

Uebungsblatt 5

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Aufgabe 1

count version:

```
SELECT LNr
FROM (SELECT *
      FROM LIEFERUNG NATURAL JOIN TEIL
      WHERE Farbe = 'gruen') A
GROUP BY LNr
HAVING count(distinct PNr) = (SELECT count(distinct PNr) FROM A);
```

```
SELECT LNr
FROM (SELECT *
      FROM LIEFERUNG NATURAL JOIN TEIL
      WHERE Farbe = 'gruen') A1
WHERE NOT EXISTS
  (SELECT distinct PNr
   FROM (SELECT *
        FROM LIEFERUNG NATURAL JOIN TEIL
        WHERE Farbe = 'gruen') A2
   WHERE NOT EXISTS (SELECT distinct PNr FROM A2 WHERE A2.LNr = A1.LNr));
```

Aufgabe 2

- a.

```
CREATE TABLE Schiffe(schiff_nr int PRIMARY KEY);
CREATE TABLE Piraten(
  pId numeric(8, 2) PRIMARY KEY,
  pName varchar(50) NOT NULL UNIQUE,
  pShout varchar(50) DEFAULT 'Arr!' NOT NULL,
  pFakeHand int NOT NULL CHECK(pFakeHand BETWEEN 0 AND 2),
  ShipNr int CONSTRAINT angeheuert REFERENCES Schiffe(schiff_nr) ON DELETE CASCADE);
```
- b.

```
ALTER TABLE Piraten
ADD CONSTRAINT Arr_Pirate CHECK (pFakeHand = 0 OR pShout LIKE '%arr%');
```
- c.

```
ALTER TABLE Piraten DROP CONSTRAINT Arr_Pirate;
```
- d.

```
CREATE ASSERTION noShoutCliche CHECK (
  (SELECT count(*) FROM Piraten WHERE pShout LIKE '%arr%')
  <= 0,9 * (SELECT count(*) FROM Piraten)
);
```

Aufgabe 3

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