

DML - UPDATE

MAD 202



UPDATE Statement

- UPDATE is similar to the ALTER DDL statement, but instead of changing the structure of a table, we are changing the data that is contained within the table.
- We can update all rows in a table or we can update specific rows in a table

```
UPDATE table  
SET column = value
```

This would update all values in that column, not just the record we want

```
UPDATE table  
SET column = value  
WHERE  
column = value
```



UPDATE statement

- Each value must have the same data type or must be implicitly convertible to the same type as its column
- Order of rows is unimportant



The WHERE clause

- The WHERE clause limits the change to the areas that we specifically wanted.
- It acts as a filter
- It is optional (without it all values will be updated)
- It is all about true conditions



UPDATE ALL

```
ALTER TABLE superheroes  
ADD COLUMN jl_member CHAR(3) NULL;
```

```
UPDATE superheroes  
SET jl_member= 'YES';
```

Updates all current records to YES



Where condition is true

```
UPDATE superheroes  
SET secret_identity = 'Diana Prince'  
WHERE hero_id=3;
```



Filter

```
ALTER TABLE superheroes  
ADD COLUMN gender CHAR(6);
```

```
UPDATE superheroes  
SET gender = 'male'  
WHERE hero_name <> 'Wonder Woman';
```

The <> means ***NOT***. This is a comparison operator



Comparison operators

=	means equal to
<>	means not equal to
<	means less than
>	means greater than
<=	means less than or equal to
>=	means greater than or equal to

EXAMPLE:

```
UPDATE  personnel
  SET   salary = salary * 1.07
  WHERE jobgrade <=4;
```

Would increase the salary by 7% where the jobgrade is 4 and under.



LIKE

- The LIKE operator implements pattern matching
- If we wanted to update the wonder woman gender column to female, we could:

```
UPDATE superheroes  
SET gender='female'  
WHERE hero_name LIKE '%Woman';
```

WILDCARDS

- The % looks for one or more characters before
- The _ looks for one character



BETWEEN

- Enables a range test

```
UPDATE superheroes  
SET age = 37  
WHERE age BETWEEN 35 AND 38;
```

The values being checked are included in the between range test (so anyone that was 35 would be updated as would anyone who is 38)



COMPOUND CONDITIONS

- AND ----- OR
- The AND condition

```
UPDATE superheroes  
SET age = 33  
WHERE hero_name = 'Superman' AND secret_identity='Clark Kent';
```

The OR condition

```
UPDATE superheroes  
SET age = 32  
WHERE hero_name = 'Superman' OR hero_name='Wonder Woman';
```

