NOSQL PART 1

project 1

Jade Acevedo

Book_Code	Book_Title	Publisher	Author
22	Stranger	Vintage	Camus
13	Dreamcatcher	Scribner	King
18	Beloved	Plume	Morrison
37	Nine	LB Books	Salinger
57	Catch 22	Scribner	Heller
61	Jazz	Plume	Morrison
69	Franny	LB Books	Salinger
75	Fall	Vintage	Camus
96	Grapes	Penguin	Morrison
98	Catcher	LB Books	Salinger

- ❖ **Normalized Tables:**

  - o **Authors Table**:

    - ▪ AuthorName(Primary Key)

  - o **Publishers Table**:

    - ▪ PublisherName (Primary Key)

  - o **Books Table**:

    - ▪ Bookcode(Primary Key)

    - ▪ BookTitle

    - ▪ Publishername (Foreign Key referencing Publishers)
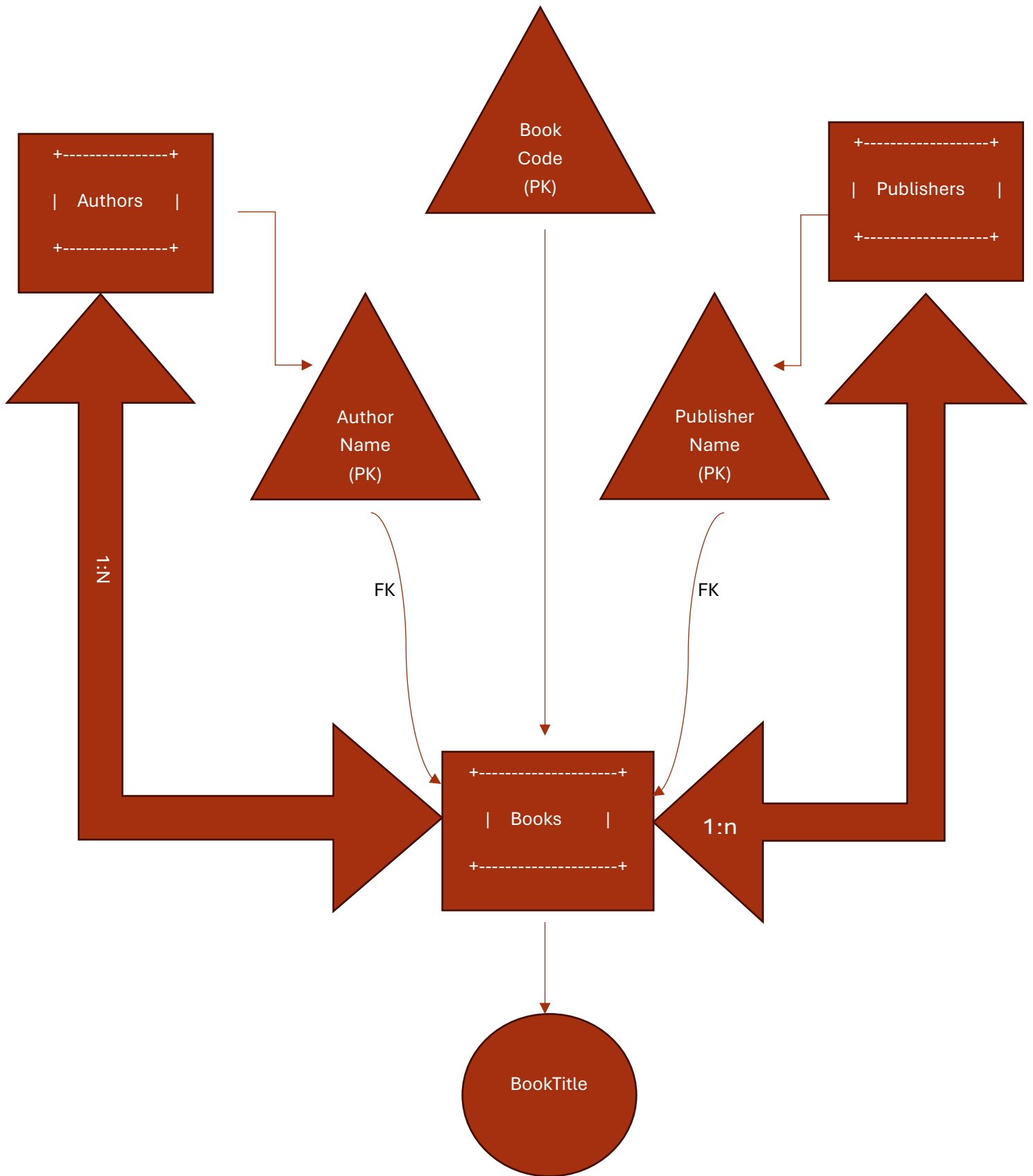
    - ▪ Authorname (Foreign Key referencing Authors)
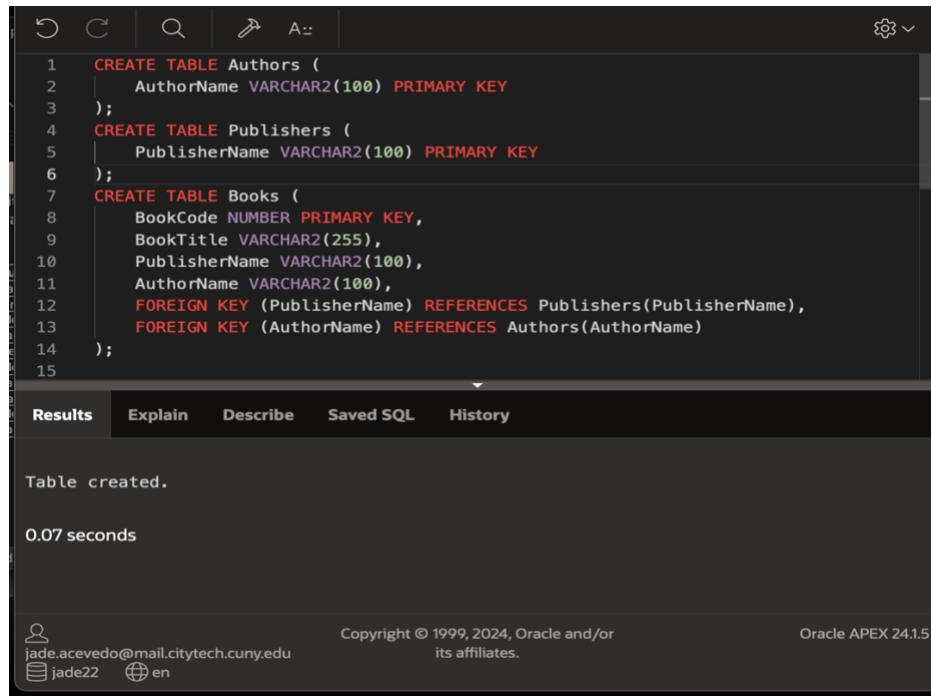
Relationships

1. **Books ↔ Authors**

   - o One-to-Many: One author can write many books.

2. **Books ↔ Publishers**

   - o One-to-Many: One publisher can publish many books.

```
                        /\
                       /  \
                      / Book \
                     / Code  \
                    /  (PK)   \
                   /_____\

+----------------+                              +------------------+
| Authors     |                              |  Publishers  |
+----------------+                              +------------------+

         /\                    /\
        /  \                  /  \
       / Author \            / Publisher \
      / Name    \          / Name      \
     /  (PK)    \        /  (PK)     \
    /_____\      /_____\

  1:N        FK                    FK

              +-------------------+
              |   Books      |
              +-------------------+         1:n

                    BookTitle
```

Authors

Publishers

Book
Code
(PK)

Author
Name
(PK)

Publisher
Name
(PK)

1:N

FK

FK

| Books |

1:n

BookTitle

1. Use SQL code to create the tables you identified in the EER diagram

```
1   CREATE TABLE Authors (
2       AuthorName VARCHAR2(100) PRIMARY KEY
3   );
4   CREATE TABLE Publishers (
5       PublisherName VARCHAR2(100) PRIMARY KEY
6   );
7   CREATE TABLE Books (
8       BookCode NUMBER PRIMARY KEY,
9       BookTitle VARCHAR2(255),
10      PublisherName VARCHAR2(100),
11      AuthorName VARCHAR2(100),
12      FOREIGN KEY (PublisherName) REFERENCES Publishers(PublisherName),
13      FOREIGN KEY (AuthorName) REFERENCES Authors(AuthorName)
14  );
15
```
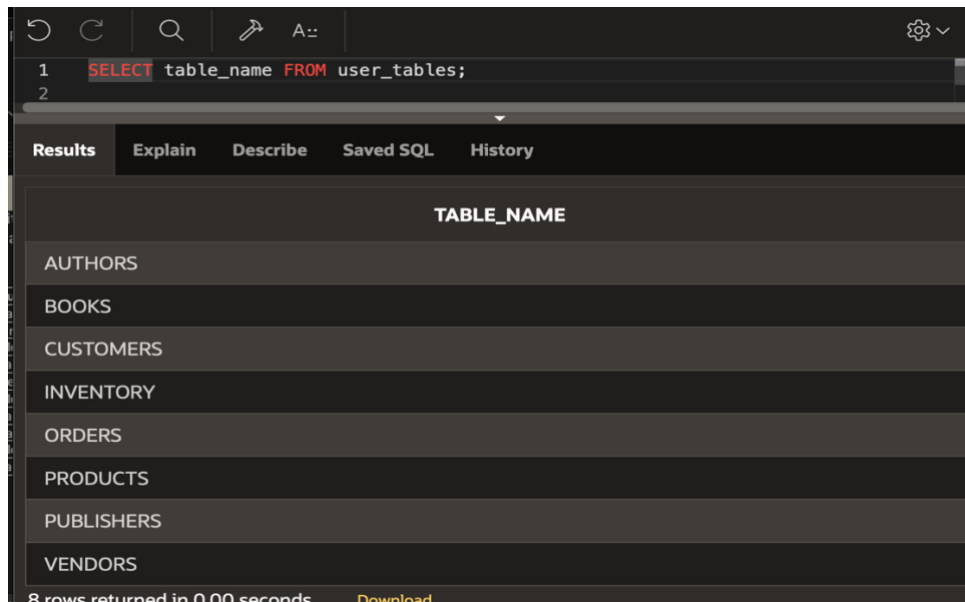
Results   Explain   Describe   Saved SQL   History

Table created.

0.07 seconds

2. Use SQL code to show that each of the tables has been created

```
1   SELECT table_name FROM user_tables;
2
```

Results   Explain   Describe   Saved SQL   History

TABLE_NAME
AUTHORS
BOOKS
CUSTOMERS
INVENTORY
ORDERS
PRODUCTS
PUBLISHERS
VENDORS

8 rows returned in 0.00 seconds   Download

3. Use SQL code to enter the information displayed in Table 1 into the tables you created

```sql
INSERT INTO Books (BookCode, BookTitle, PublisherName, AuthorName)
VALUES (22, 'Stranger', 'Vintage', 'Camus');
INSERT INTO Books (BookCode, BookTitle, PublisherName, AuthorName)
VALUES (13, 'Dreamcatcher', 'Scribner', 'King');
INSERT INTO Books (BookCode, BookTitle, PublisherName, AuthorName)
VALUES (18, 'Beloved', 'Plume', 'Morrison');
INSERT INTO Books (BookCode, BookTitle, PublisherName, AuthorName)
VALUES (37, 'Nine', 'LB Books', 'Salinger');
INSERT INTO Books (BookCode, BookTitle, PublisherName, AuthorName)
VALUES (57, 'Catch 22', 'Scribner', 'Heller');
INSERT INTO Books (BookCode, BookTitle, PublisherName, AuthorName)
VALUES (61, 'Jazz', 'Plume', 'Morrison');
INSERT INTO Books (BookCode, BookTitle, PublisherName, AuthorName)
VALUES (69, 'Franny', 'LB Books', 'Salinger');
INSERT INTO Books (BookCode, BookTitle, PublisherName, AuthorName)
VALUES (75, 'Fall', 'Vintage', 'Camus');
INSERT INTO Books (BookCode, BookTitle, PublisherName, AuthorName)
VALUES (96, 'Grapes', 'Penguin', 'Morrison');
INSERT INTO Books (BookCode, BookTitle, PublisherName, AuthorName)
VALUES (98, 'Catcher', 'LB Books', 'Salinger');
```

```sql
INSERT INTO Authors (AuthorName) VALUES ('Camus');
INSERT INTO Authors (AuthorName) VALUES ('King');
INSERT INTO Authors (AuthorName) VALUES ('Morrison');
INSERT INTO Authors (AuthorName) VALUES ('Salinger');
INSERT INTO Authors (AuthorName) VALUES ('Heller');
```

```sql
INSERT INTO Publishers (PublisherName) VALUES ('Vintage');
INSERT INTO Publishers (PublisherName) VALUES ('Scribner');
INSERT INTO Publishers (PublisherName) VALUES ('Plume');
INSERT INTO Publishers (PublisherName) VALUES ('LB Books');
INSERT INTO Publishers (PublisherName) VALUES ('Penguin');
```

4. Use SQL code to show that the information has been entered into the appropriate tables

Schema   WKSP_JADE22   ⌄   ?

Language   SQL ⌄   ?   Rows   10   ⌄   ?   Save   Run

Clear Command   Find Tables

↺ ↻   🔍   🔧   A:

```
1  SELECT * FROM Authors;
2
```

Results   Explain   Describe   Saved SQL   History

AUTHORNAME
Camus
Heller
King
Morrison
Salinger

5 rows returned in 0.01 seconds   Download

Schema   WKSP_JADE22   ⌄   ?

Language   SQL ⌄   ?   Rows   10   ⌄   ?   Save   Run

Clear Command   Find Tables

↺ ↻   🔍   🔧   A:

```
1  SELECT * FROM Books;
2
```

Results   Explain   Describe   Saved SQL   History

BOOKCODE	BOOKTITLE	PUBLISHERNAME	AUTHORNAME
18	Beloved	Plume	Morrison
37	Nine	LB Books	Salinger
69	Franny	LB Books	Salinger
57	Catch 22	Scribner	Heller
96	Grapes	Penguin	Morrison
13	Dreamcatcher	Scribner	King
75	Fall	Vintage	Camus
98	Catcher	LB Books	Salinger
61	Jazz	Plume	Morrison
22	Stranger	Vintage	Camus

5. Run the following queries:
    a. For each author name, show the book title. Your output should include author name and book title. Order the output by author name in descending order

b. For each publisher, show the books they have published. Your output should include publisher name and book title. Order the output by publisher name in ascending order.

Language   SQL ∨   ⑦   Rows   10   ∨   ⑦   Clear Command   Find Tables   Save   Ru

```sql
1  SELECT PublisherName, BookTitle, BookCode
2  FROM Books
3  ORDER BY PublisherName ASC;
4
```

Results   Explain   Describe   Saved SQL   History

PUBLISHERNAME	BOOKTITLE	BOOKCODE
LB Books	Catcher	98
LB Books	Nine	37
LB Books	Franny	69
Penguin	Grapes	96
Plume	Beloved	18
Plume	Jazz	61
Scribner	Dreamcatcher	13
Scribner	Catch 22	57
Vintage	Stranger	22
Vintage	Fall	75

10 rows returned in 0.00 seconds   Download

c. For each author, show the publisher who has published his work. Your output should include the author's name and the publisher's name. Order the output by author's name in ascending order.

Language   SQL ∨   ⑦   Rows   10   ∨   ⑦   Clear Command   Find Tables   Save   Ru

```sql
1  SELECT AuthorName, PublisherName, BookCode
2  FROM Books
3  ORDER BY AuthorName ASC;
4
```

Results   Explain   Describe   Saved SQL   History

AUTHORNAME	PUBLISHERNAME	BOOKCODE
Camus	Vintage	22
Camus	Vintage	75
Heller	Scribner	57
King	Scribner	13
Morrison	Plume	18
Morrison	Penguin	96
Morrison	Plume	61
Salinger	LB Books	98
Salinger	LB Books	37
Salinger	LB Books	69

10 rows returned in 0.01 seconds   Download

d. List the title of all the books which Salinger has written.


```
1   SELECT BookTitle, BookCode
2   FROM Books
3   WHERE AuthorName = 'Salinger';
4
```

BOOKTITLE	BOOKCODE
Nine	37
Franny	69
Catcher	98

3 rows returned in 0.00 seconds   Download

e. List the title of all the books published by publisher Vintage


```
1   SELECT BookTitle, BookCode
2   FROM Books
3   WHERE PublisherName = 'Vintage';
4
```

BOOKTITLE	BOOKCODE
Fall	75
Stranger	22

2 rows returned in 0.00 seconds   Download

f. List the title of all the books and the publisher's name for all books published by Vintage, LB Books or Plume (use IN)

g. List the title of the books and the publisher name for all books published by Scribner or Plume (use OR) ***NOTE: you should only have four lines of output
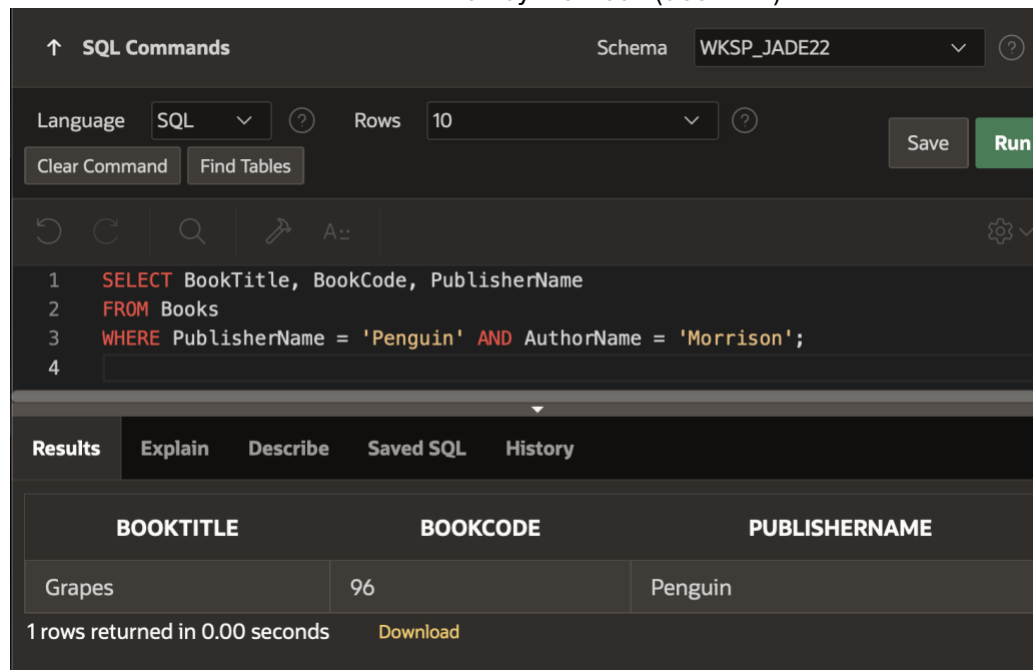
h. List the title of the book and the publisher name for all books published by Penguin and written by Morrison (use AND)

```
1    SELECT BookTitle, BookCode, PublisherName
2    FROM Books
3    WHERE PublisherName = 'Penguin' AND AuthorName = 'Morrison';
4
```

Results   Explain   Describe   Saved SQL   History

BOOKTITLE	BOOKCODE	PUBLISHERNAME
Grapes	96	Penguin

1 rows returned in 0.00 seconds   Download