## Introduction to SQL: Takeaways 🖻

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## **Syntax**

• Returning first 10 rows from a table:

```
FROM recent_grads
LIMIT 10;
```

• Filtering return results:

```
SELECT Major, Sharwomen
FROM recent_grads
WHERE ShareWomen < 0.5;</pre>
```

• 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);</pre>
```

• 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. Examplees include Postgres and SQLite. SQLitte 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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