

CSC343 Worksheet 3 Solution

June 15, 2020

1. Exercise 6.1.1:

If there is a comma between A and B (i.e, *SELECT A, B*), we can conclude A and B are two different attributes.

If there are no commas between A and B , we can conclude B is an alias of A .

2. Exercise 6.1.2:

- a) *SELECT address FROM Studio WHERE name = 'MGM';*
- b) *SELECT birthdate FROM MovieStar WHERE name = 'Sandra Bullock';*
- c) *SELECT starName FROM StarsIn WHERE movieYear = 1980, movieTitle LIKE '%Love%';*

Correct Solution:

```
SELECT starName FROM StarsIn WHERE movieYear = 1980 AND movieTitle  
LIKE '%Love%';
```

- d) *SELECT name FROM MovieExec WHERE netWorth >= 10000000;*
- e) *SELECT name FROM MovieStar WHERE gender='male' OR address LIKE '%Malibu%';*

3. Exercise 6.1.3:

- a) *SELECT model, speed, hd FROM PC WHERE price < 1000;*
- b) *SELECT model, speed AS gigahertz, hd AS gigabytes FROM PC WHERE price < 1000;*
- c) *SELECT maker FROM Product WHERE type='printer';*
- d) *SELECT model, ram, screen FROM Laptops WHERE price > 1500;*
- e) *SELECT * FROM Printer WHERE color=TRUE;*

f) `SELECT model, hd FROM PC WHERE speed = 3.20 AND price < 2000;`

4. **Exercise 6.1.4:**

- a) `SELECT class, country FROM Classes where numGuns >= 10;`
- b) `SELECT name AS shipName FROM Ships WHERE launched < 1918;`
- c) `SELECT ship, battle FROM Outcomes WHERE result='sunk';`
- d) `SELECT name FROM Ships WHERE name = class;`
- e) `SELECT name FROM Ships WHERE name LIKE 'R%';`
- f) `SELECT name FROM ships WHERE name LIKE '% % %';`

5. **Exercise 6.1.5:**

- a) Given $a = 10$, the sets of tuples that satisfy the condition is

$(10, -MAX_INT), (10, -MAX_INT + 1), \dots, (10, 0), \dots, (10, MAX_INT - 1),$
 $(10, MAX_INT), (10, NULL)$

Given $b = 20$, the sets of tuples that satisfy the condition is

$(-MAX_INT, 20), (-MAX_INT + 1, 20), \dots, (0, 20), \dots, (MAX_INT - 1, 20),$
 $(MAX_INT, 20), (NULL, 20)$

Given $a = 10$ and $b = 20$, the set of tuple that satisfy the condition is $(10, 20)$