Datenbanken: Übungsblatt 5

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Aufgabe 1

Bitte um Anmerkungen hinsichtlich Formatierung der Anfragen!

1.
```sql
SELECT
    a.name
FROM
    ARTIST a, COUNTRY c
WHERE
    c.name='Germany'
    and begin_year > 1950
    and begin_year < 1970
    -- Exclude the bands
    and a.type = 'Group'
    and c.id = a.origin
```

2.
```sql
SELECT DISTINCT
    c.city
FROM
    ARTIST a, Concert c
WHERE
    a.id = c.artist
    and a.name = 'Rammstein'
    and c.name = 'Winter 2001 Tour'
```

3.
```sql
SELECT
    a0.name, (a.end_year-a.begin_year) AS Dauer
FROM
    ARTIST_RELATION a
    INNER JOIN ARTIST a1 ON a.artist1 = a1.id
        INNER JOIN ARTIST a0 ON a.artist0 = a0.id
WHERE
    a.type = 'married'
        and a1.name = 'Morgan, Lorrie'
or a0.name = 'Morgan, Lorrie'
```

4.
```sql
SELECT
    r0.name, r0.year
FROM
    RELEASE r0
    LEFT OUTER JOIN RELEASE r1
        ON r0.format = r1.format AND r0.year > r1.year
    WHERE
        r1.year IS NULL
        AND r0.year IS NOT NULL
        AND r0.format = 'Cassette'
```

5.
```sql
SELECT
    a1.name, a1.begin_year AS Geburtsjahr
FROM
    ARTIST_RELATION a
    INNER JOIN ARTIST a1 ON a.artist1 = a1.id
        INNER JOIN ARTIST a0 ON a.artist0 = a0.id
WHERE
    a.type = 'parent'
    and a0.name = 'Smith, Will'
ORDER BY
    a1.begin_year ASC
```

Aufgabe 2

1.
```sql
SELECT DISTINCT
    t.name
FROM
    TRACK t
    INNER JOIN RELEASE r ON t.tracklist = r.tracklist
WHERE
    t.name ILIKE '%what is%'
    AND r.format = 'CD'
    AND r.year = 2011
```

2.
```sql
SELECT
    a1.name, char_length(a1.name)
FROM
    ARTIST a1
    LEFT OUTER JOIN
        artist a2
    ON
        char_length(a2.name) > char_length(a1.name)
WHERE
    a2.name is NULL
    AND a1.type = 'Group'
```

3.
```sql
SELECT
    substring(a.name from '\,\s(.*)') AS Vorname
FROM
    ARTIST a
WHERE
    a.begin_year = 1998
    AND a.type = 'Person'
    AND substring(a.name from '\,\s(.*)') is not NULL
```

Aufgabe 3

1.
```sql
SELECT
    a.name
FROM
    ARTIST a
WHERE
    a.begin_year = 1990
    AND a.type = 'Person'
    AND exists(
        SELECT *
        FROM ARTIST b
        WHERE a.name = b.name AND b.type = 'Group'
    )
```

```
2. SELECT DISTINCT
       s.name
   FROM
       SONGS s JOIN CONCERT c ON s.setlist = c.setlist
   WHERE
       c.artist = (SELECT a.id FROM ARTIST a WHERE a.name = 'AC/DC')
       AND NOT EXISTS(
           SELECT *
           FROM
               TRACK t JOIN RELEASE r ON r.tracklist = t.tracklist
               JOIN ARTIST_CREDIT cred on cred.tracklist = t.tracklist
           WHERE
               cred.artist = (SELECT a.id FROM ARTIST a WHERE a.name = 'AC/DC')
               AND s.name = t.name
       )
```

Aufgabe 4

1.

2.

3.

4.

5.