Set up Employees Sample Database in MySQL

INF 551

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Installation

- Fetch the package
  - wget https://launchpad.net/test-db/employees-db-1/1.0.6/+download/employees_db-full-1.0.6.tar.bz2

- Uncompress it
  - tar xvf employees_db-full-1.0.6.tar.bz2

Run setup script

- cd employees_db

- mysql -u root -p < employees.sql

dept_emp
- 🔑 emp_no INT(11)
- 🔑 dept_no CHAR(4)
- ◇ from_date DATE
- ◇ to_date DATE

Indexes
- PRIMARY
- emp_no
- dept_no

salaries
- 🔑 emp_no INT(11)
- ◇ salary INT(11)
- 🔑 from_date DATE
- ◇ to_date DATE

Indexes
- PRIMARY
- emp_no

departments
- 🔑 dept_no CHAR(4)
- ◇ dept_name VARCHAR(40)

Indexes
- PRIMARY
- dept_name

employees
- 🔑 emp_no INT(11)
- ◇ birth_date DATE
- ◇ first_name VARCHAR(14)
- ◇ last_name VARCHAR(16)
- ◇ gender ENUM('M','F')
- ◇ hire_date DATE

Indexes
- PRIMARY

dept_manager
- 🔑 dept_no CHAR(4)
- 🔑 emp_no INT(11)
- ◇ from_date DATE
- ◇ to_date DATE

Indexes
- PRIMARY
- emp_no
- dept_no

titles
- 🔑 emp_no INT(11)
- 🔑 title VARCHAR(50)
- 🔑 from_date DATE
- ◇ to_date DATE

Indexes
- PRIMARY
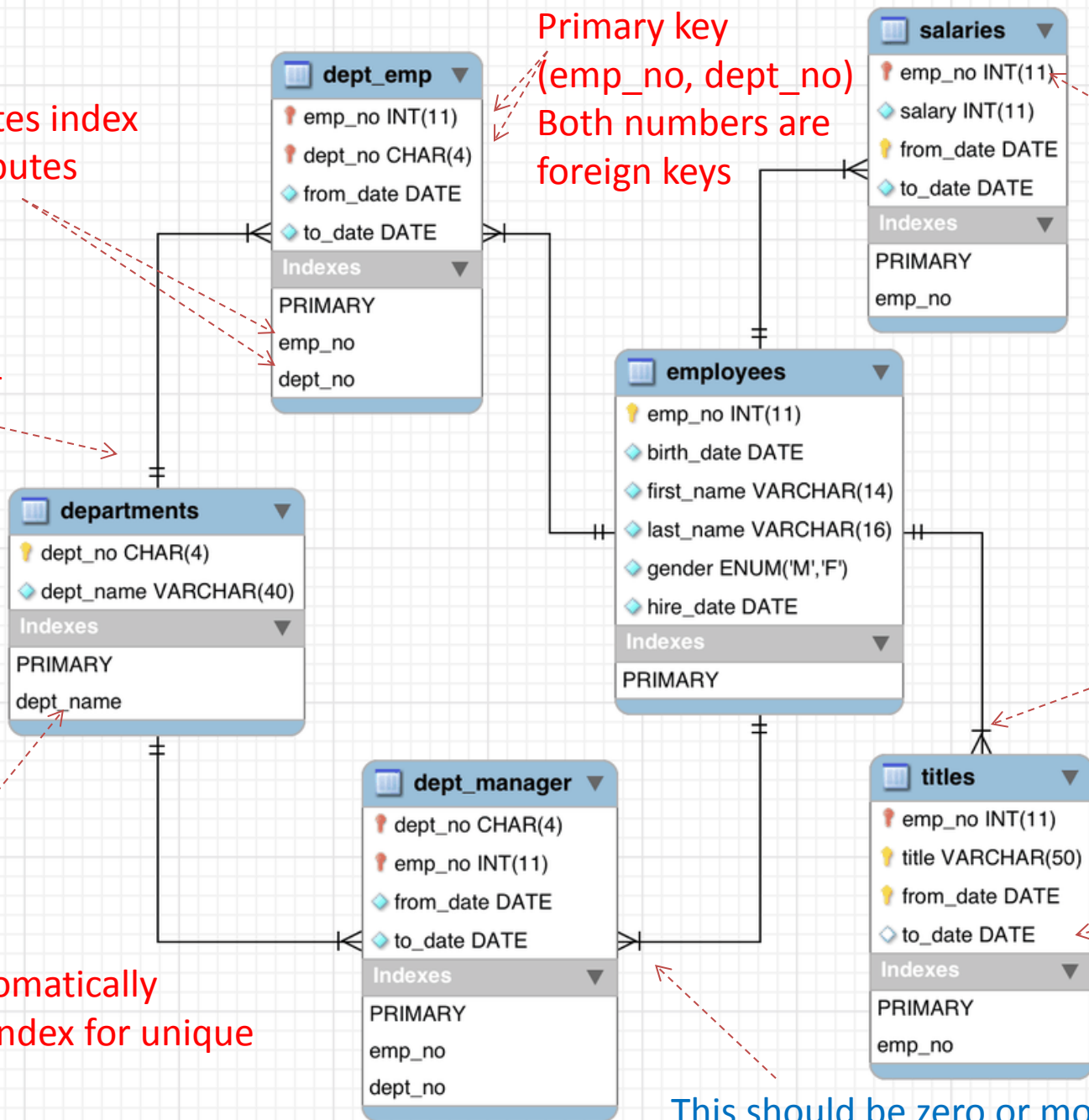- emp_no

MySQL creates index for key attributes

Primary key (emp_no, dept_no) Both numbers are foreign keys

INT(11) 4 byte integer Displayed in at most 11 characters

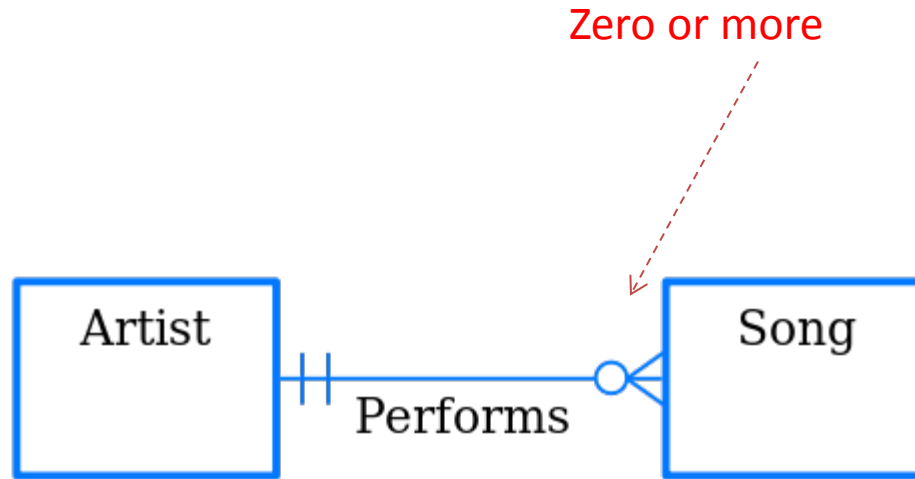1 & only 1

1 or more

Can be null

Unique key (MySQL automatically creates an index for unique attribute)

This should be zero or more
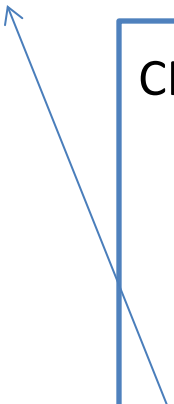
4

Crow's foot notation

Departments table

- Two indices will be automatically created
  - One for primary key
  - The other unique key

```
CREATE TABLE departments (
    dept_no     CHAR(4)        NOT NULL,
    dept_name   VARCHAR(40)    NOT NULL,
    PRIMARY KEY (dept_no),
    UNIQUE  KEY (dept_name)
);
```

Department-Employee table

Create index for key attribute

```
CREATE TABLE dept_emp (
    emp_no      INT         NOT NULL,
    dept_no     CHAR(4)        NOT NULL,
    from_date   DATE        NOT NULL,
    to_date     DATE        NOT NULL,
    KEY         (emp_no),
    KEY         (dept_no),
    FOREIGN KEY (emp_no)  REFERENCES employees   (emp_no)  ON
DELETE CASCADE,
    FOREIGN KEY (dept_no) REFERENCES departments (dept_no) ON
DELETE CASCADE,
    PRIMARY KEY (emp_no,dept_no)
);
```