JAVA DATABASE CONNECTIVITY

Tasks

1. Insert a new author into the authors table

Problem Statement 1 :

Write a JDBC program to insert a new author with the first name "John", last name "Doe", email "john does.example.com", birthdate "1980-01- 01" into the authors table.

2. Retrieve an author by email.

Problem Statement 2 :

Write a JDBC program to retrieve and display the details of an author by their email from the authors table.

3. Update an author's email.

Problem Statement 3 :

Write a JDBC program to update the email of the author with the given id in the authors table.

4. Delete an author by ID.

Problem Statement 4 :

Write a JDBC program to delete the author with the id I from the authors table.

5. Insert a new post into the posts table.

Problem Statement 5 :

Write a JDBC program to insert a new post with the specific author id, title "My First Post", description "This is the description of my first post", content "This is the content of my first post", and date "2024-06-11" into the posts table.

6. Retrieve all posts by a specific author.

Problem Statement 6 :

Write a JDBC program to retrieve and display all posts written by the author with the id from the posts table.

7. Update a post's title and description.

Problem Statement 7 :

Write a JDBC program to update the title to "Updated Title" and the description to "Updated Description" for the post with the id I in the posts table.

8. Delete a post by ID.

Problem Statement 8 :

Write a JDBC program to delete the post with the specified id from the posts table.

9. Retrieve authors who have posted on a specific date.

Problem Statement 9 :

Write a JDBC program to retrieve and display the details of authors who have posts dated "ex. 2024-06-11" in the posts table.

10. Count the number of posts by each author.

Problem Statement 10 :

Write a JDBC program to count and display the number of posts written by cach author in the posts table.

11. Retrieve posts with a specific keyword in the title.

Problem Statement 11 :

Write a JDBC program to retrieve and display all posts that have the keyword ex. "First" in their title from the posts table.

12. Lost all authors in alphabetical order by last name.

Problem Statement 12 :

Write a JDBC program to retrieve and display all authors from the authors table, ordered alphabetically by their last name.

13. Retrieve the most recent post by a specific author.

Problem Statement 13 :

Write a JDBC program to retrieve and display the most recent post written by the author with the id 1 from the posts table.

14. Find authors with no posts.

Problem Statement 14 :

Write a JDBC program to retrieve and display the details of authors who have not written any posts from the authors table.

15. Retrieve posts within a specific date range.

Problem Statement 15 :

Problem Statement: Write a JDBC program to retrieve and display all posts that were written between "2024-01-01" and "2024-06-11" from the posts table.

16. Archive old posts.

Problem Statement 16 :

Write a JDBC program to move all posts written before "2024- 01-01" from the posts table to a new table called archived_posts.

17. Retrieve post titles and author names together.

Write a JDBC program to retrieve and display the titles of all posts along with the first and last names of their respective authors.

18. Insert multiple authors.

Problem Statement 18 :

Write a JDBC program to batch insert multiple authors into the authors table. For example, insert three authors with various details in a single batch operation.

19. Group posts by author and count the number of posts for each author.

Problem Statement 19 :

Write a JDBC program to retrieve and display the number of posts written by each author, grouping the results by author. The output should include the author's first name, last name, and the count of posts they have written.

20. Calculate the count of posts by each author.

Problem Statement 20 :

Write a JDBC program to calculate and display the count of posts written by each author from the posts table. The program should retrieve the total number of posts for each author and display the author ID along with the count of their posts.

21. Retrieve the oldest author.

Problem Statement 21 :

Write a JDBC program to retrieve and display the details of the author who is the oldest from the authors table. The result should include the author's first name, last name, email, and birthdate.

22. Retrieve a limited number of recent posts.

Problem Statement 22 :

Write a JDBC program to retrieve and display the five most recent posts from the posts table, ordered by the date column in descending order. Ensure the results are limited to only the top five entries.

Tables needs to be used as below.

```
CREATE TABLE authors (

id INT PRIMARY KEY AUTO_INCREMENT,
first_name    VARCHAR(50),
last_name VARCHAR(50),
email VARCHAR(100),
birthdate DATE  );
```

```sql
INSERT INTO authors (first name, last name, email, birthdate)
VALUES

('Amit', 'Sharma', 'amit.sharma@example.com', '1982-07-12'),

('Priya', 'Patel', 'priya.patel@example.com', '1991-04-25'),

('Rajesh', 'Singh', 'rajesh.singh@example.com', '1988-11-30'),

('Neha', 'Gupta', 'neha.gupta@example.com', '1995-09-18');
```

```sql
CREATE TABLE posts (
id INT PRIMARY KEY AUTO_INCREMENT, author_id INT,
title VARCHAR(100),
description TEXT,
content TEXT,
date DATE,
HE
FOREIGN KEY (author_id) REFERENCES authors(id) );
```

```sql
INSERT INTO posts (author_id, title, description, content, date)
VALUES

(1, 'First Post', 'Description of first post', 'Content of first post', '2024-
06-01'),

(2, 'Second Post', 'Description of second post', 'Content of second
post', '2024-06-05'),

 (3, 'Third Post', 'Description of third post', 'Content of third post',
'2024-06-10'),

 (4, 'Fourth Post', 'Description of fourth post', 'Content of fourth post',
'2024-06-15');
```