



Simulating enums

Restricting values to a predefined
list



We want to limit values to members of some list

Since we are talking about limiting values, we should probably use some kind of constraint. But what?

Example 1 - using IN(list)

One way is to have a check constraint that checks that the value is in a hard coded list:

```
sqlite> select 'ifk' in ('aik', 'hif', 'dif');
```

```
0
```

```
sqlite> select 'ifk' in ('aik', 'hif', 'dif', 'ifk');
```

```
1
```

```
sqlite> create table teams(team text primary key  
    check (team in ('aik', 'liverpool', 'ifk', 'bajen', 'gais')) );
```

```
sqlite> insert into teams values('öis');
```

```
Error: CHECK constraint failed: teams
```

```
sqlite> insert into teams values('ifk');
```

Problem with hard coded lists?

...is that they are hard coded!

If we decide to add an element to the list, we'd have to recreate or alter the table definition...

Example 2 - Using select to generate the list?

```
create table teams(team text primary key  
                  check (team in (select team from teams_enum)) );
```

Error: subqueries prohibited in CHECK constraints

Example 2 - solution

```
-- Solution: use foreign key
sqlite> create table teams(
            team text primary key,
            foreign key(team) references teams_enum(team) );
sqlite> insert into teams values('ifk');
sqlite> insert into teams values('öis');
Error: FOREIGN KEY constraint failed
```