

Exercise 1

Using code provided in Example 2, create bikesharing table in default database with the following columns:

- `tstamp` **timestamp**
- `cnt` **integer**
- `temperature` **decimal(5, 2)**
- `temperature_feels` **decimal(5, 2)**
- `humidity` **decimal(4, 1)**
- `wind_speed` **decimal(5,2)**
- `weather_code` **integer**
- `is_holiday` **boolean**
- `is_weekend` **boolean**
- `season` **integer**



Exercise 2

- load values from `london-bikes.csv` and insert it into the database, one by one
- * commit after every 100 inserts, not after every one



Fetching values

- To fetch values execute a select statement in cursor
- Then use cursor's `fetchone` to fetch a single row or `fetchall` to fetch all resulting rows
- Cursor also stores row count in a `rowcount` property and
- Column names in `description` property



Exercise 3

- fetch total sum of new shares by season
- fetch total sum of new shares during thunderstorms
- fetch the date and hour with the most new shares



Updating values - Exercise 4

- Add 10 to cnt column for all 2015-01-09 entries



Deleting values - Exercise 5

- Delete all entries from 2017-01-03 in bikesharing table





Exercise: “TODO application”



Exercise 6

The goal: a “To Do” application

- Create a `todo_app` database
- Create a `tasks` table with the following schema
 - `id int not null auto_increment`
 - `task text not null`
 - `done boolean`
 - **primary key** - `id`
- In a loop:
 - ask user what to do using `input()`
 - show task list
 - mark task as done
 - add new task
 - exit application
- Implement functions which perform the above actions using the database as task storage
- For show tasks:
 - print all open tasks and their ids in order of ids
- For mark as done
 - ask user which id to mark as done
 - update the `done` field in the table for given id
- For add new task
 - ask for task name/description
 - insert a new record to the tasks db