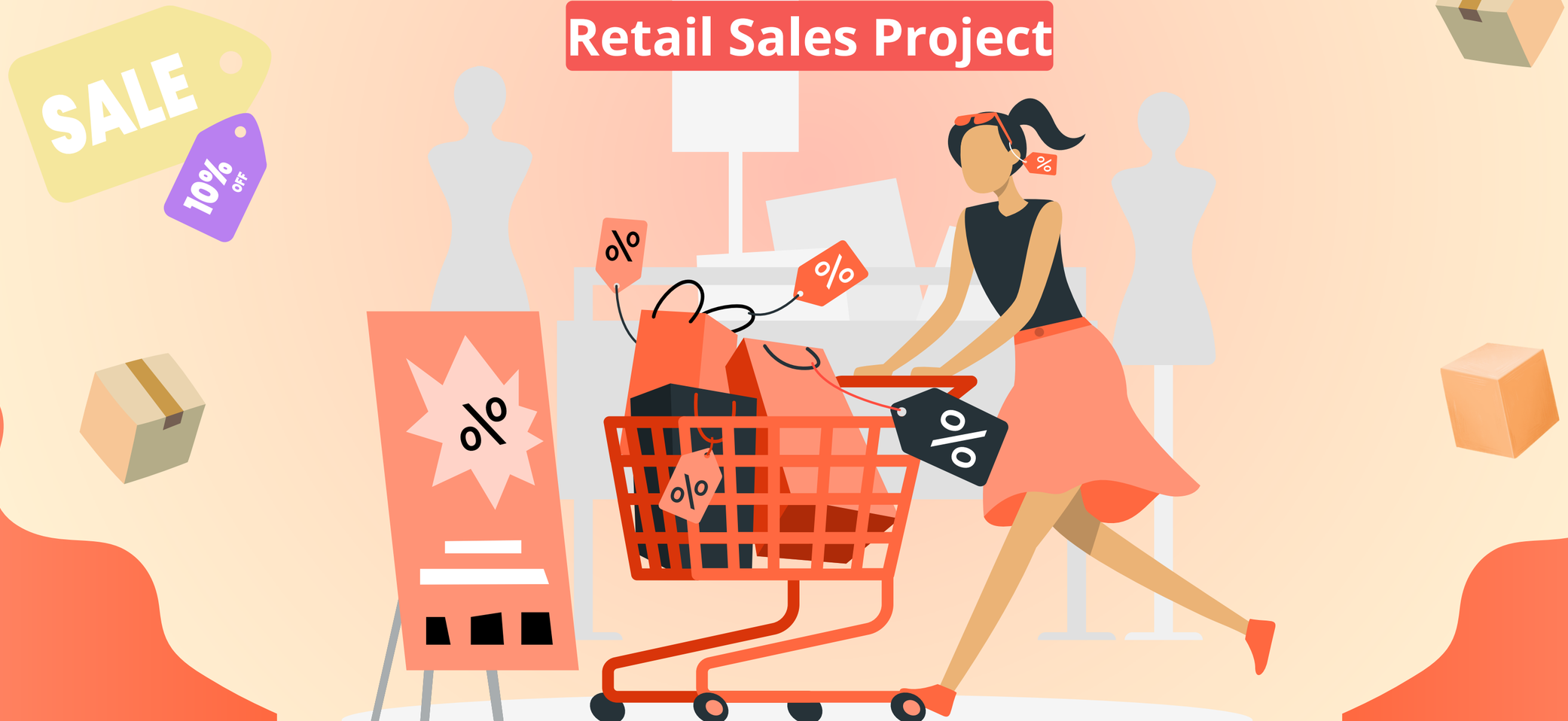
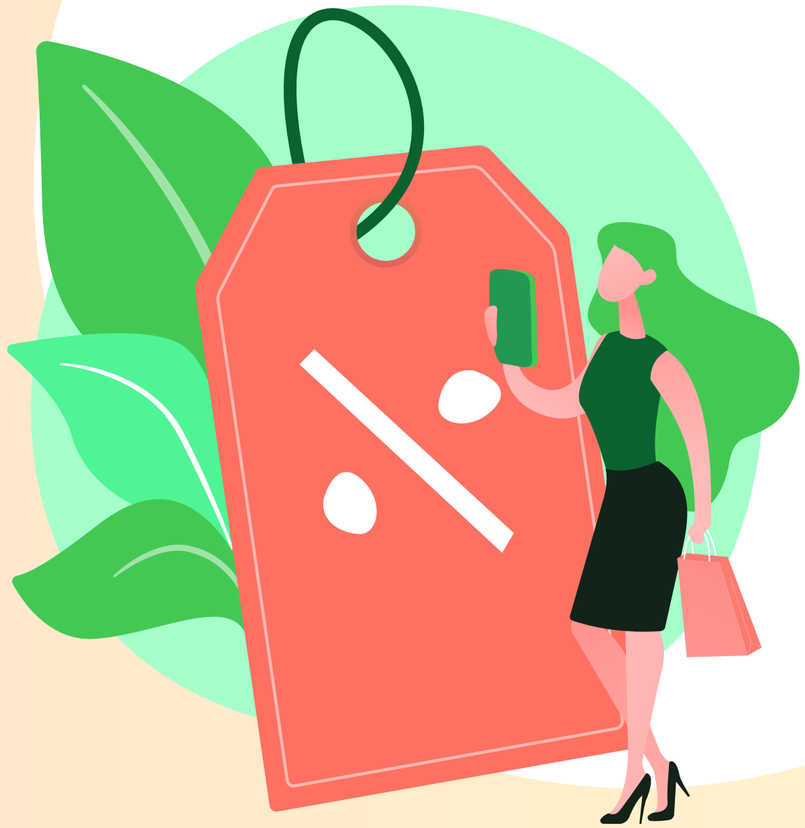
Understanding Strategic Sales Priorities for Sustainable Growth

Retail Sales Project



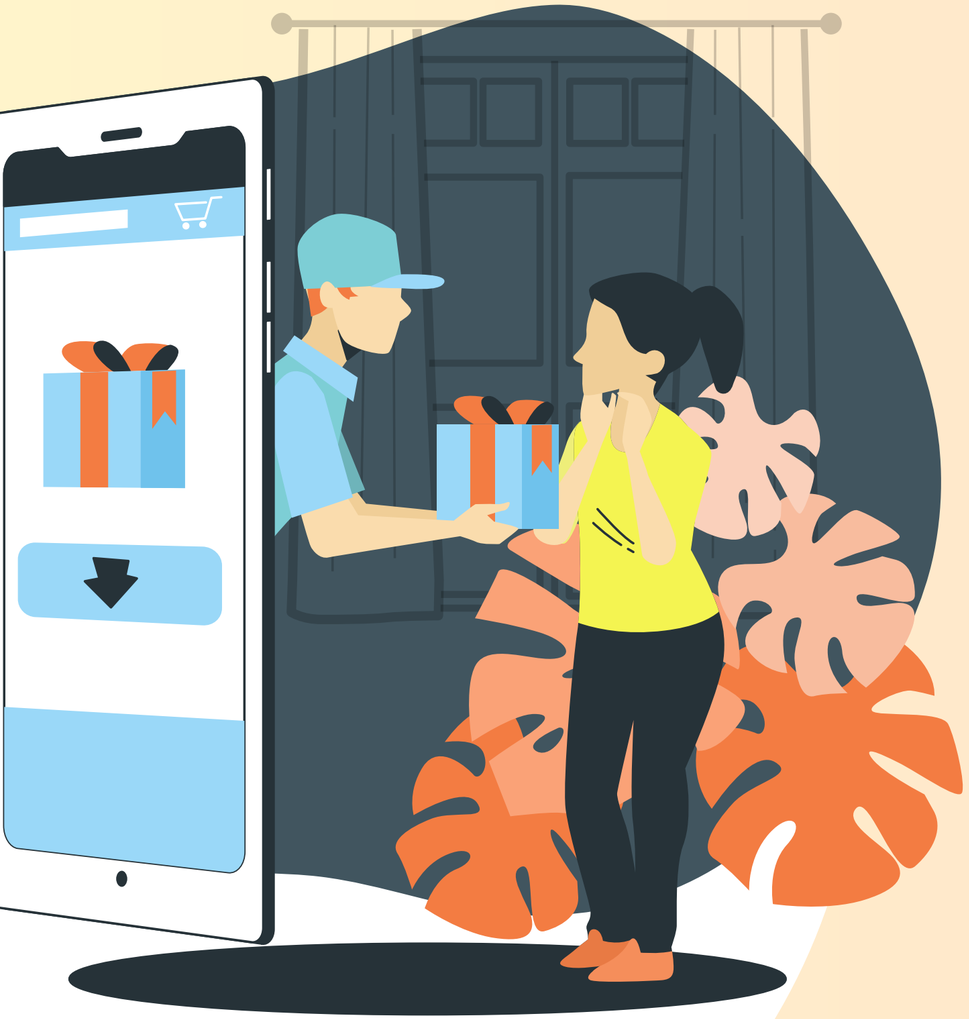
1.data cleaning

```
select * from retail_sale2
 where transactions_id is null
 or
 sale_date is null
 or
 sale_time is null
 or
 customer_id is null
 or
 gender is null
 or
 age is null
 or
 category is null
 or
 quantity is null
 or
 price_per_unit is null
 or
 cogs is null
 or
 total_sale is null;
```

2.deleting the NULL_values rows and column

```
delete from retail_sale2
 where transactions_id is null
 or
 sale_date is null
 or
 sale_time is null
 or
 customer_id is null
 or
 gender is null
 or
 age is null
 or
 category is null
 or
 quantity is null
 or
 price_per_unit is null
 or
 cogs is null
 or
 total_sale is null;
```



NEXT SLIDE

data exploring

3.how many sales are there

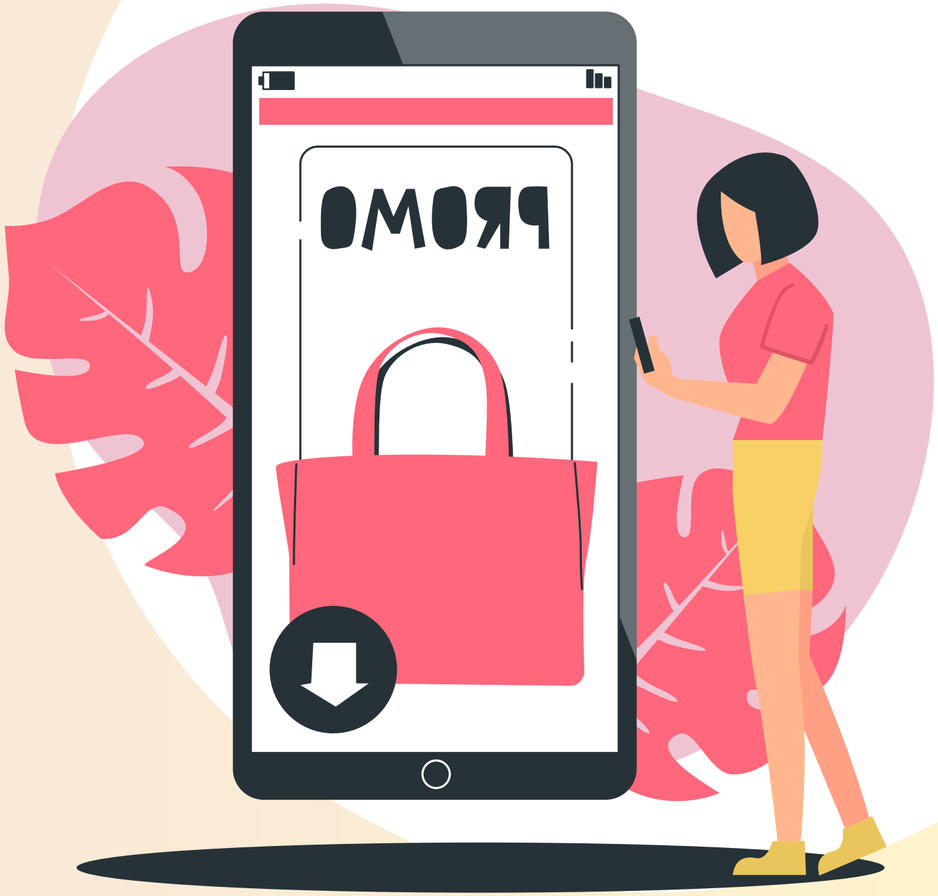
```
select count(*) as total_sales from retail_sale2;
```

4.how many unique customer we have

```
select count(distinct customer_id) as total_customer from retail_sale2;
```

1.write a SQL query to retieve all columns for sales made on '2022-11-05'

```
select * from retail_sale2
where sale_date = '2022-11-05';
```



2.write a SQL query to retrieve all transaction where the category is 'clothing'
-and the quantity sold is more than 10 in the month of nov-2022

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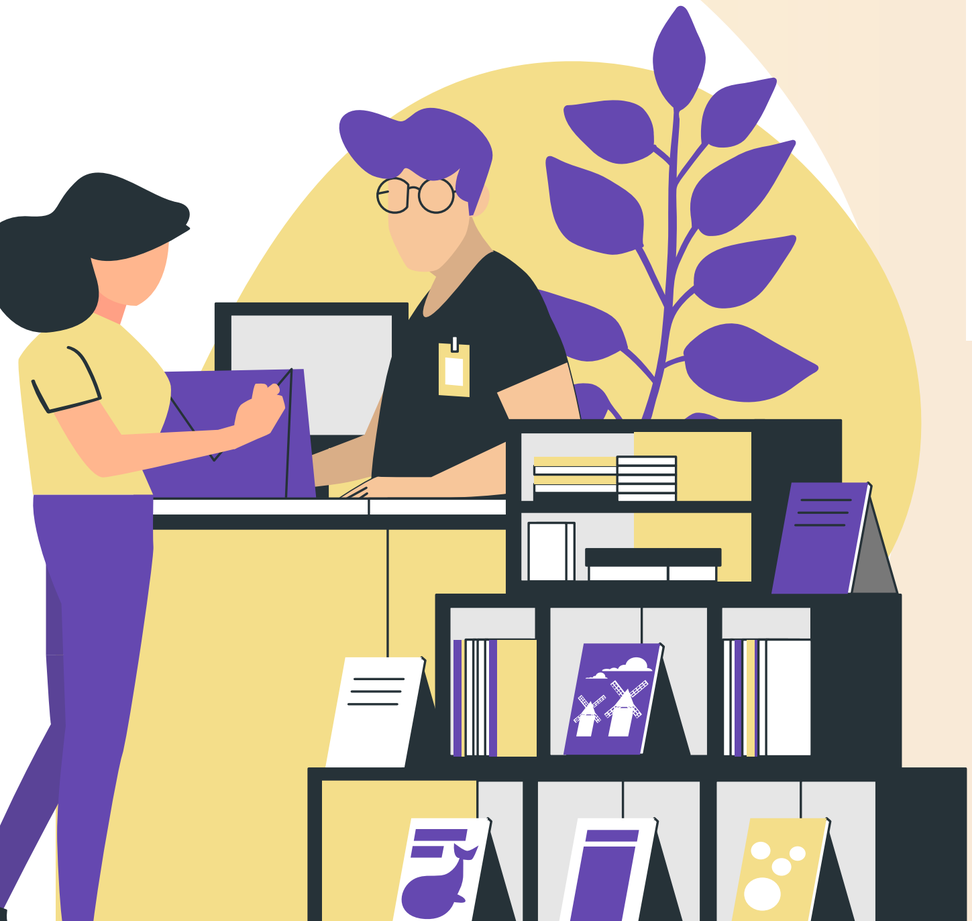
```
select * from retail_sale2
where category ='clothing'
and quantity>10
and month(sale_date) = 11
and year(sale_date) = 2022;
```



3.write a SQL query to calculate total sales (total_sales) for each category.

```
select category,
sum(total_sale) as net_sale,
count(*) as total_order
from retail_sale2
group by category
order by net_sale;
```

4.write a SQL query to find the average age of customer who purchased items from the 'beauty' category.

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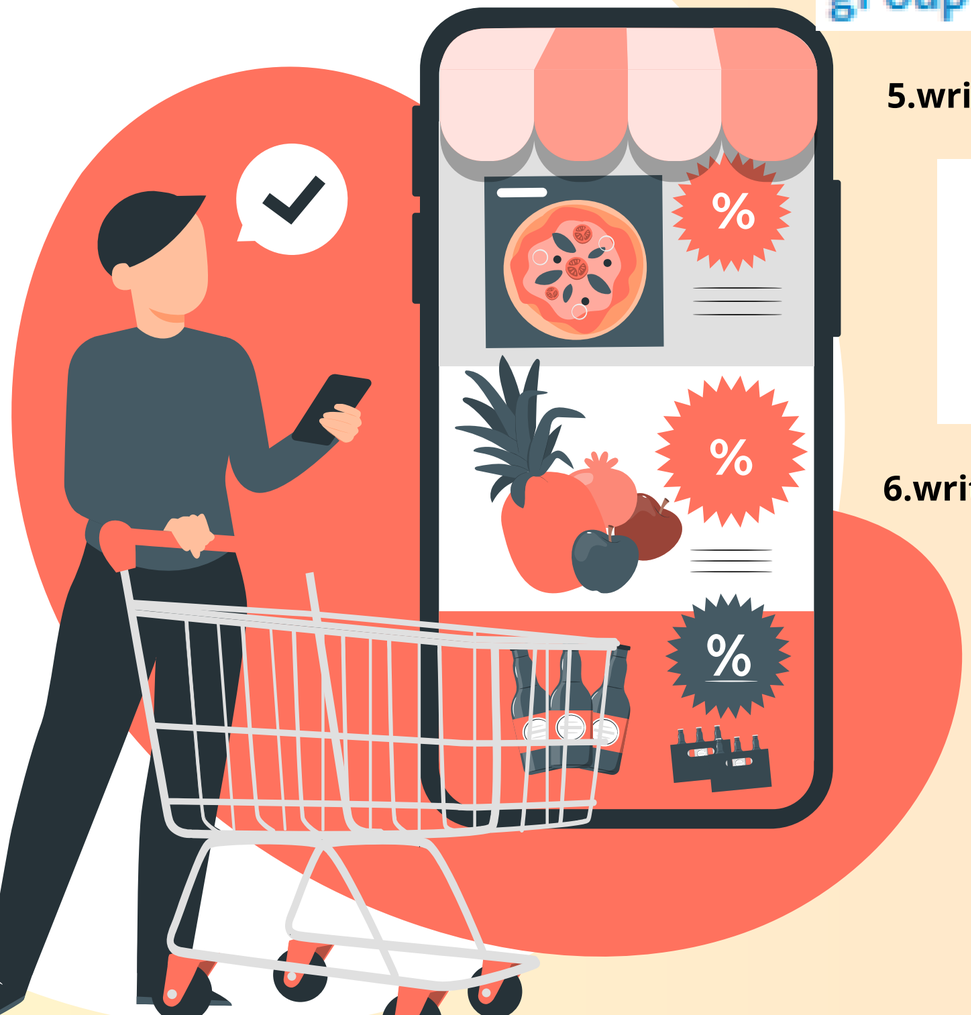
```
select category,round(avg(age),0) as average_age
from retail_sale2
where category = 'beauty'
group by category;
```



5.write a SQL query to find all transactions where the total sale is grater than 1000.

```
select * from retail_sale2
where total_sale>1000;
```

6.write a SQL query to find the total number of (transactions_id) made by each gender in each category

```
select distinct gender,category,count(transactions_id)
from retail_sale2
group by gender,category;
```

7.write the SQL query to calculate the total sale for each month. find out best selling month in each year.

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```sql
select * from(
select rank() over(partition by extract(year from sale_date) order by round(avg(total_sale),0) desc) as rank_of_total_sale,
extract(year from sale_date) as year,
extract(month from sale_date) as month,
round(avg(total_sale),0)as total_sale
from retail_sale2
group by year,month
) as t1
where rank_of_total_sale = 1;
```

8.write a SQL query to find the top 5 customers based on the total sales

```sql
select customer_id, sum(total_sale) as total_sales
from retail_sale2
group by customer_id
order by total_sales desc limit 5;
```

NEXT SLIDE →

9.write a SQL query to find the number of unique customers who purchased item from each category

```sql
select category,count(distinct customer_id) as unique_customer from retail_sale2
group by category;
```

10.write a SQL query to create each shift and number of orders (example morning<=12, afternoon between 12 & 17, evening>17)

```sql
with hourly_sales as(
select *,
case
when extract(hour from sale_time)<12 then 'morning'
when extract(hour from sale_time) between 12 and 17 then 'afternoon'
else 'evening'
end as shift
from retail_sale2)
select shift,
count(*)as total_orders
from hourly_sales
group by shift;
```

THANK YOU
Q AND A SESSION

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