

bungsblatt 5

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Aufgabe 1

count version:

```
SELECT LNr
FROM (SELECT *
      FROM LIEFERUNG NATURAL JOIN TEIL
      WHERE Farbe = 'gr<fc>n') 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 = 'gr<fc>n') A1
WHERE NOT EXISTS
  (SELECT distinct PNr
   FROM (SELECT *
        FROM LIEFERUNG NATURAL JOIN TEIL
        WHERE Farbe = 'gr<fc>n') A2
   WHERE NOT EXISTS (SELECT distinct PNr FROM A2 WHERE A2.LNr = A1.LNr));
```

Aufgabe 2

a. `\begin{verbatim} 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); \end{verbatim}`

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