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# Employees Sample Database

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## 1 Preface and Legal Notices

This document describes the `employees` sample database—its history, installation, structure and usage.

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## 2 Introduction

This document describes the Employees sample database.

The Employees sample database was developed by Patrick Crews and Giuseppe Maxia and provides a combination of a large base of data (approximately 160MB) spread over six separate tables and consisting of 4 million records in total. The structure is compatible with a wide range of storage engine types. Through an included data file, support for partitioned tables is also provided.

In addition to the base data, the Employees database also includes a suite of tests that can be executed across the test data to ensure the integrity of the data that you have loaded. This should help ensure the quality of the data during initial load, and can be used after usage to ensure that no changes have been made to the database during testing.

## 3 Installation

The Employees database is available from [Employees DB on GitHub](#). You can download a prepackaged archive of the data, or access the information through Git.

To use the Zip archive package, download the archive and unpack it using [WinZip](#) or another tool that can read `.zip` files, then change location into the unpacked package directory. For example, using `unzip`, execute these commands:

```
shell> unzip test_db-master.zip
shell> cd test_db-master/
```

The Employees database is compatible with several different storage engines, with the InnoDB engine enabled by default. Edit the `employees.sql` file and adjust the comments to choose a different storage engine:

```
set storage_engine = InnoDB;
-- set storage_engine = MyISAM;
-- set storage_engine = Falcon;
-- set storage_engine = PBXT;
-- set storage_engine = Maria;
```

To import the data into your MySQL instance, load the data through the `mysql` command-line tool:

```
shell> mysql -t < employees.sql
+-----+
| INFO |
+-----+
| CREATING DATABASE STRUCTURE |
+-----+
+-----+
| INFO |
+-----+
| storage engine: InnoDB |
+-----+
+-----+
| INFO |
+-----+
| LOADING departments |
+-----+
+-----+
| INFO |
+-----+
| LOADING employees |
+-----+
+-----+
| INFO |
+-----+
| LOADING dept_emp |
+-----+
+-----+
| INFO |
+-----+
| LOADING dept_manager |
+-----+
+-----+
| INFO |
+-----+
| LOADING titles |
+-----+
+-----+
| INFO |
+-----+
| LOADING salaries |
+-----+
```

To test that the data you have loaded matches the expected results, run the test suite. For more information, see [Section 4, “Validating the Employee Data”](#).

## 4 Validating the Employee Data

You can validate the Employee data using two methods, `md5` and `sha`. Two SQL scripts are provided for this purpose, `test_employees_sha.sql` and `test_employees_md5.sql`. To run the tests, use `mysql`:

```
shell>time mysql -t < test_employees_sha.sql
+-----+
| INFO |
+-----+
| TESTING INSTALLATION |
+-----+
```

## Employees Sample Database

table_name	expected_records	expected_crc
employees	300024	4d4aa689914d8fd41db7e45c2168e7dcb9697359
departments	9	4b315afa0e35ca6649df897b958345bcb3d2b764
dept_manager	24	9687a7d6f93ca8847388a42a6d8d93982a841c6c
dept_emp	331603	f16f6ce609d032d6b1b34748421e9195c5083da8
titles	443308	d12d5f746b88f07e69b9e36675b6067abb01b60e
salaries	2844047	b5a1785c27d75e33a4173aaa22ccf41ebd7d4a9f
table_name	found_records	found_crc
employees	300024	4d4aa689914d8fd41db7e45c2168e7dcb9697359
departments	9	4b315afa0e35ca6649df897b958345bcb3d2b764
dept_manager	24	9687a7d6f93ca8847388a42a6d8d93982a841c6c
dept_emp	331603	f16f6ce609d032d6b1b34748421e9195c5083da8
titles	443308	d12d5f746b88f07e69b9e36675b6067abb01b60e
salaries	2844047	b5a1785c27d75e33a4173aaa22ccf41ebd7d4a9f
table_name	records_match	crc_match
employees	OK	ok
departments	OK	ok
dept_manager	OK	ok
dept_emp	OK	ok
titles	OK	ok
salaries	OK	ok

real 0m37.067s

user 0m0.007s

sys 0m0.009s

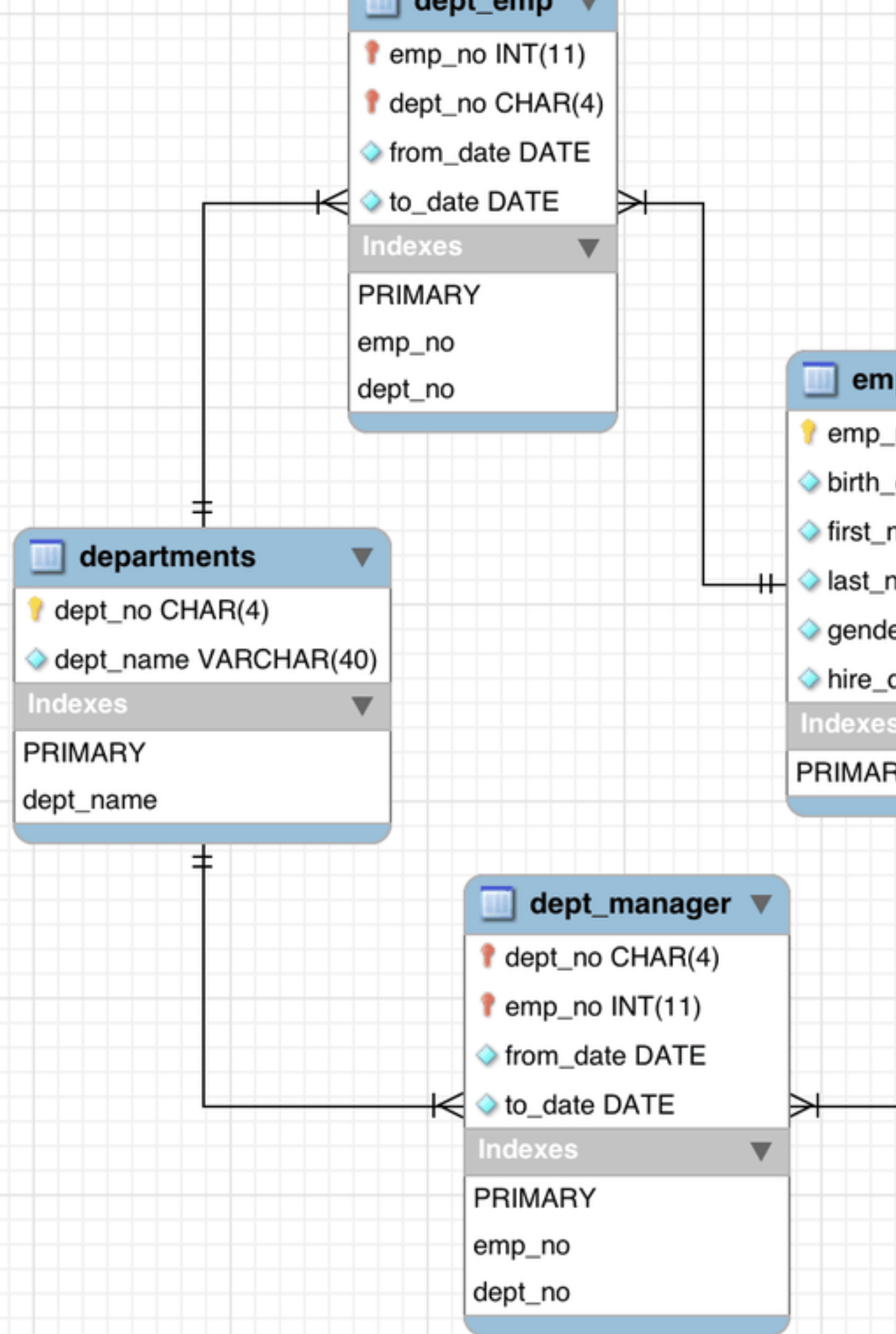
shell>time mysql -t < test\_employees\_md5.sql

table_name	expected_records	expected_crc
employees	300024	4ec56ab5ba37218d187cf6ab09celaa1
departments	9	d1af5e170d2d1591d776d5638d71fc5f
dept_manager	24	8720e2f0853ac9096b689c14664f847e
dept_emp	331603	c2c4fc7f0506e50959a6c67ad55cac31
titles	443308	bfa016c472df68e70a03facafalbc0a8
salaries	2844047	fd220654e95aealb169624ffe3fca934
table_name	found_records	found_crc
employees	300024	4ec56ab5ba37218d187cf6ab09celaa1
departments	9	d1af5e170d2d1591d776d5638d71fc5f
dept_manager	24	8720e2f0853ac9096b689c14664f847e
dept_emp	331603	c2c4fc7f0506e50959a6c67ad55cac31
titles	443308	bfa016c472df68e70a03facafalbc0a8
salaries	2844047	fd220654e95aealb169624ffe3fca934
table_name	records_match	crc_match
employees	OK	ok
departments	OK	ok
dept_manager	OK	ok
dept_emp	OK	ok
titles	OK	ok
salaries	OK	ok

```
real 0m33.453s  
user 0m0.007s  
sys 0m0.009s
```

## 5 Employees Structure

The following diagram provides an overview of the structure of the Employees sample database.



## 6 License for the Employees Database

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