

# Multiple Table Queries: where Clause

# Multiple Techniques

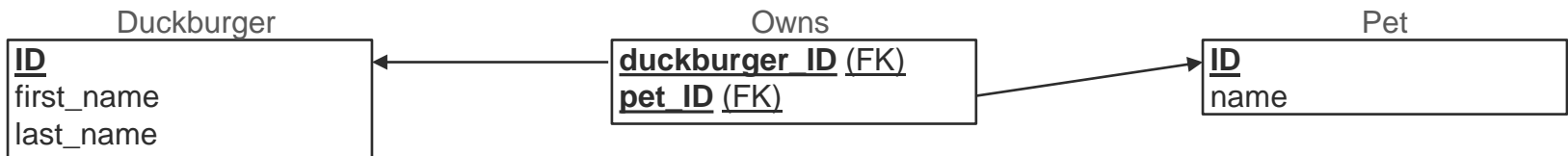
- On this course we will learn three different ways of making queries where the required data is stored in several tables.
- **where** as join condition
- **inner join (left join, right join)**
- **subquery**

# Why Different Techniques?

- Often you can freely select the technique you want, but sometimes it is not possible.
- On this course we will run into two situations where we must use a specific technique:
  - left join
  - subquery

# where

- We need to fetch the first name and last name for each of Bolivar's owners.
- Let's first take another look at our relational model.



- The owns table contains two foreign keys referencing the duckburger and pet tables respectively.

# where

- We notice that the required columns, the owners' first and last names, are stored in the duckburger table.
- Furthermore, we notice that the first information, Bolivar's name is stored in the pets table.
- The ownership information is in the owns table.
- Conclusion: We need all three tables to complete the query.

# Example Queries: select \*

- Fetch all columns in the duckburger table:

```
MariaDB [duckburg]> select * from duckburger;
```

ID	first_name	last_name
1	Donald	Duck
2	Scrooge	McDuck
3	Huey	Duck
4	Magica	De Spell
5	Mickey	Mouse

- The wildcard symbol \* selects **all columns**.

# Example Queries: where

- Fetch all columns in the duckburger table but only include the records where the last name is Duck.

```
MariaDB [duckburg]> select * from duckburger where last_name = "Duck";
```

```
+-----+-----+-----+
| ID | first_name | last_name |
+-----+-----+-----+
|  1 | Donald    | Duck      |
|  3 | Huey      | Duck      |
+-----+-----+-----+
```

New skill: **where** conditions

# Example Queries: like

- Select all last names that have the letter "e" in them.

```
MariaDB [duckburg]> select last_name from duckburger  
where last_name like "%e%";
```

```
+-----+  
| last_name |  
+-----+  
| De Spell  |  
| Mouse     |  
+-----+
```

## New skills:

- Pick specific field(s) in the select statement.
- Fetch by letter: The % symbol matches any letters.



# Example Queries: order by

- Fetches all columns in the duckburger table and sorts the records first by last name and then by first name, in descending order.

```
MariaDB [duckburg]> select * from duckburger order by last_name desc,  
first_name desc;
```

ID	first_name	last_name
1	Magica	De Spell
3	Donald	Duck
1	Huey	Duck
3	Scrooge	McDuck
3	Mickey	Mouse

New skill: Sorting (**order by, asc, desc**)

# Example Queries: alias

- Fetch all columns in the duckburger table so that the ID column has a new name "identifier".

```
MariaDB [duckburg]> select id as identifier, first_name, last_name  
from duckburger;
```

identifier	first_name	last_name
1	Donald	Duck
2	Scrooge	McDuck
3	Huey	Duck
4	Magica	De Spell
5	Mickey	Mouse

New skill: **alias** or **as**

Note: aliases are much more versatile than shown here.