

Example: Delete Some Tuples

1

- Delete from **Beers(name, manf)** all beers for which there is another beer by the same manufacturer.

DELETE FROM Beers b
WHERE

```
EXISTS (
  SELECT name
  FROM Beers
  WHERE manf = b.manf AND
        name <> b.name);
```

Beers with the same manufacturer and a different name from the name of the beer represented by tuple b.

1

Semantics of Deletion --- (1)

2

- Suppose Anheuser-Busch makes only Bud and Bud Lite.
- Suppose we come to the tuple *b* for Bud first.
- The subquery is nonempty, because of the Bud Lite tuple, so we delete Bud.
- Now, when *b* is the tuple for Bud Lite, do we delete that tuple too?

2

Semantics of Deletion --- (2)

3

- Answer:** we do delete Bud Lite as well.
- The reason is that deletion proceeds in two stages:
 - Mark all tuples for which the WHERE condition is satisfied.
 - Delete the marked tuples.

3

Updates

4

- To change certain attributes in certain tuples of a relation:


```
UPDATE <relation>
SET <list of attribute assignments>
WHERE <condition on tuples>;
```

4

Example: Update

5

- Change drinker Fred's phone number to 555-1212:

```
UPDATE Drinkers
SET phone = '555-1212'
WHERE name = 'Fred';
```

5

Example: Update Several Tuples

6

- Make \$4 the maximum price for beer:

```
UPDATE Sells
SET price = 4.00
WHERE price > 4.00;
```

6