

LU06.L03 - ToDo-Liste mit SQLite und DAO-Klassen

TodoDao

todoDao.py

```
import sqlite3
from todoItem import TodoItem

# TODO: Implementiere die TodoDao-Klasse für CRUD-Operationen
class TodoDao:

    def __init__(self, db_file):
        self.conn = sqlite3.connect(db_file)
        self.cursor = self.conn.cursor()

    def create_table(self):
        self.cursor.execute("""DROP TABLE IF EXISTS todo_items""")
        self.cursor.execute(
            """CREATE TABLE IF NOT EXISTS todo_items (item_id INTEGER
PRIMARY KEY, title TEXT, is_completed BOOLEAN)"""
        )
        self.conn.commit()

    def add_item(self, todo_item):
        self.cursor.execute(
            "INSERT INTO todo_items (title, is_completed) VALUES (?,
?)",
            (todo_item.title, todo_item.is_completed),
        )
        self.conn.commit()

    def get_item(self, item_id):
        self.cursor.execute("SELECT * FROM todo_items WHERE item_id =
?", (item_id,))
        row = self.cursor.fetchone()
        if row:
            return TodoItem(row[0], row[1], row[2])
        return None

    def get_all_items(self):
        self.cursor.execute("SELECT * FROM todo_items")
        rows = self.cursor.fetchall()
        todo_items = [TodoItem(row[0], row[1], row[2]) for row in rows]
```

```
        return todo_items

    def update_item(self, todo_item):
        self.cursor.execute(
            "UPDATE todo_items SET title = ?, is_completed = ? WHERE
item_id = ?",
            (todo_item.title, todo_item.is_completed,
            todo_item.item_id),
        )
        if self.cursor.rowcount > 0:
            self.conn.commit()
            return True
        return False

    def delete_item(self, item_id):
        self.cursor.execute("DELETE FROM todo_items WHERE item_id = ?",
(item_id,))
        if self.cursor.rowcount > 0:
            self.conn.commit()
            return True
        return False

    def close(self):
        self.conn.close()
```

Todoltem

[todoltem.py](#)

```
from dataclasses import dataclass

# TODO: Implementiere die TodoItem-Klasse mit @dataclass
@dataclass
class TodoItem:
    item_id: int
    title: str
    is_completed: bool
```

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