

# SQL Server Cheat Sheet

## 1. Selecting Data

- Select all columns:

```
SELECT * FROM TableName;
```

- Select specific columns:

```
SELECT Column1, Column2 FROM TableName;
```

## 2. Filtering Data

- Using WHERE:

```
SELECT * FROM TableName WHERE Condition;
```

- Comparison operators:

=, !=, <>, >, <, >=, <=, BETWEEN, LIKE, IN, NOT IN

## 3. Sorting Data

- ORDER BY:

```
SELECT * FROM TableName ORDER BY Column1 ASC, Column2 DESC;
```

## 4. Limiting Results

- TOP:

```
SELECT TOP 10 * FROM TableName;
```

## 5. Joining Tables

- Inner Join:

```
SELECT * FROM Table1 INNER JOIN Table2 ON Table1.Column = Table2.Column;
```

- Left Join:

```
SELECT * FROM Table1 LEFT JOIN Table2 ON Table1.Column = Table2.Column;
```

- Right Join:

```
SELECT * FROM Table1 RIGHT JOIN Table2 ON Table1.Column = Table2.Column;
```

- Full Outer Join:

```
SELECT * FROM Table1 FULL OUTER JOIN Table2 ON Table1.Column = Table2.Column;
```

## 6. Grouping Data

- GROUP BY:

```
SELECT Column1, COUNT(*) FROM TableName GROUP BY Column1;
```

- HAVING:

```
SELECT Column1, COUNT(*) FROM TableName GROUP BY Column1 HAVING COUNT(*) > 1;
```

## 7. Aggregate Functions

- Common aggregate functions:

```
SELECT COUNT(*), SUM(Column), AVG(Column), MAX(Column), MIN(Column) FROM  
TableName;
```

## 8. Inserting Data

- Insert a single row:

```
INSERT INTO TableName (Column1, Column2) VALUES (Value1, Value2);
```

- Insert multiple rows:

```
INSERT INTO TableName (Column1, Column2) VALUES (Value1, Value2), (Value3, Value4);
```

## 9. Updating Data

- Update rows:

UPDATE TableName SET Column1 = Value1, Column2 = Value2 WHERE Condition;

## 10. Deleting Data

- Delete rows:

DELETE FROM TableName WHERE Condition;

## 11. Creating Tables

- Create a new table:

```
CREATE TABLE TableName (  
    Column1 DataType Constraint,  
    Column2 DataType Constraint,  
    ...  
);
```

## 12. Modifying Tables

- Add a column:

ALTER TABLE TableName ADD ColumnName DataType;

- Drop a column:

ALTER TABLE TableName DROP COLUMN ColumnName;

- Change column data type:

ALTER TABLE TableName ALTER COLUMN ColumnName NewDataType;

## 13. Dropping Tables

- Drop a table:

DROP TABLE TableName;

## 14. Indexes

- Create an index:

```
CREATE INDEX IndexName ON TableName (Column1, Column2);
```

- Drop an index:

```
DROP INDEX IndexName;
```

## 15. Views

- Create a view:

```
CREATE VIEW ViewName AS SELECT Column1, Column2 FROM TableName WHERE  
Condition;
```

- Drop a view:

```
DROP VIEW ViewName;
```

## 16. Additional Notes

- Date and Time Functions:

```
SELECT CURRENT_DATE, CURRENT_TIME, CURRENT_TIMESTAMP;
```

- String Functions:

```
SELECT LENGTH(Column), SUBSTRING(Column, Start, Length), REPLACE(Column, 'old', 'new'),  
LOWER(Column), UPPER(Column);
```