Zwei Tabellen mit Fremdschlüsselbeziehung

CREATE TABLE R (  
    ID int PRIMARY KEY,  
    a int  
)  

CREATE TABLE S (  
    ID int PRIMARY KEY,  
    FKaufR int REFERENCES R  
)
Beispieldaten erzeugen...

```
INSERT INTO R
VALUES (1, 47), (2, 42), (3, 32)

INSERT INTO S
VALUES (1, 2), (2, 1), (3, 2)
```
Daten aus R löschen...

DELETE FROM R
WHERE ID=2

ERROR: update or delete on table "r" violates foreign key constraint "s_fkaufr_fkey" on table "s"
DETAIL: Key (id)=(2) is still referenced from table "s".

DELETE FROM R
WHERE ID=3

Query returned successfully: one row affected, 19 ms execution time.
CREATE TABLE R (  
  ID int PRIMARY KEY,
  a int
)

CREATE TABLE S (  
  ID int PRIMARY KEY,
  FKaufR int REFERENCES R
)
```
NO ACTION

CREATE TABLE R (  
  ID int PRIMARY KEY,  
  a int,  
)

CREATE TABLE S (  
  ID int PRIMARY KEY,  
  FKaufR int REFERENCES R,  
  ON DELETE NO ACTION  
  ON UPDATE NO ACTION
)  
```
CREATE TABLE R (  
  ID int PRIMARY KEY,  
  a int  
)

CREATE TABLE S (  
  ID int PRIMARY KEY,  
  FKaufR int REFERENCES R ON DELETE SET NULL  
)
SET NULL: Daten aus R löschen...

```sql
DELETE FROM R
WHERE ID = 2
```

Query returned successfully: one row affected, 20 ms execution time.

<table>
<thead>
<tr>
<th>vorher</th>
<th>nachher</th>
</tr>
</thead>
<tbody>
<tr>
<td>id</td>
<td>fkaufr</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>
CREATE TABLE R ( 
    ID int PRIMARY KEY,
    a int
)

CREATE TABLE S ( 
    ID int PRIMARY KEY,
    FKaufR int REFERENCES R
    ON DELETE CASCADE
)
CASCADE: Daten aus R löschen...

DELETE FROM R
WHERE ID = 2

Query returned successfully: one row affected, 20 ms execution time.

vorher

nachher
SET DEFAULT

CREATE TABLE R ( 
    ID int PRIMARY KEY,
    a int
)

CREATE TABLE S ( 
    ID int PRIMARY KEY,
    FKaufR int DEFAULT 3 REFERENCES R ON DELETE SET DEFAULT
)
SET DEFAULT: Daten aus R löschen...

DELETE FROM R
WHERE ID=2

Query returned successfully: one row affected, 20 ms execution time.
DROP TABLE CASCADE

DROP TABLE  
R

ERROR: cannot drop table r because other objects depend on it
DETAIL: constraint s_fkauf_r_fkey on table s depends on table r
HINT: Use DROP ... CASCADE to drop the dependent objects too.

DROP TABLE  
R  CASCADE

vorher

<table>
<thead>
<tr>
<th>id</th>
<th>fkaufr</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>id</th>
<th>a</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>47</td>
</tr>
<tr>
<td>2</td>
<td>42</td>
</tr>
<tr>
<td>3</td>
<td>32</td>
</tr>
</tbody>
</table>

nachher

<table>
<thead>
<tr>
<th>id</th>
<th>fkaufr</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>
Effekt von DROP TABLE CASCADE

CREATE TABLE S (  
    ID int PRIMARY KEY,  
    FKaufr int DEFAULT 3
)