CREATE DATABASE translators;

CREATE TABLE employees (

employee\_id INT NOT NULL,

first\_name VARCHAR(30) NOT NULL,

last\_name VARCHAR(30) NOT NULL,

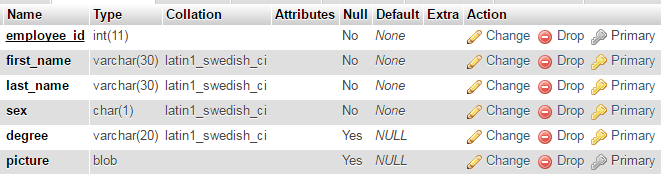
sex CHAR(1) NOT NULL CHECK (sex IN ('m', 'f')),

degree VARCHAR(20),

picture BLOB,

PRIMARY KEY (employee\_id)

);



INSERT INTO employees(employee\_id, first\_name, last\_name, sex, degree)

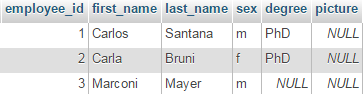
VALUES (1,'Carlos','Santana','m', 'PhD');

INSERT INTO employees(employee\_id, first\_name, last\_name, sex, degree)

VALUES (2,'Carla','Bruni','f', 'PhD');

INSERT INTO employees(employee\_id, first\_name, last\_name, sex)

VALUES (3,'Marconi','Mayer','m');



Provera check contraint na sex koloni

INSERT INTO employees(employee\_id, first\_name, last\_name, sex)

VALUES (4,'Stella','Pioni','g');

Ovo je proslo sto znaci da mi check constraint ne radi!!!



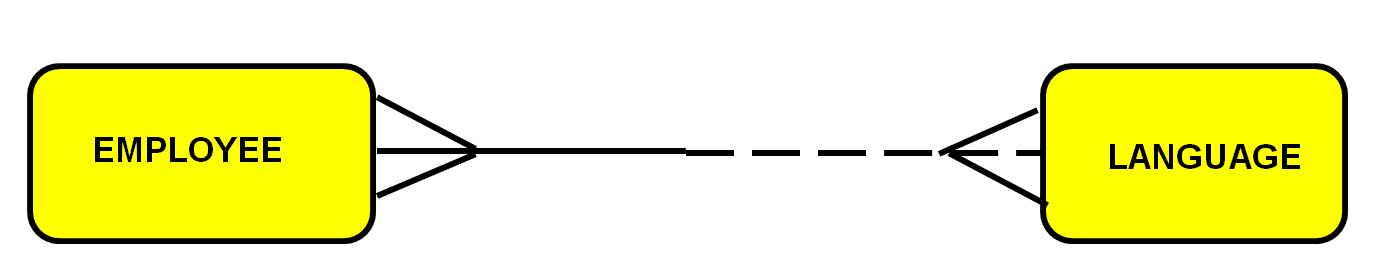
<http://www.w3resource.com/mysql/creating-table-advance/constraint.php>

The CHECK clause is parsed but ignored by all storage engines!!! The reason for accepting but ignoring syntax clauses is for compatibility, to make it easier to port code from other SQL servers

Predlozeno resenje pisanje trigera. Kakva budalastina ovaj mysql, da pisem trigere za ovako nesto.

Idem bez check constraint.

## ERD

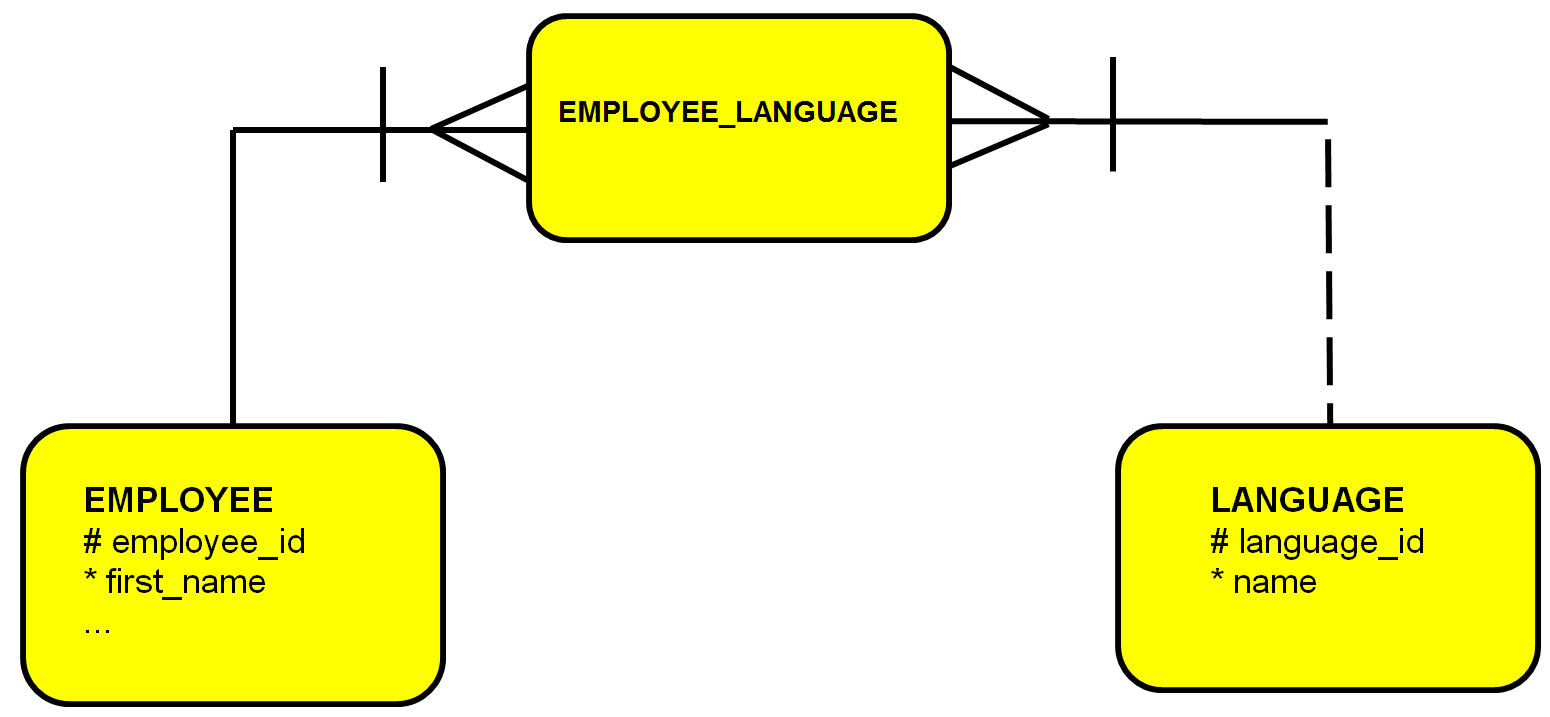


Employee must speak one or more languages.

Each language may be spoken by one or more employees.

|  |  |
| --- | --- |
| Attributes of employee: | Attributes of language: |
| # employee\_id  \* first\_name  \* last \_name  \* sex  o degree  o picture | # language\_id  \* name |

## Transforming M:M relationship



I could add level of language knowledge in EMPLOYEE\_LANGUAGE entity.

## Mapping

|  |  |  |  |
| --- | --- | --- | --- |
| **EMPLOYEES** (EPE) | | | |
| *tip ključa* | *opcionalnost* | *naziv kolone* | *tip podataka* |
| pk | \* | employee\_id | INT |
|  | \* | first\_name | VARCHAR(30) |
|  | \* | last\_name | VARCHAR(30) |
|  | \* | sex | CHAR(1) |
|  | o | degree | VARCHAR(20) |
|  | o | picture | BLOB |

|  |  |  |  |
| --- | --- | --- | --- |
| **LANGUAGES** (LGE) | | | |
| *tip ključa* | *opcionalnost* | *naziv kolone* | *tip podataka* |
| pk | \* | language\_id | INT |
|  | \* | name | VARCHAR(30) |

|  |  |  |  |
| --- | --- | --- | --- |
| **EMPLOYEES\_LANGUAGES** (ELE) | | | |
| *tip ključa* | *opcionalnost* | *naziv kolone* | *tip podataka* |
| pk, fk1 | \* | employee\_id | INT |
| pk, fk2 | \* | language\_id | INT |

Kako ugraditi pravilo da svaki zaposleni mora da govori bar jedan jezik?

svi primarni kljucevi tabele employees moraju da postoje negde u tabeli employees\_languages

DROP TABLE employees;

CREATE TABLE employees (

employee\_id INT NOT NULL,

first\_name VARCHAR(30) NOT NULL,

last\_name VARCHAR(30) NOT NULL,

sex CHAR(1) NOT NULL,

degree VARCHAR(20),

picture BLOB,

PRIMARY KEY (employee\_id)

);

CREATE TABLE languages (

language\_id INT NOT NULL,

name VARCHAR(30) NOT NULL,

PRIMARY KEY (language\_id)

);

CREATE TABLE employees\_languages (

employee\_id INT NOT NULL,

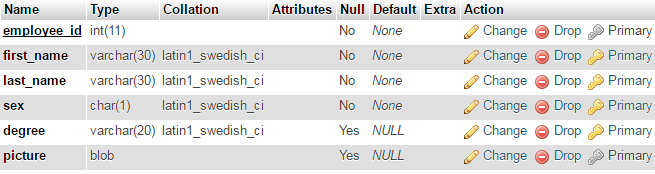
language\_id INT NOT NULL,

CONSTRAINT ele\_pk PRIMARY KEY(employee\_id, language\_id),

CONSTRAINT ele\_fk1 FOREIGN KEY(employee\_id) REFERENCES employees (employee\_id),

CONSTRAINT ele\_fk2 FOREIGN KEY(language\_id) REFERENCES languages (language\_id)

);







INSERT INTO employees(employee\_id, first\_name, last\_name, sex, degree)

VALUES (1,'Carlos','Santana','m', 'PhD');

INSERT INTO employees(employee\_id, first\_name, last\_name, sex, degree)

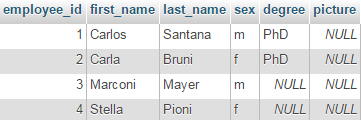
VALUES (2,'Carla','Bruni','f', 'PhD');

INSERT INTO employees(employee\_id, first\_name, last\_name, sex)

VALUES (3,'Marconi','Mayer','m');

INSERT INTO employees(employee\_id, first\_name, last\_name, sex)

VALUES (4,'Stella','Pioni','f');



INSERT INTO languages(language\_id, name)

VALUES (1, 'English');

INSERT INTO languages(language\_id, name)

VALUES (2, 'German');

INSERT INTO languages(language\_id, name)

VALUES (3, 'Italian');



INSERT INTO employees\_languages (employee\_id, language\_id)

VALUES (1, 1);

INSERT INTO employees\_languages (employee\_id, language\_id)

VALUES (1, 2);

INSERT INTO employees\_languages (employee\_id, language\_id)

VALUES (2, 1);

INSERT INTO employees\_languages (employee\_id, language\_id)

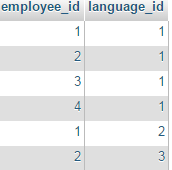
VALUES (2, 3);

INSERT INTO employees\_languages (employee\_id, language\_id)

VALUES (3, 1);

INSERT INTO employees\_languages (employee\_id, language\_id)

VALUES (4, 1);



**Provera foreign key da li radi za ovu tabelu**

Ubacujem jezik koji ne postoji u tabeli languages:

INSERT INTO employees\_languages (employee\_id, language\_id)

VALUES (1, 4);

ne dopusta

#1452 - Cannot add or update a child row: a foreign key constraint fails (`translators`.`employees\_languages`, CONSTRAINT `ele\_fk2` FOREIGN KEY (`language\_id`) REFERENCES `languages` (`language\_id`))

Ubacujem zaposlenog koji ne postoji u tabeli employees:

INSERT INTO employees\_languages (employee\_id, language\_id)

VALUES (10, 4);

ne dopusta

#1452 - Cannot add or update a child row: a foreign key constraint fails (`translators`.`employees\_languages`, CONSTRAINT `ele\_fk1` FOREIGN KEY (`employee\_id`) REFERENCES `employees` (`employee\_id`))