CSC 333

LAB 4 – RELATIONS AND DATABASES

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Problem 6:

Restrict Author where Country = "U.S." giving Results1

```
SELECT *
FROM Author
WHERE Country = "U.S.";
```

```
mysql> SELECT *
    -> FROM Author
    -> WHERE Country = "U.S.";
+-----+---------------+---------+----------------------+
| Aid | Name          | Country | Title                |
+-----+---------------+---------+----------------------+
|   4 | Bert Kovalsco | U.S.    | Baskets for Today    |
|   8 | Jane East     | U.S.    | Springtime Gardening |
+-----+---------------+---------+----------------------+
2 rows in set (0.00 sec)
```

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Problem 8:

Restrict Book where Publisher = "Bellman" or Publisher = "Swift-Key" giving Results3

```
SELECT *
FROM Book
WHERE Publisher = "Bellman"
OR Publisher = "Swift-Key";
```

```
mysql> SELECT *
    -> FROM Book
    -> WHERE Publisher = "Bellman"
    -> OR Publisher = "Swift-Key";
+-----+---------------------+---------------+-----------+---------+
| Bid | Title               | ISBN          | Publisher | Subject |
+-----+---------------------+---------------+-----------+---------+
|   2 | Early Tang Paintings | 0-364-87547-X | Bellman   | Art     |
|   4 | Springtime Gardening | 0-56-000142-8 | Swift-Key | Nature  |
+-----+---------------------+---------------+-----------+---------+
2 rows in set (0.00 sec)
```

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Problem 9:

Restrict Book where Publisher = "Harding" and Subject = "Art" giving Results4

```
SELECT *
FROM Book
WHERE Publisher = "Harding"
AND Subject = "Art";
```

```
mysql> SELECT *
    -> FROM Book
    -> WHERE Publisher = "Harding"
    -> AND Subject = "Art";
+-----+------------------+---------------+-----------+---------+
| Bid | Title            | ISBN          | Publisher | Subject |
+-----+------------------+---------------+-----------+---------+
|   5 | Baskets for Today | 0-816-53705-4 | Harding   | Art     |
+-----+------------------+---------------+-----------+---------+
1 row in set (0.00 sec)
```

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Problem 11:

Project Author over (Name, Country) giving Results6

```
SELECT Name, Country
FROM Author;
```

```
mysql> SELECT Name, Country
    -> FROM Author;
+---------------+---------+
| Name          | Country |
+---------------+---------+
| Dorothy King  | England |
| Jon Nkoma     | Kenya   |
| Won Lau       | China   |
| Bert Kovalsco | U.S.    |
| Tom Quercos   | Mexico  |
| Jimmy Chan    | China   |
| Dorothy King  | England |
| Jane East     | U.S.    |
+---------------+---------+
8 rows in set (0.00 sec)
```

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Problem 12:

Project Book over (Publisher, Subject) giving Results7

SELECT Publisher, Subject
FROM Book;

```
mysql> SELECT Publisher, Subject
    -> FROM Book;
+-----------+---------+
| Publisher | Subject |
+-----------+---------+
| Harding   | Nature  |
| Bellman   | Art     |
| Loraine   | Nature  |
| Swift-Key | Nature  |
| Harding   | Art     |
| Harding   | Nature  |
+-----------+---------+
6 rows in set (0.00 sec)
```

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Problem 14:

Join Book and Writes over Title and ISBN giving Results9

SELECT *
From Book
JOIN Writes USING (Title, ISBN);

```
mysql> SELECT *
    -> From Book
    -> JOIN Writes USING (Title, ISBN);
+---------------------+---------------+-----+-----------+---------+-----+--------------+
| Title               | ISBN          | Bid | Publisher | Subject | Wid | Name         |
+---------------------+---------------+-----+-----------+---------+-----+--------------+
| Springtime Gardening | 0-816-35421-9 |   1 | Harding   | Nature  |   7 | Dorothy King |
| Early Tang Paintings | 0-364-87547-X |   2 | Bellman   | Art     |   1 | Jimmy Chan   |
| Early Tang Paintings | 0-364-87547-X |   2 | Bellman   | Art     |   5 | Won Lau      |
| Birds of Africa      | 0-115-01214-1 |   3 | Loraine   | Nature  |   6 | Jon Nkoma    |
| Springtime Gardening | 0-56-000142-8 |   4 | Swift-Key | Nature  |   3 | Jane East    |
| Baskets for Today    | 0-816-53705-4 |   5 | Harding   | Art     |   4 | Bert Kovalsco |
| Autumn Annuals       | 0-816-88506-0 |   6 | Harding   | Nature  |   2 | Dorothy King |
+---------------------+---------------+-----+-----------+---------+-----+--------------+
7 rows in set (0.00 sec)
```

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Problem 16:

What would be wrong with doing a join of Author and Book over Title?

The titles are not unique. There are two instances of "Springtime Gardening" in each table, so a join will not be able to differentiate between the two.
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Problem 18:

Give the names of all authors who publish with Harding.

Book contains publisher information.

```
SELECT Name
From Book, Writes
WHERE Book.ISBN = Writes.ISBN
AND Publisher = "Harding";

mysql> SELECT Name
    -> FROM Book, Writes
    -> WHERE Book.ISBN = Writes.ISBN
    -> AND Book.Publisher = "Harding";
+----------------+
| Name           |
+----------------+
| Dorothy King   |
| Bert Kovalsco  |
| Dorothy King   |
+----------------+
3 rows in set (0.00 sec)
```