38	3800
39	Product 39	3900
40	Product 40	4000
41	Product 41	4100
42	Product 42	4200
43	Product 43	4300
44	Product 44	4400
45	Product 45	4500
46	Product 46	4600
47	Product 47	4700
48	Product 48	4800
49	Product 49	4900
50	Product 50	5000

### Report 3 : ARPU for city and state

City	Sales	Users	ARPU
[Heatmap]	[Heatmap]	[Heatmap]	[Heatmap]
[Heatmap]	[Heatmap]	[Heatmap]	[Heatmap]
[Heatmap]	[Heatmap]	[Heatmap]	[Heatmap]
[Heatmap]	[Heatmap]	[Heatmap]	[Heatmap]
[Heatmap]	[Heatmap]	[Heatmap]	[Heatmap]

State	Sales	Users	ARPU
[Heatmap]	[Heatmap]	[Heatmap]	[Heatmap]
[Heatmap]	[Heatmap]	[Heatmap]	[Heatmap]
[Heatmap]	[Heatmap]	[Heatmap]	[Heatmap]

### Report 4 : Sales by category with city level breakup

<https://lms.codinginvaders.com/courses/course-v1:CodingInvaders+DATEST+1/courseware/7d9f8e2d4d5644878f333b44fe884868/21c86c8ede5b4e4...> 3/3



Course > Project... > Assign... > Task 1

## Task 1

Transaction_id	Customer_id	Sales
1	1	1
2	1	1
3	1	1
4	1	1
5	1	1
6	1	1
7	1	1
8	1	1
9	1	1
10	1	1
11	1	1
12	1	1
13	1	1
14	1	1
15	1	1
16	1	1
17	1	1
18	1	1
19	1	1
20	1	1
21	1	1
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154	1	1
155	1	1
156	1	1
157	1	1
158	1	1
159	1	1
160	1	1
161	1	1
162	1	1
163	1	1
164	1	1
165	1	1
166	1	1
167	1	1

## Question 1

1/1 point (graded)

As a new sales manager is primarily interested in sales. Let's calculate the sales for each transaction.

Create a new column next to "Price (INR)" and calculate sales for each transaction ID.

Sales=quantity\*price

Enter the sales value for transaction ID "31245032" of product ID "10000338"





As of now, In a spreadsheet, we have calculated the sales amount for each individual product (highlighted in yellow).

For example, if the customer has bought the following things.

Item	Quantity	Price per item	Total Amount
Cornflakes(almond) cereal of 1Kg	2	192	384
Orange (200 mL)	4	160	640
Cheese (200g)	3	100	300
Total Value			1324

What we need is the total amount of the bill i.e amount highlighted in red

Compute sales amount for each customer\_id-transaction\_id combination. In the output, customer and transaction fields should be unique together.

To calculate the total value for each bill (transaction ID) we need to do the following steps,

- **Step 1:**

Copy “customer\_id”, “transaction\_id” from the **sales\_fact** worksheet. Create a new worksheet and paste and remove duplicates.

How to remove duplicate values in Google Spreadsheet?

<YouTube Video>

- **Step 2:**

Use the \_\_\_\_\_ formula in GS to compute the sum of sales for each transaction

- **Step 3:**

Sort the report by the sales amount of the transaction

## Question 2

1/1 point (graded)

What is the customer\_id for the highest sales?

☐ 712345380

☒ 712345388

☐ 712345398

☐ 712345345



Submit



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## Task 2

The store had a festival offer from 8th to 15th December. The sales manager would like to understand the sales from the same period.

Product_id	Product descr	Sales
1	Product 1	10
2	Product 2	20
3	Product 3	30
4	Product 4	40
5	Product 5	50
6	Product 6	60
7	Product 7	70
8	Product 8	80
9	Product 9	90
10	Product 10	100
11	Product 11	110
12	Product 12	120
13	Product 13	130
14	Product 14	140
15	Product 15	150
16	Product 16	160
17	Product 17	170
18	Product 18	180
19	Product 19	190
20	Product 20	200

Compute sales amount by each product with product description for the period 8th to 15th December.

### Step 1:

Copy “product\_ids” from “sales\_fact”, paste in the new sheet and remove duplicates.

### Step 2:

As we have to work with data for a specific period i.e 8th to 15th December. Filter and copy the data and put it in the sheet to avoid reading the whole data.

**Step 3:**

Use the \_\_\_\_\_ formula in GS to compute the sum of sales for each product\_id.

\* Don't forget to make references absolute before dragging the formula.

**Step 4:**

It seems difficult to comprehend data just with Product ID.

**Step 5:**

Use VLOOKUP to get the “product description” from the “Category\_dim” table for the product\_id.

Use named\_range to avoid “N/A” issues.

## Questions

2/2 points (graded)

1. What is the product description of the product with the highest sales?

☐ Pepsi\_1L

☒ Cornflakes\_1Kg

☐ Curd MD\_1L

☐ Soda\_200mL



2. What is the sales amount of the product with the highest sales?

5372



5372

Submit



Course > Project... > Assign... > Task 3

## Task 3

## Create a Report. ARPU for the state.

State	Sales	Users	ARPU

The acronym ARPU stands for Average Revenue Per User. ARPU is a common metric that's useful for all types of businesses. ARPU is calculated by dividing total revenue by the number of customers you have. ARPU helps companies analyze their growth patterns and compare their success to competitors. Average Revenue per user by state.

Breaking the question, Average Revenue Per User for state = Total revenue by the state/ Total number of customers in the state

### Step 1:

What we have in the “Sales\_fact” table is store ID but we need values on state level. From “Geography\_dim” table we see that each store in respective city and state has unique ID.

Create a new column in “Sales fact” and map the state named from store ID using VLOOKUP.

### Step 2:

Now, let's find out total sales for each state.

Create a new worksheet "State analytics" - copy state from "Geography dim".

**Step 3:**

Using \_\_\_\_\_ formula calculate total sales for each state

**Step 4:**

Because we have multiple duplicate records(ID) for each product. To find total number of unique customer in each state we need to remove duplicates.

Create a new tab "User-per-state". Copy from "Sales\_fact" customer\_id, and state columns to this tab. Remove duplicates.

**Step 5:**

In the "State\_analytics" tab calculate the number of users per state using COUNTIF (from the "User-per-state" tab)

**Step 6:**

For every state calculate ARPU (by dividing total sales by the number of users)

---

## Question 1

1/1 point (graded)

What is the average revenue per customer for Maharashtra?

