

1. Set Operations:

```
```sql
```

```
-- UNION: Combine results from two SELECT queries, removing duplicates
```

```
SELECT first_name FROM Employees
```

```
UNION
```

```
SELECT first_name FROM Contractors;
```

```
-- INTERSECT: Retrieve common results from two SELECT queries
```

```
SELECT department_name FROM FullTimeEmployees
```

```
INTERSECT
```

```
SELECT department_name FROM PartTimeEmployees;
```

```
-- EXCEPT: Get results from the first SELECT query that are not in the second query
```

```
SELECT product_name FROM Products
```

```
EXCEPT
```

```
SELECT product_name FROM DiscontinuedProducts;
```

```
```
```

2. String Operations:

```
```sql
```

```
-- CONCAT: Concatenate first name and last name with a space in between
```

```
SELECT CONCAT(first_name, ' ', last_name) AS full_name FROM Customers;
```

```
-- SUBSTRING: Retrieve a portion of a string
```

```
SELECT SUBSTRING(product_name, 1, 10) AS short_name FROM Products;
```

```
-- UPPER and LOWER: Convert text to uppercase or lowercase
```

```
SELECT UPPER(product_name) AS uppercase_name FROM Products;
```

```
```
```

3. Aggregate Functions:

```
```sql
```

```
-- COUNT: Count the number of orders for each customer
```

```
SELECT customer_id, COUNT(order_id) AS order_count
```

```
FROM Orders
```

```
GROUP BY customer_id;
```

```
-- SUM: Calculate the total revenue from all orders
```

```
SELECT SUM(order_total) AS total_revenue FROM Orders;
```

```
-- AVG: Calculate the average salary of employees in each department
```

```
SELECT department_id, AVG(salary) AS avg_salary
```

```
FROM Employees
```

```
GROUP BY department_id;
```

```
-- MAX and MIN: Find the highest and lowest product prices
```

```
SELECT MAX(price) AS highest_price, MIN(price) AS lowest_price
```

```
FROM Products;
```

```
```
```