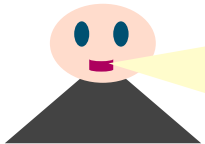# Single Table Queries

Query Contents

- **select** – describes the columns that should be included in the response
- **from** – defines the table(s) where the required data resides
- **where** – conditions for filtering the records

- The best way to learn how to make queries is by practice.
- In the next slides you will find example queries. You should test out all the examples yourself and not just read them.

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.