

AgeX Shipping Company Data Analysis

Presenter

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Outlines



Overview

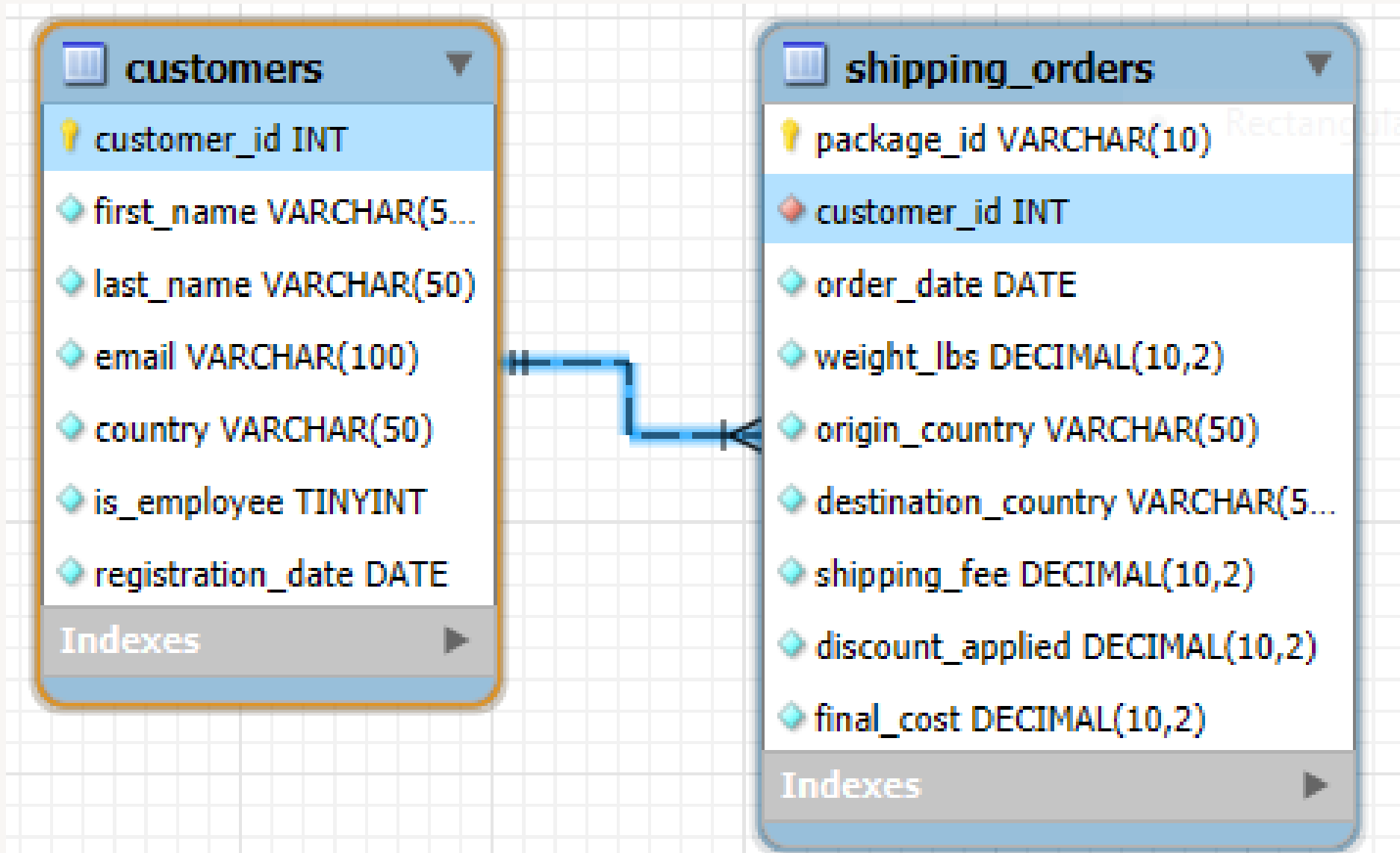
AgeX Shipping Company is a global logistics firm that began its operations in February 2020.

The company's primary business revolves around shipping packages between the USA, Canada, and Nigeria.

This project analyzed AgeX Shipping Data using the collected data on their customers and shipping orders to provide valuable business insights.

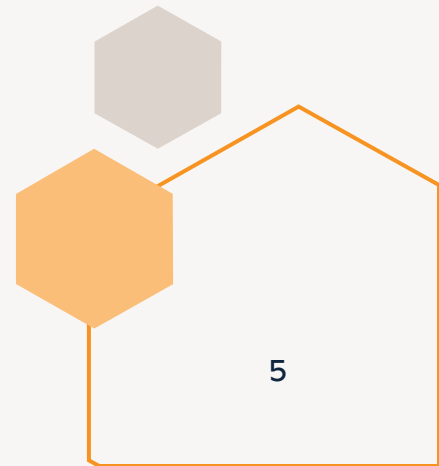


Entity Relationship Diagram(ERD)



1. Total Customers:

Write a query to find the total number of customers registered with AgeX.



/*

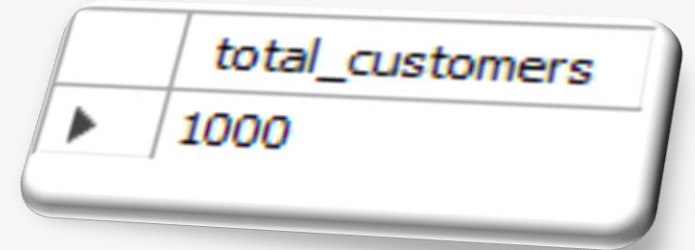
The total number of customers who have registered with AgeX.

*/

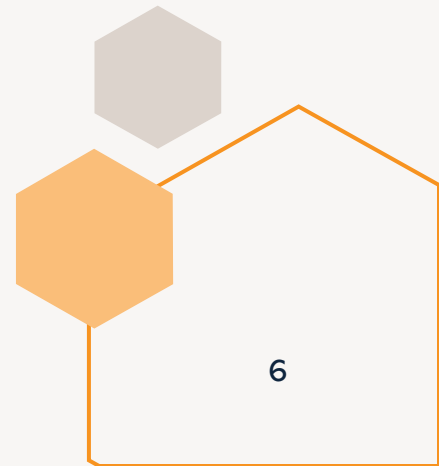
-- SQL query code:

**SELECT count(customer_id) as total_customers
from customers;**

-- Query logic: Aggregate function count with alias.

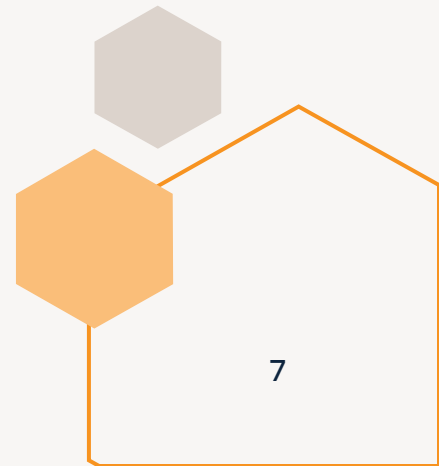


	<i>total_customers</i>
▶	1000



2. Customers Who Have Shipped:

Find the total number of unique customers who have placed at least one shipping order.



/*

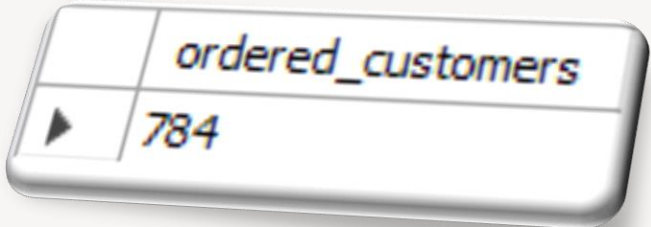
Total unique Customers who have placed at least one shipping order.

*/

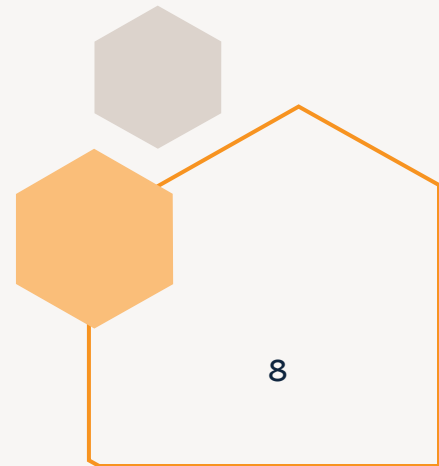
-- SQL query code:

```
SELECT count(distinct(customer_id)) as  
ordered_customers  
from shipping_orders;
```

-- Query logic: Aggregate function distinct count with alias

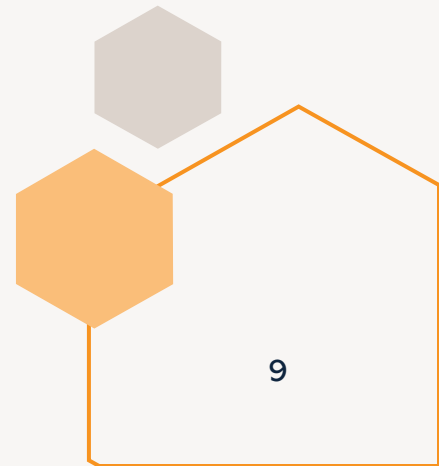


	<i>ordered_customers</i>
▶	784



3. Customers Without Orders:

Find the names of all customers who are registered but have not placed any shipping orders.



```
/*
```

The names of all customers who are registered but have not placed any shipping orders.

```
*/
```

-- SQL query code:

```
select concat(first_name, ' ', last_name) as  
customers_with_no_order  
from customers  
left join shipping_orders  
on shipping_orders.customer_id =  
customers.customer_id  
where shipping_orders.customer_id is null;
```

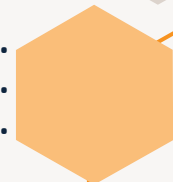
-- Query logic: Concatenation with alias, left join, on, where, and is null clause

	customers_with_no_order
▶	John Robert
	Oluwafemi Ngozi
	Tunde Ikechukwu
	Adebayo Adewale
	Chinedu Adebayo
	Emma Benjamin
	Jane Elizabeth
	Jackson Benjamin
	William Sarah
	Ogunmola Bola
	Chris Sarah
	Matthew Jane
	Ikechukwu Bola

⋮
⋮
⋮

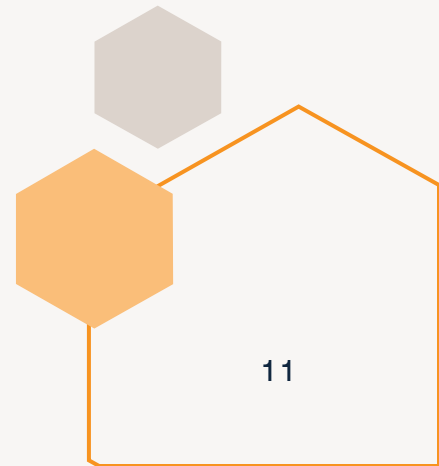


⋮
⋮
⋮



4. Employee Discounts:

Find the total amount of money AgeX has given in discounts to its employees.



/*

The total amount of money AgeX has given in discounts to their employees.

*/

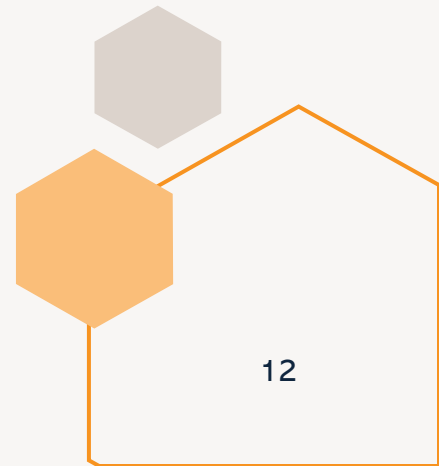
-- SQL query code:

**select sum(discount_applied) as total_discount
from shipping_orders;**

-- Query logic: Summation operator with alias

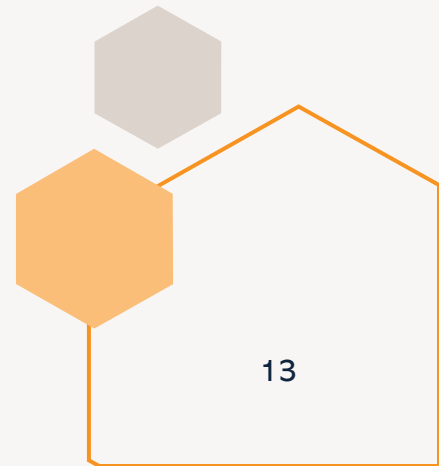


	<i>total_discount</i>
▶	<i>1373.36</i>



5. Customers by Region:

Show the total number of customers located in each country.



```
/*
```

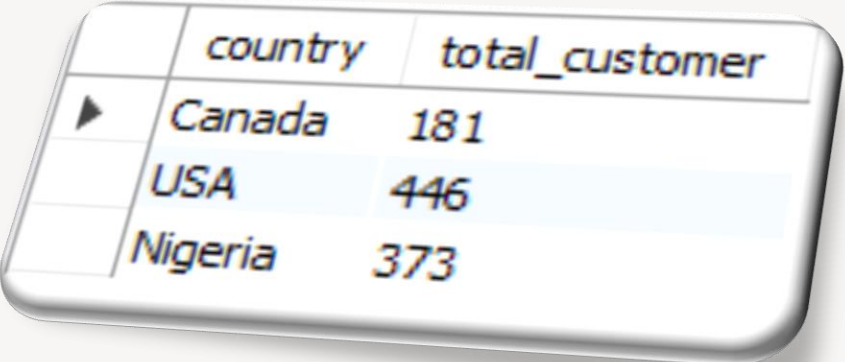
The total number of customers located in each country.

```
*/
```

-- SQL query code:

```
select country, count(customer_id) as  
total_customer  
from customers  
group by country;
```

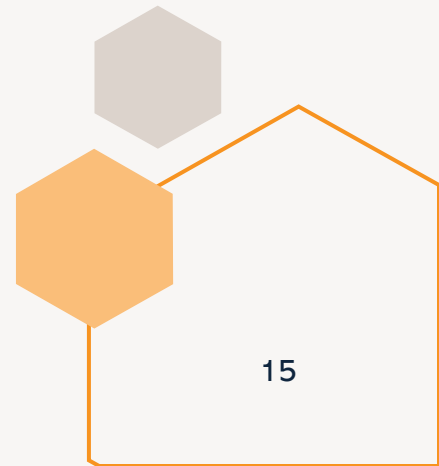
-- Query logic: Aggregate function count with alias and Group by sorting clause.



	country	total_customer
▶	Canada	181
	USA	446
	Nigeria	373

6. Sales by Region:

Calculate the total sales (final cost) generated by shipments originating from each country.



/*

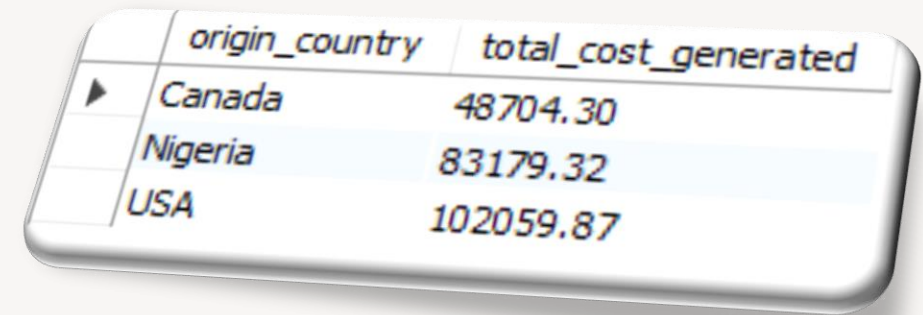
The total sales (final cost) generated by shipments originating from each country.

*/

-- SQL query code:

```
select origin_country, sum(final_cost) as  
total_cost_generated  
from shipping_orders  
group by origin_country;
```

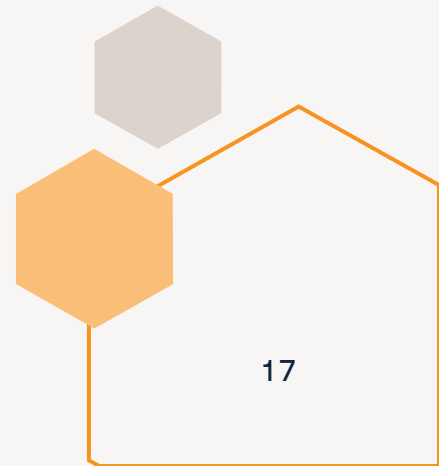
-- Query logic: Summation operation with alias and Group by sorting clause.



origin_country	total_cost_generated
Canada	48704.30
Nigeria	83179.32
USA	102059.87

7. Sales by Destination:

Calculate the total sales for packages shipped to each destination country.



/*

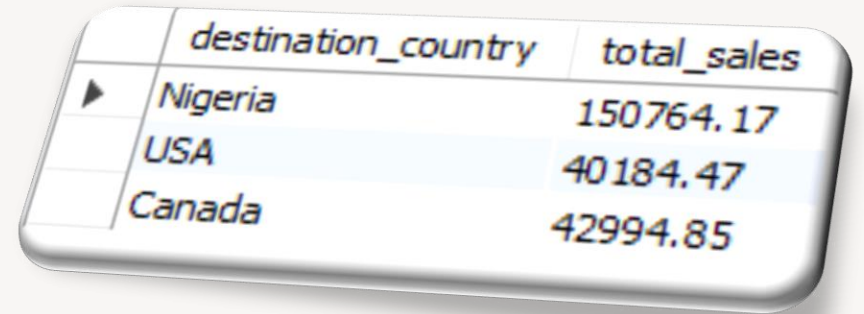
The total sales for packages shipped to each destination country.

*/

-- SQL query code:

```
select destination_country, sum(final_cost) as  
total_sales  
from shipping_orders  
group by destination_country;
```

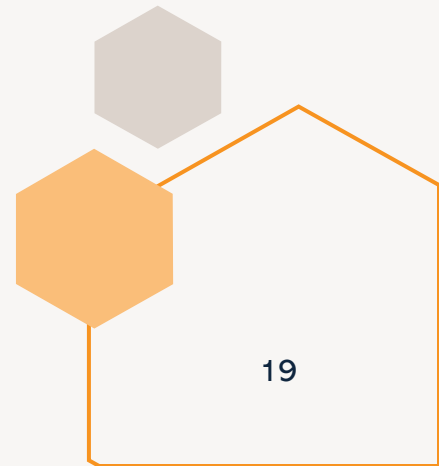
-- Query logic: Summation operation with alias
and Group by sorting clause.



destination_country	total_sales
Nigeria	150764.17
USA	40184.47
Canada	42994.85

8. Sales Over Time:

Find the total sales for each year since the company started.



/*

The total sales for each year since the company started.

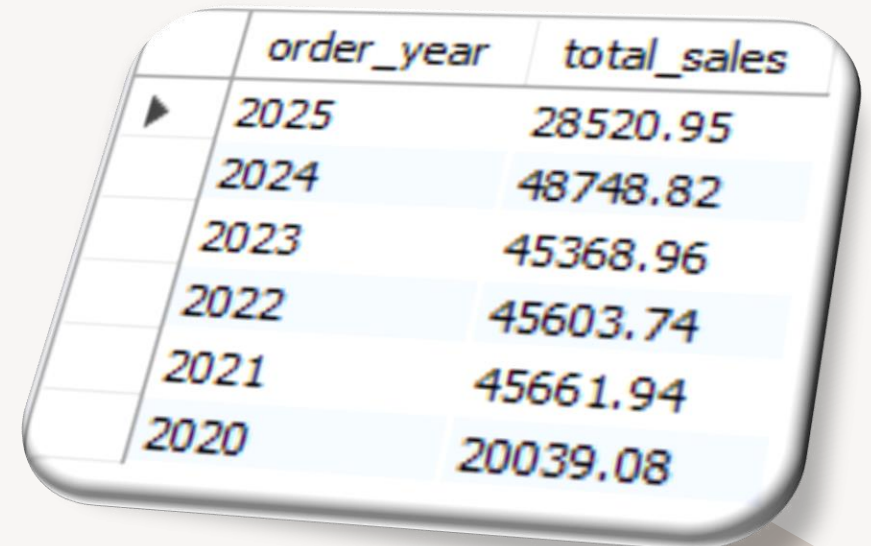
*/

-- SQL query code:

```
select year(order_date) as order_year,  
sum(final_cost) as total_sales  
from shipping_orders  
group by year(order_date)  
order by year(order_date) desc;
```

-- Query logic: Year with alias, summation function with alias, group by and order by (descending) sorting clause.

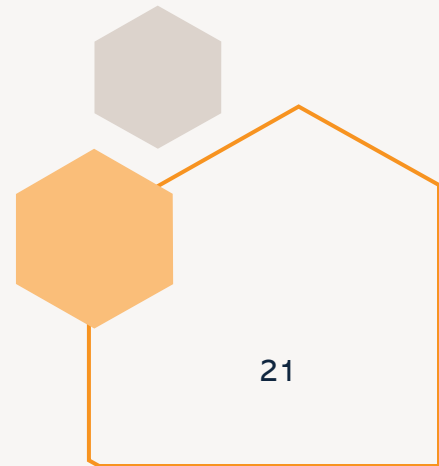
SQL Query and Approach Logic



	order_year	total_sales
▶	2025	28520.95
	2024	48748.82
	2023	45368.96
	2022	45603.74
	2021	45661.94
	2020	20039.08

9. Average Shipping Cost:

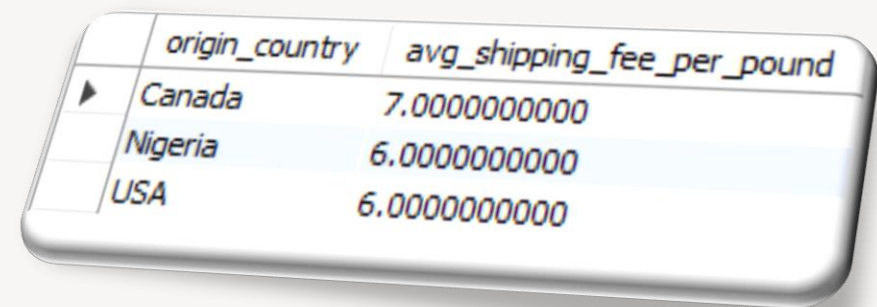
What is the average shipping cost per pound (weight_lbs) for packages from each origin country?



```
/*  
The average shipping cost per pound  
(weight_lbs) for packages from each origin  
country?  
*/  
-- SQL query code:
```

```
select origin_country,  
avg(shipping_fee/weight_lbs) as  
avg_shipping_fee_per_pound  
from shipping_orders  
group by origin_country;
```

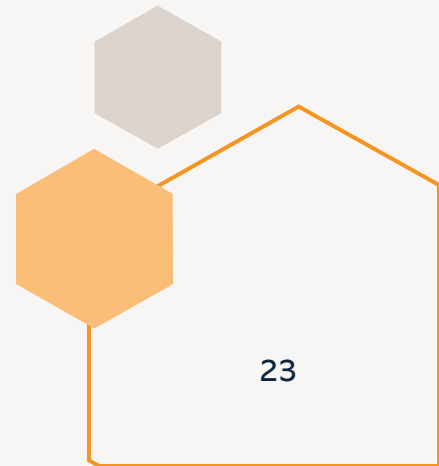
```
-- Query logic: Aggregate function Average  
with alias and group by sorting clause.
```



origin_country	avg_shipping_fee_per_pound
Canada	7.0000000000
Nigeria	6.0000000000
USA	6.0000000000

10. Most Expensive Order:

Find the package_id and the final_cost of the most expensive order in the database.



```
/*
```

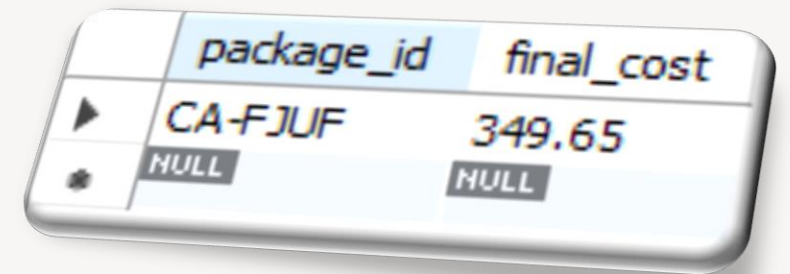
The package_id and the final_cost of the most expensive order in the database.

```
*/
```

-- SQL query code:

```
select package_id, final_cost  
from shipping_orders  
where final_cost = (select max(final_cost)  
from shipping_orders);
```

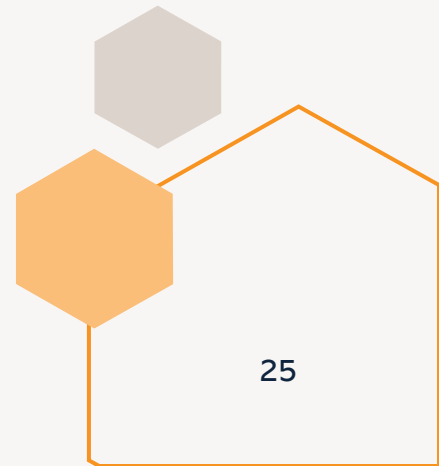
-- Query logic: Where clause and aggregate function maximum



	package_id	final_cost
▶	CA-FJUF	349.65
•	HULL	HULL

11. High-Value Customers:

Find the `customer_id` and the total amount they have spent for all customers who have spent more than \$500 in total. Order the results from the highest spender to the lowest.



```
/*
```

The customer_id and the total amount they have spent for all customers who have spent more than \$500 in total. The results was ordered from the highest spender to the lowest.

```
*/
```

-- SQL query code:

```
select customer_id, sum(final_cost) as total_spent  
from shipping_orders  
group by customer_id  
having sum(final_cost) > 500  
order by total_spent desc;
```

-- Query logic: Summation operator with alias, having clause, group by, and order by (descending) sorting clause.

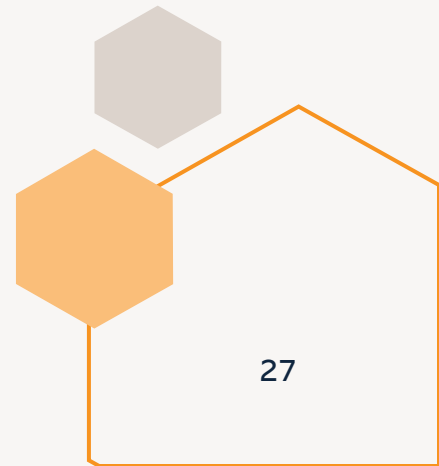
	customer_id	total_spent
▶	302	1110.84
	729	1077.37
	960	1035.66
	157	1029.07
	461	957.53
	696	948.60
	392	940.80



	275	507.65
	814	507.64
	996	505.96
	671	505.47
	418	505.14
	175	504.84
	744	501.62

12. Sales from Specific Region:

What is the total revenue generated from shipments originating in Nigeria and destined for Canada?



/*

The total revenue generated from shipments originating in Nigeria and destined for Canada?

*/

-- SQL query code:

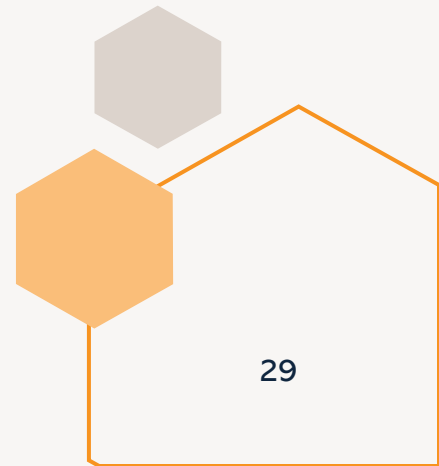
```
select origin_country, destination_country, sum(final_cost) as total_revenue  
from shipping_orders  
where origin_country = 'Nigeria' and destination_country = 'Canada';
```

-- Query logic: Summation operator with alias, where (with and) clause

	origin_country	destination_country	total_revenue
▶	Nigeria	Canada	42994.85

13. Employee's Sales:

Find the total sales generated by employee shipments, but only for orders that weigh more than 30 lbs.



/*

The total sales generated by employee shipments, but only for orders that weigh more than 30 lbs.

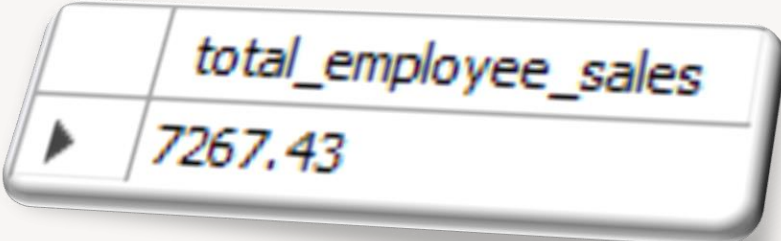
*/

-- SQL query code:

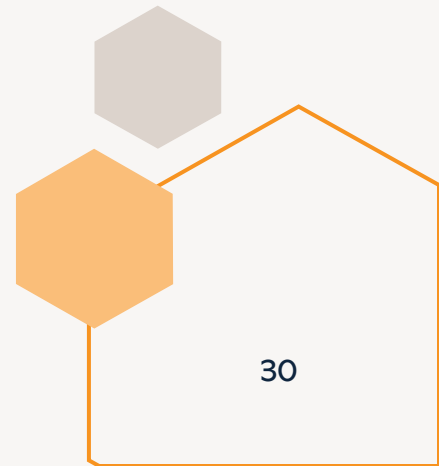
```
select sum(final_cost) as total_employee_sales
from shipping_orders
join customers
on customers.customer_id =
shipping_orders.customer_id
where is_employee = 1 and weight_lbs > 30;
```

-- Query logic: Summation operator with alias, join, on, and where (with and) clause

SQL Query and Approach Logic

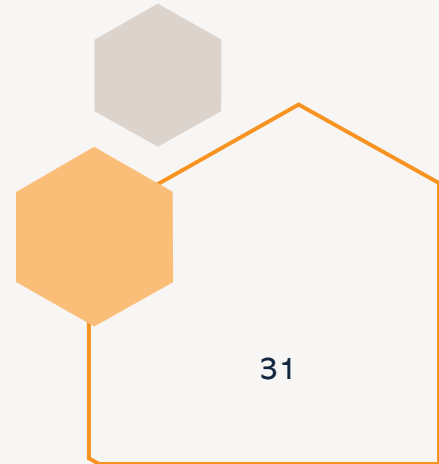


	<i>total_employee_sales</i>
▶	<i>7267.43</i>



14. Popular Routes:

Find the top 3 most popular shipping routes (from origin_country to destination_country) and the number of packages sent on each route.



/*

The top 3 most popular shipping routes (from origin_country to destination_country and the number of packages sent on each route.

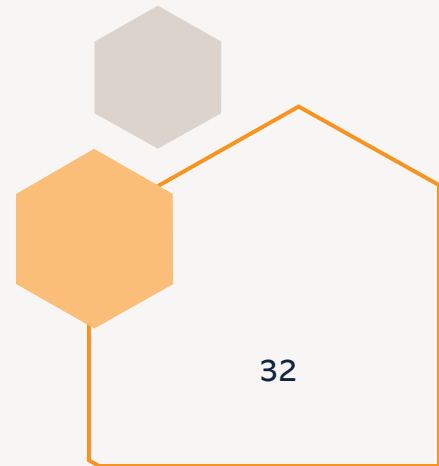
*/

-- SQL query code:

```
select origin_country, destination_country, count(package_id) as total_package
from shipping_orders
group by origin_country, destination_country
order by total_package desc
limit 3;
```

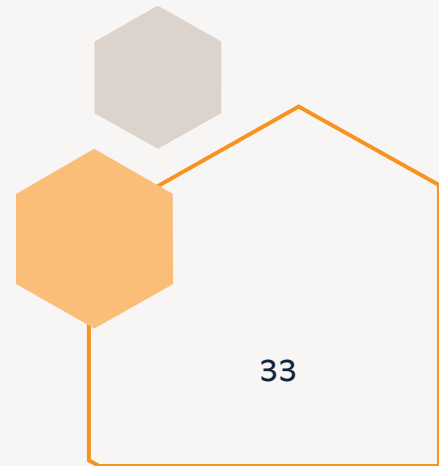
-- Query logic: Aggregate function count with alias, group by, order by with limit (sorting clause)

	origin_country	destination_country	total_package
▶	USA	Nigeria	668
	Nigeria	Canada	284
	Canada	Nigeria	277



15. Customers with Specific Names:

Find all customers whose last name starts with the letter 'O'.



```
/*  
All customers whose last name starts with  
the letter 'O'.  
*/
```

```
-- SQL query code:
```

```
select customer_id, first_name,  
last_name  
from customers  
where last_name like 'o%';
```

```
-- Query logic: where clause with wildcard.
```

	customer_id	first_name	last_name
▶	16	Chinedu	Okafor
	18	Tunde	Okonkwo
	22	Akintola	Oluwafemi
	32	Chinedu	Oluwafemi
	40	Adewale	Oluwafemi
	56	Ogunmola	Okafor
	64	Ikechukwu	Ogunmola
	77	Adebayo	Okonkwo
	89	Liam	Olivia
	105	Okonkwo	Okonkwo
	107	Jide	Okonkwo
	127	Ifunanya	Ogunmola
	131	Tunde	Okafor
	139	Chinedu	Oluwafemi
	148	Jide	Oluwafemi
	150	Okonkwo	Okafor
	155	Nnazi	Ogunmola

16. Package Tracking:

Create a single column that combines the `package_id`, `origin_country`, and `destination_country` into a readable string, for example: Package US-ABCD from USA to Nigeria.

/*

A single column that combines the package_id, origin_country, and destination_country into a readable string, for example: Package US-ABCD from USA to Nigeria

*/

-- SQL query code:

```
select concat('Package', ' ', package_id, ' ', 'was',  
            ' ', 'shipped', ' ', 'from', ' ', origin_country, ' ', 'to',  
            ' ', destination_country)  
        as package_shipment  
from shipping_orders;
```

-- Query logic: Concatenation with alias

	package_shipment
▶	Package CA-04I8 was shipped from Canada to Nigeria
	Package CA-067W was shipped from Canada to Nigeria
	Package CA-071Q was shipped from Canada to Nigeria
	Package CA-0C5O was shipped from Canada to Nigeria
	Package CA-0FLO was shipped from Canada to Nigeria
	Package CA-0LQG was shipped from Canada to Nigeria
	Package CA-0OOQ was shipped from Canada to Nigeria
	Package CA-0PGW was shipped from Canada to Nigeria
	Package CA-0RPM was shipped from Canada to Nigeria

: : : :
: : : :
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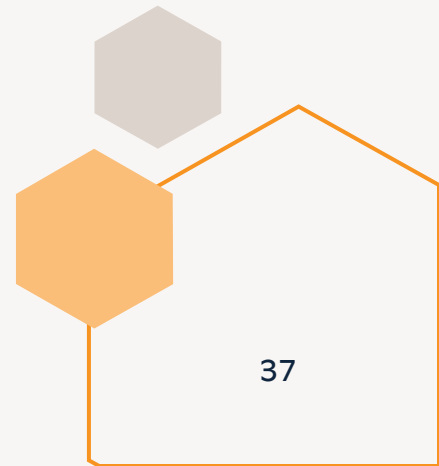
	Package NG-2FSM was shipped from Nigeria to USA
	Package NG-2KYQ was shipped from Nigeria to USA
	Package NG-2L9C was shipped from Nigeria to Canada
	Package NG-2QEW was shipped from Nigeria to USA

: : : :
: : : :
: : : :



17. Top Spenders by Country:

Find the top 5 customers in the USA based on their total spending. Show their full name and the total amount spent.



/*

The top 5 customers in the USA based on their total spending with their respective full name.

*/

-- SQL query code:

```
select country, concat(first_name, ' ', last_name) as full_name,  
sum(final_cost) as total_spent  
from customers  
join shipping_orders  
on customers.customer_id = shipping_orders.customer_id  
where country = 'USA'  
group by customers.customer_id  
order by total_spent desc  
limit 5;
```

-- Query logic: Concatenation with alias, summation operator with alias, join, on, where, group by, order by (descending with limit) sorting clause

country	full_name	total_spe
USA	Michael David	1035.66
USA	Robert Emily	931.32
USA	Michael Chris	861.90
USA	William John	853.08
USA	Robert Ashley	842.88

Results

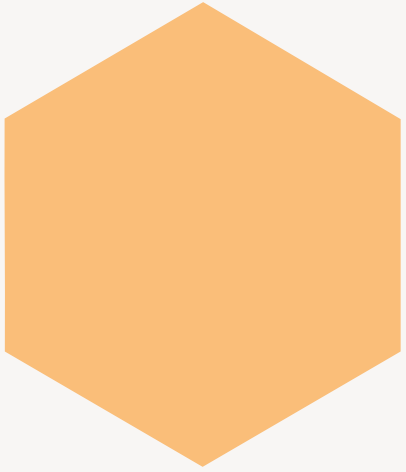


- AgeX Shipping Company has 181 customers in Canada, 446 customers in USA, and 373 in Nigeria which are 1,000 customers in total. 784 customers out of them have placed at least one shipping order while the rest 216 customers have not placed any shipping order.
- They employed 50 customers as their employee with a reward of discounted price, and the total sum of discounted price given to all them so far is amount to (\$)**1,373.36**
- The total amount of sales is (\$)**233,943.49**. Its breakdown is as follow:
- Total sales by Region are (\$)**48,704.30** from Canada, (\$)**83,179.32** from Nigeria, and **102,059.87** from USA.
- Also, their total sales by Destination are (\$)**150,764.17** to Nigeria, (\$)**40,184.47** to USA, (\$)**42,994.85** to Canada.
- According to total sales in each years, they earned (\$)**28,520.95** in 2025, (\$)**48,748.82** in 2024, (\$)**45,368.96** in 2023, (\$)**45,603.74** in 2022, (\$)**45,661.94** in 2021, and (\$)**20,039.08** in 2020.

Results



- The average shipping cost per pound (weight lbs) for packages from Canada is ~(\$7, Nigeria is ~(\$6, and USA is ~(\$6
- The most expensive Package ID ordered is CA-FJUF with amount of (\$349.65
- The top 3 high value customers are as follows: customer with Customer ID - 302 spent (\$1,110.84, Customer ID - 729 spent (\$1,077.37, and Customer ID - 960 spent (\$1,035.66.
- The top 3 most popular shipping routes are shipping from USA to Nigeria with total package of 668, shipping from Nigeria to Canada with total package of 284, and shipping from Canada to Nigeria with total package of 277.
- They have 114 records of customers that their last name start with 'O'.
- The top 5 customers in the USA based on their total spending are Michael David spent (\$1,035.66, Robert Emily spent (\$931.32, Michael Chris spent (\$861.90, William John spent (\$853.08, and Robert Ashley spent (\$842.88



Thank you

