Kurs
Datenbankgrundlagen und Modellierung

Sebastian Maneth, Universität Bremen

maneth@uni-bremen.de

SoSe 2023

10.05.2023

Tutorial 1: Getting to know the Movies DB

Tutor: Marcel Westenberg

Get the movies data base:

http://user.informatik.uni-bremen.de/smaneth/movies.sqlite3.gz

Navigating inside the Console (cmd)

- Find sqlite3.exe

- Add sqlite3.exe-path to the Enviroment Variables

- Sqlite3:
  - .shell cd show current directory
  - .cd (path) lets you change the current directory

- .open (table)

- Now we can go directly to our moviesDB
  - sqlite3 movies.sqlite3

Usefull commands in sqlite3

- .open (sqlite3 datei)
- .mode (?, table, qbox)
- .tables
- .schema (tablename)

Basics: Getting to know the MovieDB

- How many tables do we have?

- How large are our tables?

- Which is the largest?

- Which schema does it follow?

Finding S. Kubrick, a step by step guide:

- Where should he be/Which table(s) do we need?

- What is his personid?

- Are there any other Kubricks?

- Which movies did he direct?

- How much profit did they make?

- How many awards did they/he win?
  - Bonus: Are there any S. Kubrick movies, that didn't win an award? Which?

Queries:

- Which movie made the most profit and when was it released?
- Who directed it?
- Which movie has the most directors and how many?
- How many movies have the same title?
- What are the
  - most popular actor names?
  - Top 10 Movies with the least/most actors?
  - Top 20 directors who made the most movies
  - Top 20 directors with the most awards?
  - Top 10 Actors that played in the most movies?

Bonus: Errors

- Are there any tables with null-values?

- Duplicates
    - How to find them
    - How to deal with them

- select movieid, country from movies order by length(country) desc limit 10;

General Form of an SQL Query:

```
SELECT      list of attributes
FROM        list of tables
WHERE       condition over attributes
GROUP BY    list of attributes
HAVING      condition over aggregates
ORDER BY    list of attributes
LIMIT       number
```

aggregate functions:

```
COUNT       VARIANCE
SUM         STDDEV
AVG         BIT_OR
MAX         BIT_AND
MIN
```