**Constraints:**

**Query to add a foreign key constraint to the Content table referencing the**

**UserID in the Users table:**

**sql**

*Copy code*

*ALTER TABLE Content*

*ADD CONSTRAINT fk\_user*

*FOREIGN KEY (UserID)*

*REFERENCES Users(UserID);*

**Sets:**

**Query to find users who have created both text and image content:**

**sql**

*Copy code*

*SELECT UserID*

*FROM Content*

*WHERE Type IN ('Text', 'Image')*

*GROUP BY UserID*

*HAVING COUNT(DISTINCT Type) = 2;*

**Joins:**

**Query to retrieve content along with the username of the creator:**

**sql**

*Copy code*

*SELECT c.ContentID, c.Type, c.Data, c.Timestamp, u.Username*

*FROM Content c*

*INNER JOIN Users u ON c.UserID = u.UserID;*

**Views:**

**Query to create a view showing content details and creator information:**

*sql*

*Copy code*

*CREATE VIEW ContentDetails AS*

*SELECT c.ContentID, c.Type, c.Data, c.Timestamp, u.Username*

*FROM Content c*

*INNER JOIN Users u ON c.UserID = u.UserID;*

**Triggers:**

**Trigger to update the timestamp when new content is inserted:**

**sql**

*Copy code*

*CREATE TRIGGER update\_timestamp*

*BEFORE INSERT ON Content*

*FOR EACH ROW*

*BEGIN*

*SET NEW.Timestamp = NOW();*

*END;*

**Cursors:**

**Cursor to iterate through all users and display the count of content created by each user:**

**sql**

*Copy code*

*DELIMITER //*

*CREATE PROCEDURE ContentCountByUser()*

*BEGIN*

*DECLARE done INT DEFAULT FALSE;*

*DECLARE uid INT;*

*DECLARE uname VARCHAR(255);*

*DECLARE content\_count INT;*

*DECLARE cur CURSOR FOR*

*SELECT u.UserID, u.Username, COUNT(c.ContentID) AS content\_count*

*FROM Users u*

*LEFT JOIN Content c ON u.UserID = c.UserID*

*GROUP BY u.UserID;*

*DECLARE CONTINUE HANDLER FOR NOT FOUND SET done = TRUE;*

*OPEN cur;*

*read\_loop: LOOP*

*FETCH cur INTO uid, uname, content\_count;*

*IF done THEN*

*LEAVE read\_loop;*

*END IF;*

*SELECT CONCAT(uname, ' has created ', content\_count, ' pieces of content.') AS content\_info;*

*END LOOP;*

*CLOSE cur;*

*END //*

*DELIMITER ;*

*CALL ContentCountByUser();*