

SQL Cheatsheet

Unique Features

- Declarative language for managing relational databases
- Used to create, modify, and query databases
- Supports ACID transactions for data consistency
- Standardized language with multiple dialects

Data Types

- Integer: `INT`
- Decimal: `DECIMAL`
- Character: `CHAR`
- Varying character: `VARCHAR`
- Date: `DATE`
- Time: `TIME`
- Timestamp: `TIMESTAMP`
- Boolean: `BOOLEAN`

Creating Tables

```
CREATE TABLE [table name] (  
    [column name] [data type] [optional parameters],  
    [column name] [data type] [optional parameters],  
    ...  
);
```

Inserting Data

```
INSERT INTO [table name] ([column name], [column name], ...)  
VALUES ([value], [value], ...);
```

Updating Data

```
UPDATE [table name]  
SET [column name] = [new value], [column name] = [new value], ...  
WHERE [condition];
```

Deleting Data

```
DELETE FROM [table name] WHERE [condition];
```

Querying Data

```
SELECT [column name], [column name], ...  
FROM [table name]  
WHERE [condition]  
ORDER BY [column name] [ASC/DESC];
```

Joins

```
SELECT [column name], [column name], ...  
FROM [table name 1]  
JOIN [table name 2]  
ON [table name 1].[column name] = [table name 2].[column name];
```

Aggregation

```
SELECT COUNT([column name])  
FROM [table name];  
  
SELECT AVG([column name])  
FROM [table name];  
  
SELECT SUM([column name])  
FROM [table name];
```

Functions

```
MAX([column name])  
  
MIN([column name])  
  
UPPER([string])  
  
LOWER([string])  
  
SUBSTR([string], [start], [length])
```

Resources

- [SQL Tutorial](#)
- [PostgreSQL Documentation](#)
- [MySQL Documentation](#)