Basic SQLite Queries

Let's learn SQL Queries in Python

WE'LL COVER THE FOLLOWING

- Wrapping Up

Queries in SQLite are pretty much the same as what you'd use for other databases, such as MySQL or Postgres. You just use normal SQL syntax to run the queries and then have the cursor object execute the SQL. Here are a few examples:

```
import sqlite3

conn = sqlite3.connect("mydatabase.db")
#conn.row_factory = sqlite3.Row
cursor = conn.cursor()

sql = "SELECT * FROM albums WHERE artist=?"
cursor.execute(sql, [("Red")])
print(cursor.fetchall())  # or use fetchone()

print("\nHere's a listing of all the records in the table:\n")
for row in cursor.execute("SELECT rowid, * FROM albums ORDER BY artist"):
    print(row)

print("\nResults from a LIKE query:\n")
sql = """
SELECT * FROM albums
WHERE title LIKE 'The%'"""
cursor.execute(sql)
print(cursor.fetchall())
```

The first query we execute is a **SELECT *** which means that we want to select all the records that match the artist name we pass in, which in this case is "Red". Next we execute the SQL and use **fetchall()** to return all the results. You can also use **fetchone()** to grab the first result. You'll also notice that

there's a commented out section related to a mysterious **row_factory**. If you

un-comment that line, the results will be returned as Row objects that are kind of like Python dictionaries and give you access to the row's fields just like a dictionary. However, you cannot do item assignment with a Row object.

The second query is much like the first, but it returns every record in the database and orders the results by the artist name in ascending order. This also demonstrates how we can loop over the results. The last query shows how to use SQL's LIKE command to search for partial phrases. In this case, we do a search of the entire table for titles that start with "The". The percent sign (%) is a wildcard operator.

Wrapping Up

Now you know how to use Python to create a SQLite database. You can also create, update and delete records as well as run queries against your database.