NORMALIZATION OF TABLES BOOK_AUTHORS & AUTHORS FROM TABLE BOOK

```
create table Authors(
Author_id number(20),
Author_Name varchar2(200));

select max(regexp_count(authro, ','))

from books_load;

select * from (

SELECT b.authro

,REGEXP_SUBSTR (authro, '[^,]+', 1, 1) AS part_1

, REGEXP_SUBSTR (authro, '[^,]+', 1, 2) AS part_2

, REGEXP_SUBSTR (authro, '[^,]+', 1, 3) AS part_3

, REGEXP_SUBSTR (authro, '[^,]+', 1, 4) AS part_4

, REGEXP_SUBSTR (authro, '[^,]+', 1, 5) AS part_5

FROM books_load b)

where part_5 is not null;


select isbn10,part_1,part_2,part_3,part_4,part_5 from (

SELECT b.*

,REGEXP_SUBSTR (authro, '[^,]+', 1, 1) AS part_1

, REGEXP_SUBSTR (authro, '[^,]+', 1, 2) AS part_2

, REGEXP_SUBSTR (authro, '[^,]+', 1, 3) AS part_3

, REGEXP_SUBSTR (authro, '[^,]+', 1, 4) AS part_4

, REGEXP_SUBSTR (authro, '[^,]+', 1, 5) AS part_5

FROM books_load b) ;

create table temp_Authors(

isbn10 number(35),
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part_1 varchar2(200),

part_2 varchar2(200),

part_3 varchar2(200),

part_4 varchar2(200),

part_5 varchar2(200));

SELECT * FROM TEMP_AUTHORS WHERE PART_2 IS NULL;
SELECT * FROM TEMP_AUTHORS WHERE PART_3 IS NULL AND PART_2 IS NOT NULL;
SELECT * FROM TEMP_AUTHORS WHERE PART_4 IS NULL AND PART_3 IS NOT NULL;


SELECT * FROM TEMP_ISBN_AUTHOR WHERE AUTHOR_NAME IN
(SELECT DISTINCT LOWER(AUTHOR_NAME) AS AUTHOR_NAME FROM TEMP_ISBN_AUTHOR
WHERE AUTHOR_NAME IS NOT NULL);

SELECT * FROM
(SELECT DISTINCT LOWER(AUTHOR_NAME) AS AUTHOR_NAME FROM TEMP_ISBN_AUTHOR
WHERE AUTHOR_NAME IS NOT NULL) ORDER BY AUTHOR_NAME;

SELECT ISBN, INITCAP(AUTHOR_NAME) FROM TEMP_ISBN_AUTHOR;

SELECT AUTHOR_ID, ISBN FROM (SELECT A.ISBN, B.AUTHOR_NAME, B.AUTHOR_ID FROM
TEMP_ISBN_AUTHORS A, AUTHORS B WHERE LOWER (A.AUTHOR_NAME) =
LOWER(B.AUTHOR_NAME));

SELECT AUTHOR_ID, ISBN
FROM TEMP_ISBN_AUTHORS A
JOIN AUTHORS B
ON LOWER (A.AUTHOR_NAME) = LOWER(B.AUTHOR_NAME);

SELECT DISTINCT AUTHOR_ID, ISBN FROM TEMP_BOOK_AUTHORS;
```