

Introduction to SQL: Takeaways

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Syntax

- Returning first 10 rows from a table:

```
SELECT *  
FROM recent_grads  
LIMIT 10;
```

- Filtering return results:

```
SELECT Major, ShareWomen  
FROM recent_grads  
WHERE ShareWomen < 0.5;
```

- Filtering results using multiple criteria:

```
SELECT Major, Major_category, Median, ShareWomen  
FROM recent_grads  
WHERE ShareWomen > 0.5 AND Median > 50000;
```

- Filtering results using the OR clause:

```
SELECT Major, Median, Unemployed  
FROM recent_grads  
WHERE Median >= 10000 OR Unemployed <= 1000  
LIMIT 20;
```

- Grouping using AND and OR with parentheses:

```
SELECT Major, Major_category, ShareWomen, Unemployment_rate  
FROM recent_grads  
WHERE (Major_category = 'Engineering') AND (ShareWomen > 0.5 OR Unemployment_rate < 0.051);
```

- Sorting results:

```
SELECT Major, ShareWomen, Unemployment_rate  
FROM recent_grads  
WHERE ShareWomen > 0.3 AND Unemployment_rate < 0.1  
ORDER BY ShareWomen DESC;
```

Concepts

- A database is a data representation that lives on disk, and can be queried, accessed, and updated without using much memory.
- A database management system (DBMS) can be used to interact with a database. Examples include Postgres and SQLite. SQLite is the most popular database in the world and is lightweight enough that the SQLite DBMS is included as a module in Python.
- To work with data stored in a database, we instead use a language called SQL (or structured query language).

Resources

- [W3 Schools](#)
- [SQL Zoo](#)

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