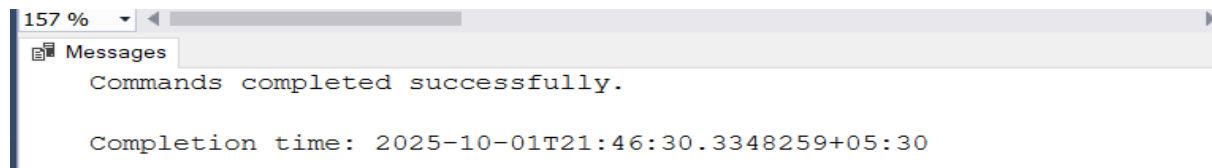


WALMART SQL PROJECT

```
--create walmart database  
create database walmart;
```

```
use walmart;
```

```
--create table walmart_sales  
create table walmart_sales(  
Invoice_ID VARCHAR(100),  
Branch VARCHAR(100),  
City VARCHAR(100),  
Customer_type VARCHAR(100),  
Gender VARCHAR(100),  
Product_line VARCHAR(100),  
Unit_price float,  
Quantity int,  
VAT float,  
Total float,  
[Date] varchar(max),  
[Time] varchar(100),  
Payment nvarchar(max),  
cogs float,gross_margin_percentage float,  
gross_income float,  
Rating float);
```



```
select * from walmart_sales;
```

Invoice_ID	Branch	City	Customer_type	Gender	Product_line	Unit_price	Quantity	VAT	Total	Date	Time	Payment	cogs	gross_margin_percentage	gross_income	Rating
(Click to select the whole column)																

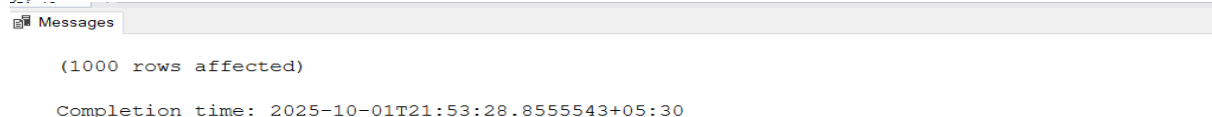
```
--read the Walmart Dataset
```

```
BULK INSERT walmart_sales
```

```
FROM 'C:\Users\Saurabh\Desktop\SQL Project\Walmart Sales Data.csv'
```

```
WITH
```

```
(  
    FIELDTERMINATOR = ',', -- Specifies the character that separates fields  
    ROWTERMINATOR = '\n', -- Specifies the character that marks the end of a row  
    FIRSTROW = 2, -- Specifies the first row to import (e.g., skip header)  
    DATAFILETYPE = 'char' -- Specifies the type of data stored in the data file  
);
```



```
select * from walmart_sales;
```

Results Messages																	
	Invoice_id	Branch	City	Customer_type	Gender	Product_line	Unit_price	Quantity	VAT	Total	Date	Time	Payment	cogs	gross_margin_percentage	gross_income	Rating
1	750-67-8428	A	Yangon	Member	Female	Electronic accessories	74.69	7	26.1415	548.9715	05-01-2019	13:08:00	Ewallet	522.83	4.761904762	26.1415	9.1
2	226-31-3081	C	Naypyitaw	Normal		Female	Electronic accessories	15.28	5	3.82	80.22	08-03-2019	10:29:00	Cash	76.4	4.761904762	3.82
3	631-41-3108	A	Yangon	Normal	Male	Home and lifestyle	46.33	7	16.2155	340.5255	03-03-2019	13:23:00	Credit card	324.31	4.761904762	16.2155	7.4
4	123-19-1176	A	Yangon	Member	Male	Health and beauty	58.22	8	23.288	489.048	27-01-2019	20:33:00	Ewallet	465.76	4.761904762	23.288	8.4
5	373-73-7910	A	Yangon	Normal	Male	Sports and travel	86.31	7	30.2085	634.3785	08-02-2019	10:37:00	Ewallet	604.17	4.761904762	30.2085	5.3
6	699-14-3026	C	Naypyitaw	Normal	Male	Electronic accessories	85.39	7	29.8865	627.6165	25-03-2019	18:30:00	Ewallet	597.73	4.761904762	29.8865	4.1
7	355-53-5943	A	Yangon	Member	Female	Electronic accessories	68.84	6	20.652	433.692	25-02-2019	14:36:00	Ewallet	413.04	4.761904762	20.652	5.8
8	315-22-5665	C	Naypyitaw	Normal	Female	Home and lifestyle	73.56	10	36.78	772.38	24-02-2019	11:38:00	Ewallet	735.6	4.761904762	36.78	8
9	665-32-9167	A	Yangon	Member	Female	Health and beauty	36.26	2	3.626	76.146	10-01-2019	17:15:00	Credit card	72.52	4.761904762	3.626	7.2
10	692-92-5582	B	Mandalay	Member	Female	Food and beverages	54.84	3	8.226	172.746	20-02-2019	13:27:00	Credit card	164.52	4.761904762	8.226	5.9
11	351-62-0822	B	Mandalay	Member	Female	Fashion accessories	14.48	4	2.896	60.816	06-02-2019	18:07:00	Ewallet	57.92	4.761904762	2.896	4.5
12	529-56-3974	B	Mandalay	Member	Male	Electronic accessories	25.51	4	5.102	107.142	09-03-2019	17:03:00	Cash	102.04	4.761904762	5.102	6.8
13	365-64-0515	A	Yangon	Normal	Female	Electronic accessories	46.95	5	11.7375	246.4875	12-02-2019	10:25:00	Ewallet	234.75	4.761904762	11.7375	7.1
14	252-56-2699	A	Yangon	Normal	Male	Food and beverages	43.19	10	21.595	453.495	07-02-2019	16:48:00	Ewallet	431.9	4.761904762	21.595	8.2
15	829-34-3910	A	Yangon	Normal	Female	Health and beauty	71.38	10	35.69	749.49	29-03-2019	19:21:00	Cash	713.8	4.761904762	35.69	5.7
16	299-46-1805	B	Mandalay	Member	Female	Sports and travel	93.72	6	28.116	590.436	15-01-2019	16:19:00	Cash	562.32	4.761904762	28.116	4.5
17	656-95-9349	A	Yangon	Member	Female	Health and beauty	68.93	7	24.1255	506.6355	11-03-2019	11:03:00	Credit card	482.51	4.761904762	24.1255	4.6

```
--add column time_of_day , day_name , month_name
alter table walmart_sales
add time_of_day varchar(100),
    day_name varchar(100),
    month_name varchar(100);
```

```
select * from walmart_sales;
```

Messages																				
Invoice_ID	Branch	City	Customer_type	Gender	Product_line	Unit_price	Quantity	VAT	Total	Date	Time	Payment	cogs	gross_margin_percentage	gross_income	Rating	time_of_day	day_name	month_name	
1	750-67-8428	A	Yangon	Member	Female	Health and beauty	74.69	7	26.1415	548.9715	05-01-2019	13:08:00	Ewallet	522.83	4.761904762	26.1415	9.1	NULL	NULL	NULL
2	226-31-3081	C	Naypyitaw	Normal	Female	Electronic accessories	15.28	5	3.82	80.22	08-03-2019	10:29:00	Cash	76.4	4.761904762	3.82	9.6	NULL	NULL	NULL
3	631-41-3108	A	Yangon	Normal	Male	Home and lifestyle	46.33	7	16.2155	340.5255	03-03-2019	13:23:00	Credit card	324.31	4.761904762	16.2155	7.4	NULL	NULL	NULL
4	123-19-1176	A	Yangon	Member	Male	Health and beauty	58.22	8	23.288	489.048	27-01-2019	20:33:00	Ewallet	465.76	4.761904762	23.288	8.4	NULL	NULL	NULL
5	373-73-7910	A	Yangon	Normal	Male	Sports and travel	86.31	7	30.2085	634.3785	08-02-2019	10:37:00	Ewallet	604.17	4.761904762	30.2085	5.3	NULL	NULL	NULL
6	699-14-3026	C	Naypyitaw	Normal	Male	Electronic accessories	85.39	7	29.8865	627.6165	25-03-2019	18:30:00	Ewallet	597.73	4.761904762	29.8865	4.1	NULL	NULL	NULL
7	355-53-5943	A	Yangon	Member	Female	Electronic accessories	68.84	6	20.652	433.692	25-02-2019	14:36:00	Ewallet	413.04	4.761904762	20.652	5.8	NULL	NULL	NULL
8	315-22-5665	C	Naypyitaw	Normal	Female	Home and lifestyle	73.56	10	36.78	772.38	24-02-2019	11:38:00	Ewallet	735.6	4.761904762	36.78	8	NULL	NULL	NULL
9	665-32-9167	A	Yangon	Member	Female	Health and beauty	36.26	2	3.626	76.146	10-01-2019	17:15:00	Credit card	72.52	4.761904762	3.626	7.2	NULL	NULL	NULL
10	692-92-5582	B	Mandalay	Member	Female	Food and beverages	54.84	3	8.226	172.746	20-02-2019	13:27:00	Credit card	164.52	4.761904762	8.226	5.9	NULL	NULL	NULL
11	351-62-0822	B	Mandalay	Member	Female	Fashion accessories	14.48	4	2.896	60.816	06-02-2019	18:07:00	Ewallet	57.92	4.761904762	2.896	4.5	NULL	NULL	NULL
12	529-56-3974	B	Mandalay	Member	Male	Electronic accessories	25.51	4	5.102	107.142	09-03-2019	17:03:00	Cash	102.04	4.761904762	5.102	6.8	NULL	NULL	NULL
13	365-64-0515	A	Yangon	Normal	Female	Electronic accessories	46.95	5	11.7375	246.4875	12-02-2019	10:25:00	Ewallet	234.75	4.761904762	11.7375	7.1	NULL	NULL	NULL
14	252-56-2699	A	Yangon	Normal	Male	Food and beverages	43.19	10	21.595	453.495	07-02-2019	16:48:00	Ewallet	431.9	4.761904762	21.595	8.2	NULL	NULL	NULL
15	829-34-3910	A	Yangon	Normal	Female	Health and beauty	71.38	10	35.69	749.49	29-03-2019	19:21:00	Cash	713.8	4.761904762	35.69	5.7	NULL	NULL	NULL
16	299-46-1805	B	Mandalay	Member	Female	Sports and travel	93.72	6	28.116	590.436	15-01-2019	16:19:00	Cash	562.32	4.761904762	28.116	4.5	NULL	NULL	NULL
17	656-95-9349	A	Yangon	Member	Female	Health and beauty	68.93	7	24.1255	506.6355	11-03-2019	11:03:00	Credit card	482.51	4.761904762	24.1255	4.6	NULL	NULL	NULL

Query executed successfully.

DESKTOP-SV2DUBV\MSSQLSERVER... DESKTOP-SV2DUBV\Saurab... walmart 00:00:00 1,000 rows

```
--update the values into time_of_day
```

```
update walmart_sales
set time_of_day = (case
    when [time] between '00:00:00' and '12:00:00' then 'Morning'
    when [time] between '12:01:00' and '16:00:00' then 'Afternoon'
    else 'Evening'
end)
from walmart_sales;
```

```
--update day_name
update walmart_sales
set day_name = (datename(WEEKDAY,try_cast([Date] as date)))
from walmart_sales;
```

```
--update month name
update walmart_sales
set month_name = (datename(mm,try_cast([Date] as date)))
from walmart_sales;
```

157 %

Messages

(1000 rows affected)

(1000 rows affected)

(1000 rows affected)

Completion time: 2025-10-01T21:55:56.0118129+05:30

```
select * from walmart_sales;
```

	Invoice_ID	Branch	City	Customer_type	Gender	Product_line	Unit_price	Quantity	VAT	Total	Date	Time	Payment	cogs	gross_margin_percentage	gross_income	Rating	time_of_day	day_name	month_name
1	750-67-8428	A	Yangon	Member	Female	Health and beauty	74.69	7	26.1415	548.9715	2019-01-05	13:08:00	Ewallet	522.83	4.761904762	26.1415	9.1	Afternoon	Saturday	January
2	226-31-3081	C	Naypyitaw	Normal	Female	Electronic accessories	15.28	5	3.82	80.22	2019-03-08	10:29:00	Cash	76.4	4.761904762	3.82	9.6	Morning	Friday	March
3	631-41-1108	A	Yangon	Normal	Male	Home and lifestyle	46.33	7	16.2155	340.5255	2019-03-03	13:23:00	Credit card	324.31	4.761904762	16.2155	7.4	Afternoon	Sunday	March
4	123-19-1176	A	Yangon	Member	Male	Health and beauty	58.22	8	23.288	489.048	2019-01-27	20:33:00	Ewallet	465.76	4.761904762	23.288	8.4	Evening	Sunday	January
5	373-73-7910	A	Yangon	Normal	Male	Sports and travel	86.31	7	30.2085	634.3785	2019-02-08	10:37:00	Ewallet	604.17	4.761904762	30.2085	5.3	Morning	Friday	February
6	699-14-3026	C	Naypyitaw	Normal	Male	Electronic accessories	85.39	7	29.8865	627.6165	2019-03-25	18:30:00	Ewallet	597.73	4.761904762	29.8865	4.1	Evening	Monday	March
7	355-53-5943	A	Yangon	Member	Female	Electronic accessories	68.84	6	20.652	433.692	2019-02-25	14:36:00	Ewallet	413.04	4.761904762	20.652	5.8	Afternoon	Monday	February
8	315-22-5665	C	Naypyitaw	Normal	Female	Home and lifestyle	73.56	10	36.78	772.38	2019-02-24	11:38:00	Ewallet	735.6	4.761904762	36.78	8	Morning	Sunday	February
9	665-32-9167	A	Yangon	Member	Female	Health and beauty	36.26	2	3.626	76.146	2019-01-10	17:15:00	Credit card	72.52	4.761904762	3.626	7.2	Evening	Thursday	January
10	692-92-5582	B	Mandalay	Member	Female	Food and beverages	54.84	3	8.226	172.746	2019-02-20	13:27:00	Credit card	164.52	4.761904762	8.226	5.9	Afternoon	Wednesday	February
11	351-62-0822	B	Mandalay	Member	Female	Fashion accessories	14.48	4	2.896	60.816	2019-02-06	18:07:00	Ewallet	57.92	4.761904762	2.896	4.5	Evening	Wednesday	February
12	529-56-3974	B	Mandalay	Member	Male	Electronic accessories	25.51	4	5.102	107.142	2019-03-09	17:03:00	Cash	102.04	4.761904762	5.102	6.8	Evening	Saturday	March
13	365-64-0515	A	Yangon	Normal	Female	Electronic accessories	46.95	5	11.7375	246.4875	2019-02-12	10:25:00	Ewallet	234.75	4.761904762	11.7375	7.1	Morning	Tuesday	February
14	252-56-2699	A	Yangon	Normal	Male	Food and beverages	43.19	10	21.595	453.495	2019-02-07	16:48:00	Ewallet	431.9	4.761904762	21.595	8.2	Evening	Thursday	February
15	829-34-3910	A	Yangon	Normal	Female	Health and beauty	71.38	10	35.69	749.49	2019-03-29	19:21:00	Cash	713.8	4.761904762	35.69	5.7	Evening	Friday	March
16	299-46-1805	B	Mandalay	Member	Female	Sports and travel	93.72	6	28.116	590.436	2019-01-15	16:19:00	Cash	562.32	4.761904762	28.116	4.5	Evening	Tuesday	January
17	656-95-9349	A	Yangon	Member	Female	Health and beauty	68.93	7	24.1255	596.6355	2019-03-11	11:03:00	Credit card	482.51	4.761904762	24.1255	4.6	Morning	Monday	March

Query executed successfully.

DESKTOP-SV2DUVB\MSSQLSERVER... DESKTOP-SV2DUVB\Saurab... walmart 00:00:00 1,000 rows

--Generic Question

--1.How many unique cities does the data have ?

```
select distinct city
from walmart_sales;
```

	city
1	Mandalay
2	Yangon
3	Naypyitaw

--2.In which city is each branch

```
select city,branch,count(invoice_id) as branch_count
from walmart_sales
group by city,Branch;
```

	city	branch	branch_count
1	Naypyitaw	C	328
2	Yangon	A	340
3	Mandalay	B	332

--Product

--1. How many unique product lines does the data have?

```
select count(distinct Product_line) as [unique product lines]
from walmart_sales;
```

	unique product lines
1	6

--2.What is most common payment method ?

```
select Payment , COUNT(payment) as [count_of_payment_method]
from walmart_sales
group by Payment
order by count_of_payment_method desc;
```

	Payment	count_of_payment_method
1	Ewallet	345
2	Cash	344
3	Credit card	311

--3.What is the most selling product line?

```
select top 1 Product_line, COUNT(Product_line) as [most selling product line]
from walmart_sales
group by Product_line
order by [most selling product line] desc;
```

Results Messages Client Statistics

	Product_line	most selling product line
1	Fashion accessories	178

--4.What is the total revenue by month?

```
select top 1 month_name,[revenue by month]
from(select ws.month_name,datepart(MM,Date) as month_num,SUM(ws.total)[revenue by
month]
from walmart_sales as ws
group by month_name,datepart(MM,Date))as result_table
order by month_num asc;
```

15/ %

Results Messages Client Statistics

	month_name	revenue by month
1	January	116291.868

--5.What month had the largest COGS?

```
select top 1 ws.month_name , sum(ws.cogs) [largest cogs]
from walmart_sales as ws
group by ws.month_name
order by [largest cogs] desc;
```

157 %

Results Messages Client Statistics

	month_name	largest cogs
1	January	110754.16

--6.What product line had the largest revenue?

```
select top 1 ws.Product_line , sum(ws.Total)[revenue]
from walmart_sales as ws
group by ws.Product_line
order by revenue desc;
```

15/ %

Results Messages Client Statistics

	Product_line	revenue
1	Food and beverages	56144.844

--7.What is the city with the largest revenue?

```
select top 1 ws.City , sum(ws.Total) [revenue]
from walmart_sales as ws
group by ws.City
order by revenue desc;
```

Results Messages Client Statistics

	City	revenue
1	Naypyitaw	110568.7065

```
--8.What product line had the largest VAT ?
select top 1 ws.Product_line , sum(ws.VAT)[Total VAT]
from walmart_sales as ws
group by ws.Product_line
order by [Total VAT];
```

Results	Messages	Client Statistics
Product_line	Total VAT	
1 Health and beauty	2342.559	

```
--9.Fetch each product line and add a column to those product line
showing"Good","Bad",Good ifs its greater than average sales
```

```
--Add column to table
Alter table walmart_sales
add Product_Category Varchar(20);
--update the table
update walmart_sales
set Product_Category =
(
case
when Total >=(select avg(total)[total]from walmart_sales)
then 'Good Sales'
else 'Bad Sales'
end)
from walmart_sales;
```

```
select * from walmart_sales;
```

Invoice_ID	Branch	City	Customer_type	Gender	Product_line	Unit_price	Quantity	VAT	Total	Date	Time	Payment	cogs	gross_margin_percentage	gross_income	Rating	time_of_day	day_name	month_name	Product_Category
1 750-67-9428	A	Yangon	Member	Female	Health and beauty	74.69	7	26.1415	548.9715	2019-01-05	13:08:00	Ewallet	522.83	4.761904762	26.1415	9.1	Afternoon	Saturday	January	Good Sales
2 226-31-3081	C	Naypyitaw	Normal	Female	Electronic accessories	15.28	5	3.82	80.22	2019-03-08	10:29:00	Cash	76.4	4.761904762	3.82	9.6	Morning	Friday	March	Bad Sales
3 631-41-1108	A	Yangon	Normal	Male	Home and lifestyle	46.33	7	16.2155	340.5255	2019-03-03	13:23:00	Credit card	324.31	4.761904762	16.2155	7.4	Afternoon	Sunday	March	Good Sales
4 123-19-1176	A	Yangon	Member	Male	Health and beauty	58.22	8	23.288	489.048	2019-01-27	20:33:00	Ewallet	465.76	4.761904762	23.288	8.4	Evening	Sunday	January	Good Sales
5 373-73-7910	A	Yangon	Normal	Male	Sports and travel	86.31	7	30.2085	634.3785	2019-02-08	10:37:00	Ewallet	604.17	4.761904762	30.2085	5.3	Morning	Friday	February	Good Sales
6 699-14-3026	C	Naypyitaw	Normal	Male	Electronic accessories	85.39	7	29.8865	627.6165	2019-03-25	18:30:00	Ewallet	597.73	4.761904762	29.8865	4.1	Evening	Monday	March	Good Sales
7 355-53-5943	A	Yangon	Member	Female	Electronic accessories	68.84	6	20.652	433.692	2019-02-25	14:36:00	Ewallet	413.04	4.761904762	20.652	5.8	Afternoon	Monday	February	Good Sales
8 315-22-5665	C	Naypyitaw	Normal	Female	Home and lifestyle	73.56	10	36.78	772.38	2019-02-24	11:38:00	Ewallet	735.6	4.761904762	36.78	8	Morning	Sunday	February	Good Sales
9 665-32-9167	A	Yangon	Member	Female	Health and beauty	36.26	2	3.626	76.146	2019-01-10	17:15:00	Credit card	72.52	4.761904762	3.626	7.2	Evening	Thursday	January	Bad Sales
10 692-92-5582	B	Mandalay	Member	Female	Food and beverages	54.94	3	8.226	172.746	2019-02-20	13:27:00	Credit card	164.52	4.761904762	8.226	5.9	Afternoon	Wednesday	February	Bad Sales
11 351-62-0622	B	Mandalay	Member	Female	Fashion accessories	14.48	4	2.896	60.616	2019-02-06	18:07:00	Ewallet	57.82	4.761904762	2.896	4.5	Evening	Wednesday	February	Bad Sales
12 529-56-9794	B	Mandalay	Member	Male	Electronic accessories	25.51	4	5.102	107.142	2019-03-09	17:03:00	Cash	102.04	4.761904762	5.102	6.8	Evening	Saturday	March	Bad Sales
13 365-64-0515	A	Yangon	Normal	Female	Electronic accessories	46.95	5	11.7375	246.4875	2019-02-12	10:25:00	Ewallet	234.75	4.761904762	11.7375	7.1	Morning	Tuesday	February	Bad Sales
14 252-56-2699	A	Yangon	Normal	Male	Food and beverages	43.19	10	21.595	453.495	2019-02-07	16:48:00	Ewallet	431.9	4.761904762	21.595	8.2	Evening	Thursday	February	Good Sales
15 829-34-3910	A	Yangon	Normal	Female	Health and beauty	71.38	10	35.69	749.49	2019-03-29	19:21:00	Cash	713.8	4.761904762	35.69	5.7	Evening	Friday	March	Good Sales
16 299-46-1805	B	Mandalay	Member	Female	Sports and travel	93.72	6	28.116	590.436	2019-01-15	16:19:00	Cash	562.32	4.761904762	28.116	4.5	Evening	Tuesday	January	Good Sales
17 656-95-9349	A	Yangon	Member	Female	Health and beauty	68.93	7	24.1255	506.6355	2019-03-11	11:03:00	Credit card	482.51	4.761904762	24.1255	4.6	Morning	Monday	March	Good Sales

Query executed successfully.

DESKTOP-SV2DUVB\MSSQLSERVER... DESKTOP-SV2DUVB\Saurab... walmart 00:00:00 1,000 rows

```
--10.Which branch sold more products than average product sold?
```

```
SELECT Branch, SUM(Quantity) AS total_products
FROM walmart_sales
GROUP BY Branch
HAVING SUM(Quantity) > (
    SELECT AVG(total_products)
    FROM (
        SELECT SUM(Quantity) AS total_products
        FROM walmart_sales
        GROUP BY Branch
    ) AS t
)
ORDER BY total_products DESC;
```

Results	Messages	Client Statistics
Branch	total_products	
1 A	1859	

--11.What is the most common product line by gender?

-- Most common product line by gender

```
WITH ranked_sales AS (
    SELECT
        ws.Gender,
        ws.Product_line,
        COUNT(ws.Product_line) AS total,
        ROW_NUMBER() OVER (PARTITION BY ws.Gender ORDER BY COUNT(ws.Product_line)
DESC) AS rn
    FROM walmart_sales AS ws
    GROUP BY ws.Gender, ws.Product_line
)
SELECT Gender, Product_line, total
FROM ranked_sales
WHERE rn = 1;
```

	Gender	Product_line	total
1	Female	Fashion accessories	96
2	Male	Health and beauty	88

--12.What is the average rating of each product line?

```
select ws.Product_line , AVG(rating)[average rating]
from walmart_sales as ws
group by ws.Product_line;
```

	Product_line	average rating
1	Fashion accessories	7.02921348314607
2	Home and lifestyle	6.8375
3	Electronic accessories	6.92470588235294
4	Health and beauty	7.00328947368421
5	Food and beverages	7.1132183908046
6	Sports and travel	6.91626506024096

```
select * from walmart_sales;
```

--Sales

--1.Number of sales made in each time of day per weekday

```
select ws.day_name,ws.time_of_day , count(*)[total sales]
from walmart_sales as ws
group by ws.time_of_day,ws.day_name
having ws.day_name not in ('Saturday', 'Sunday')
order by ws.day_name,[total sales] DESC;
```

	day_name	time_of_day	total sales
1	Friday	Afternoon	58
2	Friday	Evening	52
3	Friday	Morning	29
4	Monday	Evening	56
5	Monday	Afternoon	48
6	Monday	Morning	21
7	Thursday	Evening	56
8	Thursday	Afternoon	49
9	Thursday	Morning	33
10	Tuesday	Evening	69
11	Tuesday	Afternoon	53
12	Tuesday	Morning	36
13	Wednesday	Afternoon	61
14	Wednesday	Evening	60
15	Wednesday	Morning	22

```
--2.Which of the customer types brings the most revenue ?
select ws.Customer_type ,sum(total)[total revenue]
from walmart_sales as ws
group by ws.Customer_type
order by [total revenue];
```

	Customer_type	total revenue
1	Normal	158743.305
2	Member	164223.444

```
--3.Which city has the largest tax percentage/VAT(Value Added Tax)?
select top 1 ws.City , max(VAT)[Largest VAT]
from walmart_sales as ws
group by ws.City
order by [Largest VAT] desc;
```

	City	Largest VAT
1	Naypyitaw	49.65

```
--4.Which customer type pays the most in VAT?
select ws.Customer_type , sum(VAT)[Total VAT]
from walmart_sales as ws
group by ws.Customer_type;
```

	Customer_type	Total VAT
1	Member	7820.164
2	Normal	7559.205

--Customer

--1. How many unique customer types does the data have?

```
select distinct ws.customer_type
from walmart_sales as ws;
```

	customer_type
1	Member
2	Normal

--2. How many unique payment methods does the data have?

```
select distinct ws.Payment
from walmart_sales as ws;
```

	Payment
1	Cash
2	Credit card
3	Ewallet

```
--3. What is the most common customer type?
select ws.Customer_type , COUNT(ws.Customer_type) as [common customer type]
from walmart_sales as ws
group by ws.Customer_type;
```

	Customer_type	common customer type
1	Member	501
2	Normal	499

```
--4. Which customer type buys the most?
select ws.Customer_type ,sum(total) as [revenue collection]
from walmart_sales as ws
group by ws.Customer_type
order by [revenue collection] desc;
```

	Customer_type	revenue collection
1	Member	164223.444
2	Normal	158743.305

```
--5. What is the gender of most of the customers?
select ws.Gender , count(*)[most customer]
from walmart_sales as ws
group by ws.Gender
order by [most customer] desc;
```

	Gender	most customer
1	Female	501
2	Male	499

```
--6. What is the gender distribution per branch?
select ws.Branch ,ws.Gender, count(*)[distribution per branch]
from walmart_sales as ws
group by ws.Branch , ws.Gender
order by ws.[Branch], [distribution per branch]desc;
```

	Branch	Gender	distribution per branch
1	A	Male	179
2	A	Female	161
3	B	Male	170
4	B	Female	162
5	C	Female	178

```
--7. Which time of the day do customers give most ratings?
select ws.time_of_day ,AVG(ws.rating)[avg_rating]
from walmart_sales as ws
group by ws.time_of_day
order by avg_rating desc;
```

	time_of_day	avg_rating
1	Afternoon	7.03129973474801
2	Morning	6.96073298429319
3	Evening	6.92685185185185


```
--8. Which time of the day do customers give most ratings per branch?
select ws.Branch,ws.time_of_day,count(ws.Rating)[most_rating]
from walmart_sales as ws
group by ws.time_of_day , ws.Branch
order by Branch;
```

	Branch	time_of_day	most_rating
1	A	Afternoon	126
2	A	Evening	141
3	A	Morning	73
4	B	Afternoon	125
5	B	Evening	148
6	B	Morning	59
7	C	Afternoon	126
8	C	Evening	143
9	C	Morning	59

```
--9. Which day fo the week has the best avg ratings?
select top 1 ws.day_name,AVG(rating)[best rating]
from walmart_sales as ws
group by ws.day_name
order by [best rating] desc;
```

	day_name	best rating
1	Monday	7.1536

```
--10. Which day of the week has the best average ratings per branch?
select ws.Branch,ws.day_name, avg(Rating)[average rating]
from walmart_sales as ws
group by ws.Branch , ws.day_name
order by ws.Branch;
```

	Branch	day_name	average rating
1	A	Friday	7.312
2	A	Monday	7.09791666666667
3	A	Saturday	6.746
4	A	Sunday	7.07884615384615
5	A	Thursday	6.95869565217391
6	A	Tuesday	7.05882352941176
7	A	Wednesday	6.91627906976744
8	B	Friday	6.69411764705882
9	B	Monday	7.33589743589743
10	B	Saturday	6.73666666666667
11	B	Sunday	6.8857142857143
12	B	Thursday	6.75227272727273
13	B	Tuesday	7.00188679245283
14	B	Wednesday	6.452
15	C	Friday	7.27894736842105
16	C	Monday	7.03684210526316
17	C	Saturday	7.22962962962963
18	C	Sunday	7.02826086956522
19	C	Thursday	6.95
20	C	Tuesday	6.95185185185185
21	C	Wednesday	7.064