

ANALYZING SALES TRENDS FOR DIFFERENT BUSINESS SEGMENT

Brief introduction:

This project was analyzed with two tables listed below on MYSQL Workbench for the impact of banking trends on customer transactions across different regions.

1. Sale_Invoice: table sample is displayed below

NAME	posting_date	customer_name	customer	business_segment	
ACC-SINV-2022-46625	11/1/2022	MRS ABIOLA	CUST-2021-03698	Retail	
ACC-SINV-2022-46626	11/1/2022	MRS OWOLABI	CUST-2021-05630	Retail	
ACC-SINV-2022-46627	11/1/2022	MRS CHIAMAKA	CUST-2022-07998	Retail	
ACC-SINV-2022-46628	11/1/2022	MRS. MARGARET	CUST-2022-00700	Retail	
ACC-SINV-2022-46635	11/1/2022	MRS ENYINGWA GRACE	CUST-2021-04367	Retail	
ACC-SINV-2022-46638	11/1/2022	LEKKI WALK IN	CUST-2020-05157	Retail	
ACC-SINV-2022-46643	11/1/2022	MR. MAYOWA	CUST-2022-08026	Retail	
ACC-SINV-2022-46647	11/1/2022	IKEJA WALK-IN CUSTOMER	CUST-2020-00492	Retail	
ACC-SINV-2022-46649	11/1/2022	MRS SANDY JOYCE	CUST-2022-08027	Retail	
ACC-SINV-2022-46650	11/1/2022	MRS HELEN	CUST-2021-06534	Retail	
ACC-SINV-2022-46653	11/1/2022	ROYAL GATE ACADEMY - 1	CUST-2020-13192	Retail	
ACC-SINV-2022-46654	11/1/2022	MRS JAYEOLA KOFOWOROLA	CUST-2020-07602	Retail	
ACC-SINV-2022-46655	11/1/2022	GWARINPA WALK IN CUSTOMER	CUST-2022-01977	Retail	
ACC-SINV-2022-46659	11/1/2022	MRS JAYEOLA KOFOWOROLA	CUST-2020-07602	Retail	
ACC-SINV-2022-46662	11/1/2022	MR AKEEM	CUST-2022-08028	Retail	
ACC-SINV-2022-46663	11/1/2022	TRENDSETTERS SCHOOL	CUST-2021-06533	Retail	
ACC-SINV-2022-46665	11/1/2022	APEX OLIVE COLLEGE	CUST-2021-06706	Wholesale	
ACC-SINV-2022-46666	11/1/2022	SURULERE WALK-IN CUSTOMER	CUST-2020-14373	Retail	
ACC-SINV-2022-46667	11/1/2022	BAKARI	CUST-2020-11493	Retail	
ACC-SINV-2022-46668	11/1/2022	MRS BASSEY-1	CUST-2020-03683	Retail	
ACC-SINV-2022-46669	11/1/2022	MR MATHEW ODEH	CUST-2020-04478	Retail	
ACC-SINV-2022-46670	11/1/2022	NAYVILLE BRITISH SCHOOL	CUST-2020-09035	Retail	
ACC-SINV-2022-46671	11/1/2022	IKEJA WALK-IN CUSTOMER	CUST-2020-00492	Retail	
ACC-SINV-2022-46672	11/1/2022	MRS MOYOSOLA OTUFALE	CUST-2020-02101	Retail	
ACC-SINV-2022-46673	11/1/2022	MRS MOYOSOLA OTUFALE	CUST-2020-02101	Retail	
ACC-SINV-2022-46674	11/1/2022	GWARINPA WALK IN CUSTOMER	CUST-2022-01977	Retail	

2. Sale_Invoice_item: table sample is displayed below

location	parent	item_name	net_amount	quantity	item_group	
Ikeja Outle	ACC-SINV-	MX SURGE	11000	1	FANCY DRESS	
Gwarinpa	ACC-SINV-	STRAW BC	3000	2	STATIONERY	
Gwarinpa	ACC-SINV-	STABILO E	10000	10	STATIONERY	
Gwarinpa	ACC-SINV-	SCHNEIDE	12500	5	STATIONERY	
Gwarinpa	ACC-SINV-	TRANSPAR	600	1	STATIONERY	
Gwarinpa	ACC-SINV-	MILAN CO	700	1	STATIONERY	
Gwarinpa	ACC-SINV-	SHOE SHIN	400	1	BOARDING HOUSE ITEM	
Lekki Outle	ACC-SINV-	EASY ON S	1600	1	LIFESTYLE	
Lekki Outle	ACC-SINV-	NAIL CUTT	200	1	BOARDING HOUSE ITEM	
Lekki Outle	ACC-SINV-	PYT SURGE	12000	1	FANCY DRESS	
Gwarinpa	ACC-SINV-	BIC CRISTA	1000	10	STATIONERY	7160
Gwarinpa	ACC-SINV-	WHITE/BR	200	1	STATIONERY	
Ikota Outle	ACC-SINV-	BOND ASS	2200	1	BOOKS	
Ikota Outle	ACC-SINV-	AMAZON K	46800	1	EDUCATIONAL AIDS	
Ikota Outle	ACC-SINV-	AMAZON K	8800	2	EDUCATIONAL AIDS	
Lekki Outle	ACC-SINV-	SNICKERS	1000	2	FOOD AND CONSUMABLES	
Wuse Outle	ACC-SINV-	MH PO8 ZI	9500	1	UNIFORM PINAFORE/DRESS	
Wuse Outle	ACC-SINV-	FT ADJ CRO	3100	1	DRESS ACCESSORIES	
Wuse Outle	ACC-SINV-	MH S/S PP	6300	1	UNIFORM BLOUSE	
Ikeja Outle	ACC-SINV-	SNICKERS	500	1	FOOD AND CONSUMABLES	
Ikeja Outle	ACC-SINV-	DEEP CLEA	1100	1	LIFESTYLE	
Ikeja Outle	ACC-SINV-	CHI EXOTI	350	1	FOOD AND CONSUMABLES	
Port-Harcc	ACC-SINV-	HAIR BAN	1600	1	DRESS ACCESSORIES	
Port-Harcc	ACC-SINV-	MAX HOM	2100	1	LUNCH PACK	
Port-Harcc	ACC-SINV-	MARVEL I	900	1	GIFT & TOYS	
Port-Harcc	ACC-SINV-	LAURA SLI	20300	1	FOOT WEAR	

Database creation:

```
CREATE DATABASE DA_ASSESSMENT;
```

Database Activation:

```
use da_assessment;
```

Viewing all data on each table:

```
SELECT * from item;
```

```
SELECT * from invoice;
```

Note: For ease of working on MYSQL workbench sale_invoice, and sale_invoice_item were renamed to invoice and item respectively

Query and sample of displayed results required for QUESTION 1-5:

#Q1: Join the two tables together

```
select * from invoice join item on invoice.name =item.parent;
```

	NAME	posting_date	customer_name	customer	business_segment	location	parent	item_name	net_amount	quantity	item_group
▶	ACC-SINV-2022-46625	11/1/2022	MRS ABIOLA	CUST-2021-03698	Retail	Ikeja Outlet - SKL	ACC-SINV-2022-46625	MX SURGEON CHILDREN COSTUME (S)	11000	1	FANCY DRESS
	ACC-SINV-2022-46626	11/1/2022	MRS OWOLABI	CUST-2021-05630	Retail	Gwarinpa Outlet - SKL	ACC-SINV-2022-46626	STRAW BOARD	3000	2	STATIONERY
	ACC-SINV-2022-46626	11/1/2022	MRS OWOLABI	CUST-2021-05630	Retail	Gwarinpa Outlet - SKL	ACC-SINV-2022-46626	STABILO EXAM GRADE PEN BLACK	10000	10	STATIONERY
	ACC-SINV-2022-46626	11/1/2022	MRS OWOLABI	CUST-2021-05630	Retail	Gwarinpa Outlet - SKL	ACC-SINV-2022-46626	SCHNEIDER ONE HYBRID C (BLACK)	12500	5	STATIONERY
	ACC-SINV-2022-46626	11/1/2022	MRS OWOLABI	CUST-2021-05630	Retail	Gwarinpa Outlet - SKL	ACC-SINV-2022-46626	TRANSPARENT RULER	600	1	STATIONERY
	ACC-SINV-2022-46626	11/1/2022	MRS OWOLABI	CUST-2021-05630	Retail	Gwarinpa Outlet - SKL	ACC-SINV-2022-46626	MILAN COMPACT SUNSET PENCIL SHARPENER	700	1	STATIONERY
	ACC-SINV-2022-46626	11/1/2022	MRS OWOLABI	CUST-2021-05630	Retail	Gwarinpa Outlet - SKL	ACC-SINV-2022-46626	SHOE SHINE (L) BLACK	400	1	BOARDING HOUSE
	ACC-SINV-2022-46627	11/1/2022	MRS OWOLABI	CUST-2021-05630	Retail	Gwarinpa Outlet - SKL	ACC-SINV-2022-46627	EASY ON BOARD AV STATION	1600	1	STATIONERY

#Q2 Top 5 customers according to their respective net_amount

```
SELECT parent, net_amount from item
```

```
ORDER BY parent DESC LIMIT 5;
```

	parent	net_amount
▶	ACC-SINV-2023-07127-1	9300
	ACC-SINV-2023-00820	658000
	ACC-SINV-2023-00820	3600000
	ACC-SINV-2023-00816	3600000
	ACC-SINV-2023-00816	685000

Q3 Top 10 item groups according to quantities

```
SELECT item_group, quantity from item
ORDER BY quantity DESC LIMIT 10;
```

	item_group	quantity
▶	UNIFORM BADGE	347
	MONOGRAMMING	339
	UNIFORM BADGE	300
	MONOGRAMMING	257
	UNIFORM SHORTS	250
	BOARDING HOUSE ITEM	230
	UNIFORM BADGE	223
	DRESS ACCESSORIES	210
	DRESS ACCESSORIES	207

/* Q4 Number of customers in the table;
 assuming the customer column in the sales_invoice table
 represents the unique customer code given to each customer*/

```
select count(customer) from invoice;
```

	item_group	quantity
▶	UNIFORM BADGE	347
	MONOGRAMMING	339
	UNIFORM BADGE	300
	MONOGRAMMING	257
	UNIFORM SHORTS	250
	BOARDING HOUSE ITEM	230
	UNIFORM BADGE	223
	DRESS ACCESSORIES	210
	DRESS ACCESSORIES	207

Q5 Group the item_groups to an item_class of uniform and non uniform

```
select distinct item_group from item;
```

item_group
FANCY DRESS
STATIONERY
BOARDING HOUSE ITEM
LIFESTYLE
BOOKS
EDUCATIONAL AIDS
FOOD AND CONSUMABLES
UNIFORM PINAFORE/DRESS
DRESS ACCESSORIES

#Q5a. Uniform_Item

```
CREATE VIEW Uniform_Item_Class AS SELECT item_group FROM item
```

```
WHERE item_group IN
```

```
('UNIFORM PINAFORE/DRESS', 'UNIFORM BLOUSE', 'UNIFORM SHORTS', 'UNIFORM SHIRT', 'UNIFORM CARDIGAN', 'UNIFORM SKIRT', 'UNIFORM POLO', 'UNIFORM TROUSER', 'UNIFORM BADGE', 'UNIFORM BLAZER', 'UNIFORM ELECTIVE', 'UNIFORM SKORT', 'CUSTOMIZED UNIFORM')
```

```
Group by item_group;
```

item_group
FANCY DRESS
STATIONERY
BOARDING HOUSE ITEM
LIFESTYLE
BOOKS
EDUCATIONAL AIDS
FOOD AND CONSUMABLES
UNIFORM PINAFORE/DRESS
DRESS ACCESSORIES

```
CREATE VIEW Uniform_Item_Class_All AS SELECT * FROM item
```

```
WHERE item_group IN
```

```
('UNIFORM PINAFORE/DRESS', 'UNIFORM BLOUSE', 'UNIFORM SHORTS', 'UNIFORM SHIRT', 'UNIFORM CARDIGAN', 'UNIFORM SKIRT', 'UNIFORM POLO', 'UNIFORM TROUSER', 'UNIFORM BADGE', 'UNIFORM BLAZER', 'UNIFORM ELECTIVE', 'UNIFORM SKORT', 'CUSTOMIZED UNIFORM')
```

```
Group by item_group;
```

	location	parent	item_name	net_amount	quantity	item_group
►	Websales - SKL	ACC-SINV-2022-47117	MHS NANNY UNIFORM (S)	12900	2	CUSTOMIZED UNIFORM
	Ikota Outlet - SKL	ACC-SINV-2022-46688	LEARNING LADDER SCHOOL BADGE	105000	300	UNIFORM BADGE
	Abuja - SKL	ACC-SINV-2022-46697	MH GIRLS BLAZER (33) NAVY	18200	1	UNIFORM BLAZER
	Wuse Outlet - SKL	ACC-SINV-2022-46643	MH S/S PP BLOUSE (12) WHITE	6300	1	UNIFORM BLOUSE
	Port-Harcourt Outlet - SKL	ACC-SINV-2022-46663	MH VNECK JUMPER (10) NAVY	8500	1	UNIFORM CARDIGAN

Q5b. Non_Uniform_Item

```
CREATE VIEW Non_Uniform_Item_View AS SELECT item_group FROM item
```

```
WHERE item_group in
```

```
('FANCY DRESS', 'STATIONERY', 'BOARDING HOUSE ITEM', 'LIFESTYLE', 'BOOKS', 'EDUCATIONAL AIDS',
'FOOD AND CONSUMABLES', 'DRESS ACCESSORIES', 'LUNCH PACK', 'GIFT & TOYS', 'FOOT WEAR',
'SPORTSGEAR', 'BAG', 'OFFICE SUPPLIES', 'BALLET GEAR', 'PARTY SUPPLIES', 'ARTS & CRAFTS', 'MUSICAL
INSTRUMENT', 'HYGIENE SUPPLIES', 'RAINWEAR', 'SPORTSWEAR', 'MONOGRAMMING', 'NON FOOD
ITEM', 'Fashion Shirts')
```

```
GROUP BY item_group;
```

	item_group
►	ARTS & CRAFTS
	BAG
	BALLET GEAR
	BOARDING HOUSE ITEM
	BOOKS
	DRESS ACCESSORIES
	EDUCATIONAL AIDS
	FANCY DRESS
	Fashion Shirts

```
CREATE VIEW Non_Uniform_Item_View_All AS SELECT * FROM item
```

```
WHERE item_group in
```

```
('FANCY DRESS', 'STATIONERY', 'BOARDING HOUSE ITEM', 'LIFESTYLE', 'BOOKS', 'EDUCATIONAL AIDS',
'FOOD AND CONSUMABLES', 'DRESS ACCESSORIES', 'LUNCH PACK', 'GIFT & TOYS', 'FOOT WEAR',
'SPORTSGEAR', 'BAG', 'OFFICE SUPPLIES', 'BALLET GEAR', 'PARTY SUPPLIES', 'ARTS & CRAFTS', 'MUSICAL
INSTRUMENT', 'HYGIENE SUPPLIES', 'RAINWEAR', 'SPORTSWEAR', 'MONOGRAMMING', 'NON FOOD
ITEM', 'Fashion Shirts')
```

```
GROUP BY item_group;
```

location	parent	item_name	net_amount	quantity	item_group
Lekki Outlet - SKL	ACC-SINV-2022-46745	MM BLACK PAPER SKETCH PAD 25 SHEET	1800	1	ARTS & CRAFTS
Surulere Outlet - SKL	ACC-SINV-2022-46684	CSS LONDON 51395 LAPTOP BAG-GREY/BLACK	33200	1	BAG
Gwarinpa Outlet - SKL	ACC-SINV-2022-46705	BALLET TIGHT (L) PINK	3700	1	BALLET GEAR
Gwarinpa Outlet - SKL	ACC-SINV-2022-46626	SHOE SHINE (L) BLACK	400	1	BOARDING HOUSE ITEM
Ikota Outlet - SKL	ACC-SINV-2022-46635	BOND ASSESSMENT MATHS (6 - 7)	2200	1	BOOKS
Wuse Outlet - SKL	ACC-SINV-2022-46643	FT ADJ CROSS TIE (FREE SIZE) BLUE/GOLD	3100	1	DRESS ACCESSORIES
Ikota Outlet - SKL	ACC-SINV-2022-46635	AMAZON KINDLE FIRE HD 7 (16GB)	46800	1	EDUCATIONAL AIDS
Ikeja Outlet - SKL	ACC-SINV-2022-46625	MX SURGEON CHILDREN COSTUME (S)	11000	1	FANCY DRESS
NGC/O - SKL	ACC-SINV-2022-46436	KANIN T-SHIRT	240000	80	Fashion Shirts