

```
In [ ]: import sqlite3
import pandas as pd
import uuid

connection = sqlite3.connect('books.db')
```

```
In [ ]: query_a = """
        SELECT last
        FROM authors
        ORDER BY last DESC
        """

result_a = pd.read_sql(query_a, connection)
print(result_a)

    last
0      Wald
1      Quirk
2        Doe
3        Doe
4        Doe
5        Doe
6        Doe
7        Doe
8        Doe
9        Doe
10       Doe
11       Doe
12       Doe
13       Doe
14  Deitel
15  Deitel
16  Deitel

b) # Query to select book titles in ascending order
```

```
In [ ]: query_b = """
        SELECT title
        FROM titles
        ORDER BY title ASC
        """

result_b = pd.read_sql(query_b, connection)
print(result_b)

    title
0      Android 6 for Programmers
1      Android How to Program
2          C How to Program
3      C++ How to Program
4  Internet & WWW How to Program
5  Intro to Python for CS and DS
6      Java How to Program
7      New Book Title
8      New Book Title
9      New Book Title
10     New Book Title
11     New Book Title
12     New Book Title
13     New Book Title
14  Visual Basic 2012 How to Program
15     Visual C# How to Program
16     Visual C++ How to Program
```

c) Use an INNER JOIN to select all the books for a specific author. Include the title, copyright year, and ISBN. Order the information alphabetically by title:

```
In [ ]: author_id = 1

query_c = f"""
        SELECT titles.title, titles.copyright, author_ISBN.isbn
        FROM titles
        INNER JOIN author_ISBN ON titles.isbn = author_ISBN.isbn
        WHERE author_ISBN.id = {author_id}
        ORDER BY titles.title ASC
        """

result_c = pd.read_sql(query_c, connection)
print(result_c)

    title copyright      isbn
0      Android 6 for Programmers      2016      0134289366
1      Android How to Program      2017      0134444302
2          C How to Program      2016      0133976890
3      C++ How to Program      2017      0134448235
4  Internet & WWW How to Program      2012      0132151006
5  Intro to Python for CS and DS      2020      0135404673
6      Java How to Program      2018      0134743350
7      New Book Title      2023
8      New Book Title      2023      author_ISBN
9      New Book Title      2023      authors_ISBN
10     New Book Title      2023      authors_id
11     New Book Title      2023      c1c37c51-0d44
12     New Book Title      2023      f61fd787-a13c
13     New Book Title      2023      unique_isbn_here
14  Visual Basic 2012 How to Program      2014      0133406954
15     Visual C# How to Program      2017      0134601548
16     Visual C++ How to Program      2008      0136151574
```

d) Insert a new author into the authors table:

```
In [ ]: query_d = """
        INSERT INTO authors (first, last)
        VALUES ('John', 'Doe')
        """

connection.execute(query_d)
connection.commit()
print("Inserts complete")

Inserts complete
```

e) Insert a new title for an author:

```
In [ ]: author_id = 1
isbn = str(uuid.uuid4())[:13]

query_e = f"""
        INSERT INTO titles (isbn, title, edition, copyright)
        VALUES ('{isbn}', 'New Book Title', '1st Edition', '2023')
        """

connection.execute(query_e)
connection.commit()

query_e_author_isbn = f"""
        INSERT INTO author_ISBN (id, isbn)
        VALUES ({author_id}, '{isbn}')
        """

connection.execute(query_e_author_isbn)
connection.commit()

print("Inserts complete")

Inserts complete
```

```
In [ ]:
```