

Datenbanken I

Blatt 2

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5. Mai 2016

1 Aufgabe

Person = {p_id : number, firstname : string, lastname : string}

acts = {p_id : number, m_id : number, role : string}

Movie = {m_id : number, title : string, year : number, Oscars : number, Genre : string, FSK : number, language : string, length : number, directedBy : number}

Cinema = {name : string, location : string}

Room = {RoomNr : number, inName : string, inLocation : string, size : number}

screening = {m_id : number, RoomNr : number, inName : string, inLocation : string, date : date, time : number, price : number}

2 Aufgabe

2.1 Select the titles of all movies that were directed by Friedrich Wilhelm Murnau.

```
1 πtitle (
2   σfirstname = 'Friedrich Wilhelm' ∧ lastname = 'Murnau', (
3     Movie ⚈ Person
4   )
5 )
```

2.2 Select the titles of all movies that were directed by Tim Burton and none of the actors is Johnny Depp.

```
1 πtitle (
2   σfirstname = 'Tim' ∧ lastname = 'Burton', (
3     Movie ⚈ Person
4   )
5 ) - πtitle (
6   σfirstname = 'Johnny' ∧ lastname = 'Depp', (
7     (Movie ⚈ acts) ⚈ Person
8   )
9 )
```

2.3 Select the movie title, the name and location of the cinema, and the time and price of all movies that are shown today and have the genre Documentary.

```
1 πtitle, name, location, time, price (
2   σdate = 2016-05-05 ∧ Genre = 'Documentary', (
3     Movie ⚈ screening
4   )
5 )
```