My academic journey at FIU has exposed me to many tools to conduct data analysis. For a project, I utilized SQL queries to analyze a company's database. In this database, I reviewed the schema and structure of the database to derive insight. The database consists of several tables that store different types of information related to the operations of the business. The tables in the schema include: the accounts table (customer accounts information), the orders table (store details about customer orders), the sales_reps table (sales representatives' information), the products table (product information), and the web_events table (web channels related information).

The purpose of this project was to analyze and retrieve information using SQL queries and data analysis techniques. The queries I developed are noted below:

```
SELECT id,account_id,total_amt_usd
FROM orders
ORDER BY account_id, total_amt_usd DESC;

SELECT id,account_id, total_amt_usd
FROM orders
ORDER BY total_amt_usd DESC, account_id;

SELECT*
FROM orders
WHERE gloss_amt_usd >= 1000
LIMIT 5;

SELECT*
FROM orders
WHERE total_amt_usd <500
ORDER BY total_amt_usd DESC
LIMIT 10;

SELECT name, website,primary_poc
```

```
FROM accounts


SELECT name, website,primary_poc
FROM accounts
WHERE name='Exxon Mobil';


SELECT id, account_id, standard_amt_usd/standard_qty AS unit_price
FROM orders
LIMIT 10;


SELECT id, account_id, (poster_amt_usd/total_amt_usd) *100 AS
percentage_of_revenue_from_poster_paper
FROM orders
LIMIT 10;


SELECT*
FROM accounts
WHERE name LIKE 'C%' ;


SELECT*
FROM accounts
WHERE name LIKE '%one%' ;


SELECT*
FROM accounts
WHERE name LIKE '%s' ;
```

```
SELECT name, primary_poc, sales_rep_id
FROM accounts
WHERE name IN ('Walmart','Target','Nordstrom');


SELECT*
FROM web_events
WHERE channel IN ('organic','adwords');


SELECT name,primary_poc,sales_rep_id
FROM accounts
WHERE name NOT IN ('Walmart', 'Target','Nordstrom');


SELECT*
FROM web_events
WHERE channel NOT IN ('organic','adwords');

SELECT*
FROM accounts
WHERE name NOT LIKE 'C%' ;


SELECT*
FROM accounts
WHERE name NOT LIKE '%one%' ;
```

```
SELECT*
FROM accounts
WHERE name NOT LIKE '%S' ;
```

```
SELECT*
FROM orders
WHERE standard_qty >1000 AND poster_qty=0 AND gloss_qty=0 ;
```

```
SELECT*
FROM accounts
WHERE name not like 'C%' and name not like '%S' ;
```

```
SELECT occurred_at, gloss_qty
FROM orders
WHERE gloss_qty Between 24 and 29 ;
```

```
SELECT *
FROM web_events
WHERE channel IN ('organic', 'adwords') AND occurred_at BETWEEN '2016-01-01' AND
'2017-01-01'
ORDER BY occurred_at DESC;
```

```
SELECT id
FROM orders
```

```
WHERE gloss_qty >4000 OR poster_qty>4000;



SELECT*
FROM orders
WHERE standard_qty=0 AND (gloss_qty>1000 OR poster_qty>1000) ;

SELECT *
FROM accounts
WHERE (name LIKE 'C%' OR name LIKE 'W%')
        AND ((primary_poc LIKE '%ana%' OR primary_poc LIKE '%Ana%')
        AND primary_poc NOT LIKE '%eana%');

SELECT*
FROM accounts
JOIN orders
ON accounts.id=orders.id ;



SELECT orders.standard_qty, orders.gloss_qty, orders.poster_qty, accounts.website,
accounts.primary_poc
FROM orders
JOIN accounts
ON orders.account_id=accounts.id ;



SELECT web_events.occurred_at, web_events.channel, accounts.name, accounts.primary_poc
FROM web_events
JOIN accounts
```

```
ON web_events.account_id =accounts.id
WHERE accounts.name='Walmart' ;


SELECT r.name region,s.name, a.name accounts
FROM region r
JOIN sales_reps s
ON s.region_id=r.id
JOIN accounts a
ON s.id=a.sales_rep_id
ORDER BY s.name ;


SELECT region.name,accounts.name, orders.total_amt_usd/orders.total AS orders.unit_price
FROM region
JOIN orders
ON


SELECT r.name region, s.name rep, a.name account
FROM sales_reps s
JOIN region r
ON s.region_id = r.id
JOIN accounts a
ON a.sales_rep_id = s.id
WHERE r.name = 'Midwest'
ORDER BY a.name;
```

```
SELECT r.name region,s.name rep, a.name account
FROM region r
JOIN sales_reps s
ON s.region_id= r.id
JOIN accounts a
ON s.id=a.sales_rep_id
WHERE r.name='Midwest' AND s.name like 'S%'
ORDER BY a.name;

SELECT r.name region,s.name rep, a.name account
FROM region r
JOIN sales_reps s
ON s.region_id= r.id
JOIN accounts a
ON s.id=a.sales_rep_id
WHERE r.name='Midwest' AND s.name like '% K%'
ORDER BY a.name ;

SELECT r.name Region, a.name Account, o.total_amt_usd/(o.total+0.01) Unit_price
FROM region r
JOIN sales_reps s
ON s.region_id= r.id
JOIN accounts a
ON s.id=a.sales_rep_id
JOIN orders o
ON a.id=o.account_id
WHERE o.standard_qty >100;
```

```
SELECT r.name Region, a.name Account, o.total_amt_usd/(o.total+0.01) Unit_price
FROM region r
JOIN sales_reps s
ON s.region_id= r.id
JOIN accounts a
ON s.id=a.sales_rep_id
JOIN orders o
ON a.id=o.account_id
WHERE o.standard_qty >100 AND o.poster_qty>50
ORDER BY Unit_price ASC ;
```

```
SELECT r.name Region, a.name Account, o.total_amt_usd/(o.total+0.01) Unit_price
FROM region r
JOIN sales_reps s
ON s.region_id= r.id
JOIN accounts a
ON s.id=a.sales_rep_id
JOIN orders o
ON a.id=o.account_id
WHERE o.standard_qty >100 AND o.poster_qty>50
ORDER BY Unit_price DESC ;
```

```
SELECT DISTINCT accounts.name,web_events.channel, web_events.account_id
FROM accounts
JOIN web_events
ON web_events.account_id=accounts.id
WHERE web_events.account_id=1001;


SELECT SUM(poster_qty) as Poster,
SUM(standard_qty) as Standard,
SUM (total_amt_usd) as Amt_usd
FROM orders ;

SELECT SUM(standard_amt_usd)/SUM(standard_qty) as Unit_Cost
FROM orders ;

SELECT MIN(occurred_at)
FROM orders ;

SELECT (occurred_at)
FROM Orders
ORDER BY occurred_at ASC
Limit 1;


SELECT MAX (occurred_at)
FROM web_events ;
```

```
SELECT (occurred_at)
FROM web_events
ORDER BY occurred_at DESC
LIMIT 1 ;


SELECT AVG(standard_qty) mean_standard, AVG(gloss_qty) mean_gloss, AVG(poster_qty)
mean_poster, AVG(standard_amt_usd) mean_standard_usd,AVG(gloss_amt_usd)
mean_gloss_usd, AVG(poster_amt_usd) mean_poster_usd
FROM orders;


SELECT *
FROM (SELECT total_amt_usd
      FROM orders
      ORDER BY total_amt_usd
      LIMIT 3457) AS Table1
ORDER BY total_amt_usd DESC
LIMIT 2;



SELECT a.name, MIN (o.occurred_at)
FROM accounts a
JOIN orders o
ON a.id=o.account_id
GROUP BY a.name
LIMIT 1;
```

```
Select sum(o.total_amt_usd) Total_Sales,a.name
FROM orders o
JOIN accounts a
ON o.account_id=a.id
GROUP BY a.name;


SELECT w.occurred_at, w.channel, a.name
FROM web_events w
JOIN accounts a
ON w.account_id = a.id
ORDER BY w.occurred_at DESC
LIMIT 1;


SELECT Count (channel), channel
FROM web_events
GROUP BY channel;

SELECT a.primary_poc,MIN(w.occurred_at)
FROM accounts a
JOIN web_events w
ON a.id=w.account_id
GROUP BY a.primary_poc
LIMIT 1;
```

```
SELECT a.primary_poc,w.occurred_at
FROM accounts a
JOIN web_events w
ON a.id=w.account_id
ORDER BY w.occurred_at
LIMIT 1 ;


SELECT a.name,o.total_amt_usd
FROM accounts a
JOIN orders o
ON a.id=o.account_id
ORDER BY o.total_amt_usd ASC ;

SELECT r.name, COUNT(*) num_reps
FROM region r
JOIN sales_reps s
ON r.id = s.region_id
GROUP BY r.name
ORDER BY num_reps;


SELECT a.name, AVG(o.standard_qty) standard_qty, AVG(o.gloss_qty)
gloss_qty,AVG(o.poster_qty) poster_qty
FROM accounts a
JOIN orders o
ON a.id=o.account_id
GROUP By a.name ;
```

```
SELECT s.name, w.channel, COUNT(w.occurred_at) Number_of_occurrences
FROM sales_reps s
JOIN accounts a
ON s.id=a.sales_rep_id
JOIN web_events w
ON w.account_id=a.id
GROUP BY s.name,w.channel
ORDER BY COUNT(w.occurred_at) DESC ;

SELECT DISTINCT a.name,r.name region_name
FROM accounts a
JOIN sales_reps s
ON a.sales_rep_id=s.id
JOIN region r
ON s.region_id=r.id ;

SELECT a.id, COUNT (a.name), s.name sales_rep
FROM accounts a
JOIN sales_reps s
ON s.id=a.sales_rep_id
GROUP BY a.id,a.name,s.name
HAVING COUNT (a.name)>5 ;
```

```
SELECT s.id, s.name, COUNT (*) num_of_accounts
FROM accounts a
JOIN sales_reps s
ON s.id=a.sales_rep_id
GROUP BY s.id,s.name
HAVING COUNT (*) >5
ORDER BY num_of_accounts DESC;
```

```
SELECT COUNT(*)orders, DATE_PART('year',occurred_at)
FROM orders
GROUP BY 2
ORDER By 1 DESC ;
```

```
SELECT COUNT(*)orders, DATE_PART('month',occurred_at)
FROM orders
GROUP BY 2
ORDER By 1 DESC ;
```

```
SELECT SUM(o.gloss_amt_usd), DATE_PART('month',o.occurred_at) months,
DATE_PART('year',o.occurred_at), a.name
FROM orders o
JOIN accounts a
ON o.account_id=a.id
WHERE name='Walmart'
GROUP BY 2, 3, 4
ORDER By 1 DESC ;
```

```
SELECT s.name sales_rep, r.name region_name,o.total_amt_usd
FROM sales_reps s
JOIN region r
ON s.region_id=r.id
JOIN accounts a
ON a.sales_rep_id=s.id
JOIN orders o
ON o.account_id=a.id
ORDER BY total_amt_usd DESC ;

SELECT COUNT(region_name) as count_region
FROM
(SELECT s.name sales_rep, r.name region_name, SUM(o.total_amt_usd)
FROM sales_reps s
JOIN region r
ON s.region_id=r.id
JOIN accounts a
ON a.sales_rep_id=s.id
JOIN orders o
ON o.account_id=a.id
GROUP BY 1,2
ORDER BY 3 DESC) sub
WHERE region_name='Southeast' ;
```