

SQL CASE STUDY ON DATA MART SALES

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SCHEMA USED

CLEAN_WEEKLY_SALES TABLE

	week_date	Week_number	Month_number	calender_year	region	platform	segment	age_band	demographic	customer_type	transactions	sales	avg_transaction
*	2020-08-31	35	8	2020	ASIA	Retail	C3	Retirees	Couples	New	120631	3656163	30.31
	2020-08-31	35	8	2020	ASIA	Retail	F1	Young Adults	Families	New	31574	996575	31.56
	2020-08-31	35	8	2020	USA	Retail	null	Unknown	Unknown	Guest	529151	16509610	31.20
	2020-08-31	35	8	2020	EUROPE	Retail	C1	Young Adults	Couples	New	4517	141942	31.42
	2020-08-31	35	8	2020	AFRICA	Retail	C2	Middle Aged	Couples	New	58046	1758388	30.29
	2020-08-31	35	8	2020	CANADA	Shopify	F2	Middle Aged	Families	Existing	1336	243878	182.54
	2020-08-31	35	8	2020	AFRICA	Shopify	F3	Retirees	Families	Existing	2514	519502	206.64
	2020-08-31	35	8	2020	ASIA	Shopify	F1	Young Adults	Families	Existing	2158	371417	172.11
	2020-08-31	35	8	2020	AFRICA	Shopify	F2	Middle Aged	Families	New	318	49557	155.84
	2020-08-31	35	8	2020	AFRICA	Retail	C3	Retirees	Couples	New	111032	3888162	35.02
	2020-08-31	35	8	2020	USA	Shopify	F1	Young Adults	Families	Existing	1398	260773	186.53
	2020-08-31	35	8	2020	OCEANIA	Shopify	C2	Middle Aged	Couples	Existing	4661	882690	189.38
	2020-08-31	35	8	2020	SOUTH ...	Retail	C2	Middle Aged	Couples	Existing	1029	38762	37.67
	2020-08-31	35	8	2020	SOUTH ...	Shopify	C4	Retirees	Couples	New	6	917	152.83
	2020-08-31	35	8	2020	EUROPE	Shopify	F3	Retirees	Families	Existing	115	35215	306.22
	2020-08-31	35	8	2020	OCEANIA	Retail	F3	Retirees	Families	Existing	551905	30371770	55.03
	2020-08-31	35	8	2020	ASIA	Shopify	C3	Retirees	Couples	Existing	1969	374327	190.11
	2020-08-31	35	8	2020	AFRICA	Retail	F1	Young Adults	Families	Existing	97604	5185233	53.13
	2020-08-31	35	8	2020	OCEANIA	Retail	C2	Middle Aged	Couples	New	111219	2980673	26.80
	2020-08-31	35	8	2020	USA	Retail	F1	Young Adults	Families	New	11820	463738	39.23
	2020-08-31	35	8	2020	SOUTH ...	Retail	F3	F1 retirees	Families	Existing	1363	65730	48.22

WEEKLY_SALES TABLE

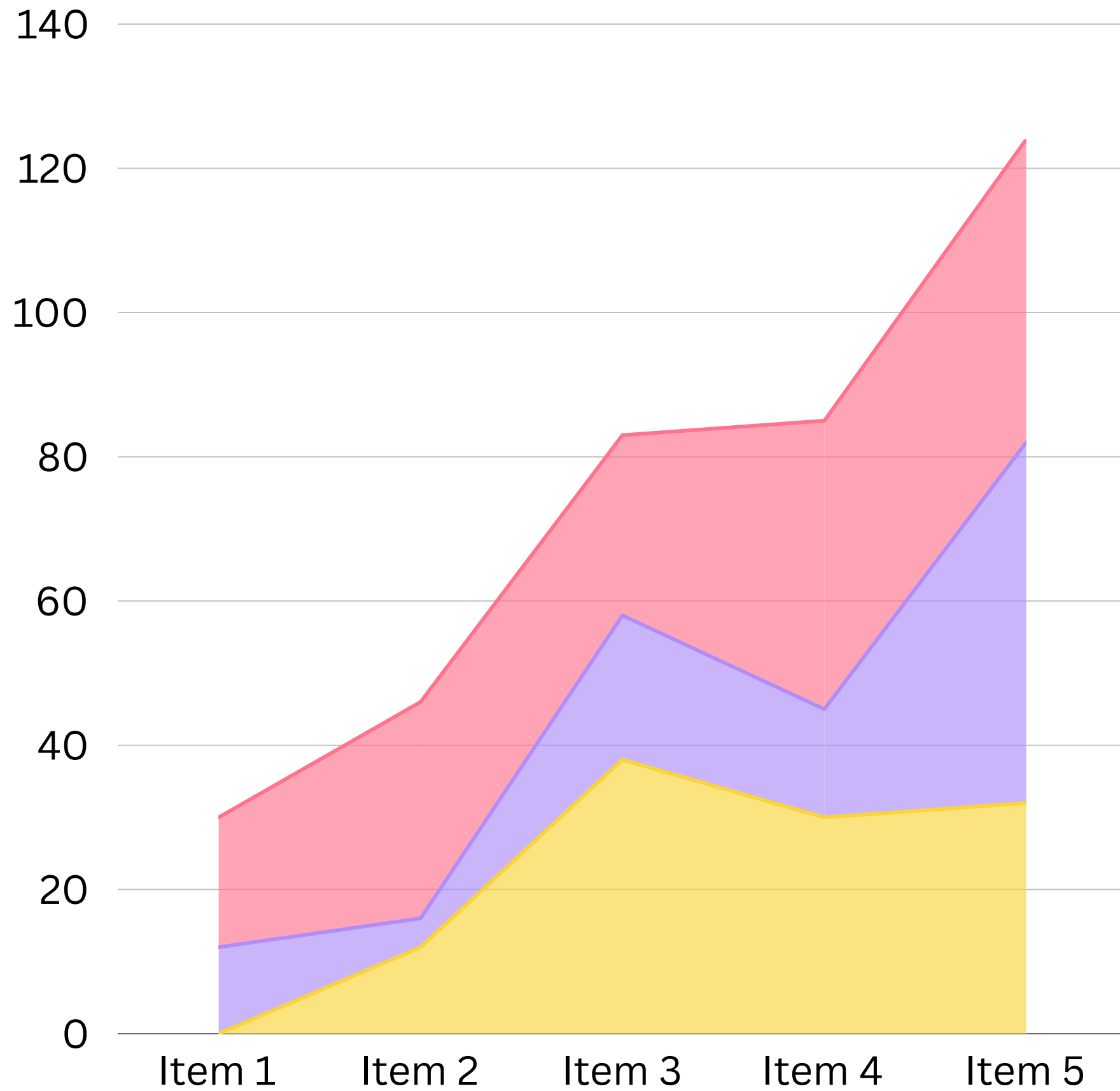
week_date	region	platform	segment	customer_type	transactions	sales
2020-08-31	ASIA	Retail	C3	New	120631	3656163
2020-08-31	ASIA	Retail	F1	New	31574	996575
2020-08-31	USA	Retail	null	Guest	529151	16509610
2020-08-31	EUROPE	Retail	C1	New	4517	141942
2020-08-31	AFRICA	Retail	C2	New	58046	1758388
2020-08-31	CANADA	Shopify	F2	Existing	1336	243878
2020-08-31	AFRICA	Shopify	F3	Existing	2514	519502
2020-08-31	ASIA	Shopify	F1	Existing	2158	371417
2020-08-31	AFRICA	Shopify	F2	New	318	49557
2020-08-31	AFRICA	Retail	C3	New	111032	3888162
2020-08-31	USA	Shopify	F1	Existing	1398	260773
2020-08-31	OCEANIA	Shopify	C2	Existing	4661	882690
2020-08-31	SOUTH ...	Retail	C2	Existing	1029	38762

SEQUENCE_100 TABLE

Result Grid	
	x
▶	1
	2
	3
	4
	5
	6
	7
	8
	9
	10
	11
	12
	13
	14

SEQUENCE_52 TABLE

Result Grid	
	x
	40
	41
	42
	43
	44
	45
	46
	47
	48
	49
	50
	51
	52



**QUERIES TO
ANSWER
USING
SQL
COMMANDS**

1. Which week numbers are missing from dataset?

```
select distinct x as week_day
```

```
from sequence52
```

```
where x not in (select distinct week_number from clean_weekly_sales);
```

```
select distinct week_number from clean_weekly_sales;
```

	week_number
▶	35
	34
	33
	32
	31
	30
	29
	28
	27

2. How many total transactions were there for each year in the dataset?

```
select calender_year,  
sum(transactions) as total_transactions  
from clean_weekly_sales group by calender_year;
```

	calender_year	total_transactions
.	2020	375813651
	2019	365639285
	2018	346406460

3.What are the total sales for each region for each month?

```
select region,month_number,  
sum(sales) as total_sales  
from clean_weekly_sales  
group by month_number,region;
```

region	month_number	total_sales
ASIA	8	1663320609
USA	8	712002790
EUROPE	8	122102995
AFRICA	8	1809596890
CANADA	8	447073019
OCEANIA	8	2432313652
SOUTH AMERICA	8	221166052
AFRICA	7	1960219710
CANADA	7	477134947

4. What is the total count of the transactions for each platform?

```
select platform,  
sum(transactions) as total_transactions  
from clean_weekly_sales  
group by platform;
```

platform	total_transactions
Retail	1081934227
Shopify	5925169

5. What is the percentage of sales for Retail vs Shopify for each month?

```
with cte_monthly_platform_sales as
(select month_number,calender_year,platform,
sum(sales) as monthly_sales
from clean_weekly_sales
group by month_number,calender_year,platform)

select month_number,calender_year,
round(100*max(case when platform='Retail'
then monthly_sales else null end)/sum(monthly_sales),2)
as retail_percentage,
round(100*max(case when platform='shopify'
then monthly_sales else null end)/sum(monthly_sales),2)
as shopify_percentage
from cte_monthly_platform_sales
group by month_number,calender_year;
```

month_number	calender_year	retail_percentage	shopify_percentage
8	2020	96.51	3.49
7	2020	96.67	3.33
6	2020	96.80	3.20
5	2020	96.71	3.29
4	2020	96.96	3.04
3	2020	97.30	2.70
9	2019	97.09	2.91
8	2019	97.21	2.79
7	2019	97.35	2.65
6	2019	97.42	2.58

6. What is the percentage of sales by demographic for each year in the dataset?

```
select calender_year,demographic,  
sum(sales) as yearly_sales,  
round(100*sum(sales)/sum(sum(sales))  
over(partition by demographic),2) as percentage  
from clean_weekly_sales  
group by calender_year,demographic;
```

calender_year	demographic	yearly_sales	percentage
2020	Couples	4049566928	36.15
2019	Couples	3749251935	33.47
2018	Couples	3402388688	30.38
2020	Families	4614338065	34.95
2019	Families	4463918344	33.81
2018	Families	4125558033	31.25
2020	Unknown	5436315907	33.27
2019	Unknown	5532862221	33.86
2018	Unknown	5369434106	32.86

7.Which age_band and demographic values contribute the most to the retail sales?

```
select age_band,demographic,
sum(sales) as total_sales
from clean_weekly_sales
where platform='Retail'
group by age_band,demographic
order by total_sales desc;
```

age_band	demographic	total_sales
Unknown	Unknown	16067285533
Retirees	Families	6634686916
Retirees	Couples	6370580014
Middle Aged	Families	4354091554
Young Adults	Couples	2602922797
Middle Aged	Couples	1854160330
Young Adults	Families	1770889293

THANK YOU

