

A) SQL SCRIPT WITH DDL INSERTS AND QUERIES TO THE BOOKSHOP DATABASE

use bookstore;

```
INSERT INTO publisher (publisher_id, publisher_name, publisher_address, publisher_phone, publisher_url)
```

```
VALUES(01, 'Penguin Random House', 'Luchana 23 Madrid Spain',535819,'http://www.penguinrandomhouse.com/');
```

```
INSERT INTO publisher (publisher_id, publisher_name, publisher_address, publisher_phone, publisher_url)
```

```
VALUES(02, 'Hachette Livre','50 Victoria Embankment',227000, 'https://www.hachette.com');
```

```
INSERT INTO publisher (publisher_id, publisher_name, publisher_address, publisher_phone, publisher_url)
```

```
VALUES(03, 'HarperCollins','The News Building London Bridge Street',2427737,'https://www.harpercollins.com/');
```

```
INSERT INTO author VALUES (01,'Cat Sebastian','9296 Henry St. Auburndale FL 33823');
```

```
INSERT INTO author VALUES (02,'Lorraine Heath','974 Broad Dr. Marcus Hook PA 19061');
```

```
INSERT INTO author VALUES (03,'Jill Shalvis','187 Cherry Rd. Reston VA 20191');
```

```
INSERT INTO author VALUES (04,'Kevin Kwan','13 Locust St. Round Lake IL 60073');
```

```
INSERT INTO author VALUES (05,'Elisabeth Noreback','26 Rock Creek Dr. Tuscaloosa AL 35405');
```

```
INSERT INTO author VALUES (06,'Pamela Brown', '409 Santa Clara Ave. Cedar Rapids IA 52402');
```

```
INSERT INTO book (ISBN, book_title, book_year, book_price, publisher_id, author_id) VALUES ('9706279318','A Gentleman Never Keeps Score',2018,384.00,03,01);
```

```
INSERT INTO book (ISBN, book_title, book_year, book_price, publisher_id, author_id) VALUES ('9728304828','Texas Glory',2015,94.50,03,02);
```

```
INSERT INTO book (ISBN, book_title, book_year, book_price, publisher_id, author_id) VALUES ('9702833373','Rainy day friends',2017,45.00,03,03);
```

```
INSERT INTO book (ISBN, book_title, book_year, book_price, publisher_id, author_id) VALUES ('9703859383','Crazy Rich Asians',2018,234.50,01,04);
```

```
INSERT INTO book (ISBN, book_title, book_year, book_price, publisher_id, author_id) VALUES ('9793937483','Tell me you are mine',2015,23.60,01,05);
```

```
INSERT INTO book (ISBN, book_title, book_year, book_price, publisher_id, author_id) VALUES ('9729473047','The spy and the traitor', 2010,200.00,01, 05);
```

```
INSERT INTO book (ISBN, book_title, book_year, book_price, publisher_id, author_id) VALUES ('9703746264','Paradise Sky by Joe Lansdale',2016,145.00,02,06);
```

```
INSERT INTO book (ISBN, book_title, book_year, book_price, publisher_id, author_id) VALUES ('9739482733','Meet Camaro from The Night Charter',2010,165.99,02,06);
```

```
INSERT INTO customer VALUES ('emkw@mail.com','Karol Wilson', 115099561, '75 Poplar Court Eugene OR 97402');
```

```
INSERT INTO customer VALUES ('rior@mail.com','Richard Orson', 45528305, '33 Richardson Dr. Chandler AZ 85224');
```

```
INSERT INTO customer VALUES ('lowi@mail.com','Loraine Williams', 2211600,'8 Market St. Portsmouth VA 23703');
```

```
INSERT INTO customer VALUES ('sclu@mail.com','Scott Luka', 649373,'412 Pawnee Lane Kenosha, WI 53140');
```

```
INSERT INTO warehouse VALUES (01, 5393544,'530 Roosevelt Lane Hopewell Junction NY 12533');
INSERT INTO warehouse VALUES (02, 9759583,'9592 Applegate Road Bedford OH 44146');
INSERT INTO warehouse VALUES (03, 9958484,'21 Arch Ave. Grand Haven MI 49417');
```

```
INSERT INTO shopping_basket VALUES (01,'emkw@mail.com');
INSERT INTO shopping_basket VALUES (02,'rior@mail.com');
INSERT INTO shopping_basket VALUES (03,'lowi@mail.com');
INSERT INTO shopping_basket VALUES (04,'sclu@mail.com');
```

```
INSERT INTO shopping_basket_has_book VALUES('9706279318',01,1);
INSERT INTO shopping_basket_has_book VALUES('9703746264',01,1);
INSERT INTO shopping_basket_has_book VALUES('9729473047',01,1);
INSERT INTO shopping_basket_has_book VALUES('9739482733',02,1);
INSERT INTO shopping_basket_has_book VALUES('9728304828',02,1);
INSERT INTO shopping_basket_has_book VALUES('9702833373',02,2);
INSERT INTO shopping_basket_has_book VALUES('9703859383',02,1);
INSERT INTO shopping_basket_has_book VALUES('9793937483',03,1);
INSERT INTO shopping_basket_has_book VALUES('9703859383',03,1);
INSERT INTO shopping_basket_has_book VALUES('9702833373',03,1);
INSERT INTO shopping_basket_has_book VALUES('9739482733',04,1);
INSERT INTO shopping_basket_has_book VALUES('9702833373',04,1);
INSERT INTO shopping_basket_has_book VALUES('9729473047',04,1);
INSERT INTO shopping_basket_has_book VALUES('9793937483',04,1);
```

```
INSERT INTO stores (warehouse_id,book_ISBN,count)
VALUES(01,'9728304828',15);
INSERT INTO stores (warehouse_id,book_ISBN,count)
VALUES(01,'9739482733',29);
INSERT INTO stores (warehouse_id,book_ISBN,count)
VALUES(01,'9729473047',151);
INSERT INTO stores (warehouse_id,book_ISBN,count)
VALUES(02,'9703859383',20);
```

B) DOCUMENT WITH PRINT SCREENS OF THE EXECUTION AND QUERY RESULTS.

1) Which book is being sell more right now?

```
SELECT book_ISBN, book_title, SUM(count) AS total_count
FROM shopping_basket_has_book as SB
LEFT JOIN book AS B
    ON SB.book_ISBN = B.ISBN
GROUP BY book_ISBN, book_title
ORDER BY total_count DESC
LIMIT 1;
```

The screenshot displays the MySQL Workbench interface. The 'queries' tab is active, showing the following SQL query:

```
1 • USE bookstore;
2
3 • SELECT book_ISBN, book_title, SUM(count) AS total_count
4 FROM shopping_basket_has_book as SB
5 LEFT JOIN book AS B
6     ON SB.book_ISBN = B.ISBN
7 GROUP BY book_ISBN, book_title
8 ORDER BY total_count DESC
9 LIMIT 1;
```

The 'Result Grid' shows the execution results:

#	book_ISBN	book_title	total_count
1	9702833373	Rainy day friends	4

The interface also shows a 'Schemas' panel on the left with a tree view of the database structure, including tables like 'book', 'customer', 'publisher', 'shopping_basket', and 'stores'. The status bar at the bottom indicates 'Query Completed'.

2) Which customer is buying more books?

```
SELECT C.customer_email, C.customer_name, SUM(SBHB.count) AS total_books
FROM shopping Basket_has_book AS SBHB
LEFT JOIN shopping_basket AS SB
      ON SBHB.basket_id = SB.basket_id
LEFT JOIN customer as C
      ON SB.customer_email = C.customer_email
GROUP BY C.customer_email, C.customer_name
ORDER BY total_books DESC
LIMIT 1;
```

The screenshot shows the MySQL Workbench interface with a query executed. The query is as follows:

```
10
11 • SELECT C.customer_email, C.customer_name, SUM(SBHB.count) AS total_books
12 FROM shopping_basket_has_book AS SBHB
13 LEFT JOIN shopping_basket AS SB
14     ON SBHB.basket_id = SB.basket_id
15 LEFT JOIN customer as C
16     ON SB.customer_email = C.customer_email
17 GROUP BY C.customer_email, C.customer_name
18 ORDER BY total_books DESC
19 LIMIT 1;
20
```

The result grid shows the following data:

#	customer_email	customer_name	total_books
1	rior@mail.com	Richard Orson	5

The interface also shows a schema tree on the left with databases like 'customer', 'book', 'customer', 'publisher', 'shopping_basket', 'shopping_basket_has_book', and 'stores'. The status bar at the bottom indicates 'Query Completed'.

3) Which warehouse has Texas Glory in stock?

```
SELECT W.warehouse_id, W.warehouse_address, B.book_title
FROM stores AS S
LEFT JOIN warehouse AS W
    ON S.warehouse_id = W.warehouse_id
LEFT JOIN book AS B
    ON S.book_ISBN = B.ISBN
WHERE B.book_title = 'Texas Glory';
```

The screenshot shows the MySQL Workbench interface. The 'queries' tab is active, displaying a SQL query that finds the warehouse for 'Texas Glory'. The query is as follows:

```
19 LIMIT 1;
20
21 SELECT W.warehouse_id, W.warehouse_address, B.book_title
22 FROM stores AS S
23 LEFT JOIN warehouse AS W
24     ON S.warehouse_id = W.warehouse_id
25 LEFT JOIN book AS B
26     ON S.book_ISBN = B.ISBN
27 WHERE B.book_title = 'Texas Glory';
28
29 SELECT A.author name, COUNT(B.book title) AS total books
```

The 'Result Grid' at the bottom shows the output of the query:

#	warehouse_id	warehouse_address	book_title
1	1	530 Roosevelt Lane Hopewell Junction NY 12533	Texas Glory

The status bar at the bottom indicates 'Query Completed'.

4) Which author has more books on sell?

```
SELECT A.author_name, COUNT(B.book_title) AS total_books
FROM book AS B
INNER JOIN author AS A
    ON B.author_id = A.author_id
GROUP BY A.author_name
ORDER BY total_books DESC
LIMIT 1;
```

The screenshot shows the MySQL Workbench interface with the following components:

- Top Panel:** Displays the current instance (Local instance 3306) and open tabs (MySQL Model, EER Diagram, queries).
- Left Panel (SCHEMAS):** A tree view showing the database schema. The 'book' table is selected under the 'bookstore' database.
- Central Panel (Query Editor):** Contains the SQL query:

```
27 WHERE B.book_title = 'Texas Glory';
28
29 • SELECT A.author_name, COUNT(B.book_title) AS total_books
30 FROM book AS B
31 INNER JOIN author AS A
32     ON B.author_id = A.author_id
33 GROUP BY A.author_name
34 ORDER BY total_books DESC
35 LIMIT 1;
36
37 • SELECT P.publisher name, COUNT(B.book title) AS total books
```
- Right Panel (Context Help):** Displays help text for the selected query.
- Bottom Panel (Result Grid):** Shows the results of the query in a table format:

#	author_name	total_books
1	Pamela Brown	2
- Status Bar:** Indicates 'Query Completed'.

5) Which publisher offers less books?

```
SELECT P.publisher_name, COUNT(B.book_title) AS total_books
FROM book AS B
INNER JOIN publisher AS P
    ON B.publisher_id = P.publisher_id
GROUP BY P.publisher_name
ORDER BY total_books ASC
LIMIT 1;
```

The screenshot shows the MySQL Workbench interface. The central editor displays a SQL query that finds the publisher with the fewest books. The query is as follows:

```
35 LIMIT 1;
36
37 • SELECT P.publisher_name, COUNT(B.book_title) AS total_books
38 FROM book AS B
39 INNER JOIN publisher AS P
40     ON B.publisher_id = P.publisher_id
41 GROUP BY P.publisher_name
42 ORDER BY total_books ASC
43 LIMIT 1;
44
45
```

Below the query editor, the 'Result Grid' shows the output of the query:

#	publisher_name	total_books
1	Hachette Livre	2

The interface also includes a 'SCHEMAS' sidebar on the left, a 'Context Help' pane on the right, and a 'Query Completed' status bar at the bottom.