Employees Sample Database

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For help with using MySQL, please visit the MySQL Forums, where you can discuss your issues with other MySQL users.

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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:

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

The Employees database is compatible with several different storage engines, with the InnoDB engine enabled by default. Edit the <code>employees.sql</code> 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:

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:

```
$>time mysql -t < test_employees_sha.sql</pre>
INFO
| TESTING INSTALLATION |
    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
real 0m37.067s
user 0m0.007s
sys 0m0.009s
$>time mysql -t < test_employees_md5.sql</pre>
| TESTING INSTALLATION |
| table_name | expected_records | expected_crc
```

employees	30002	24 4	lec56ab!	5ba37218d187cf6ab09ce1aa1	
departments		9 d	llaf5el'	70d2d1591d776d5638d71fc5f	
dept_manager	2	24 8	3720e2f	0853ac9096b689c14664f847e	
dept_emp	33160	03 c	2c4fc7	E0506e50959a6c67ad55cac31	
titles	44330	08 b	fa016c	472df68e70a03facafa1bc0a8	
salaries	284404	47 f	d22065	1e95aea1b169624ffe3fca934	
		+			
table_name	name found_records		found_crc +		
employees	30002	24 4	lec56ab!	5ba37218d187cf6ab09ce1aa1	
departments				70d2d1591d776d5638d71fc5f	
dept_manager	_	1 -		0853ac9096b689c14664f847e	
dept_emp	33160	-		E0506e50959a6c67ad55cac31	
titles	44330			472df68e70a03facafa1bc0a8	
salaries	284404	47 f	d22065	1e95aea1b169624ffe3fca934	
	·	+			
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			
	+	+		+	
eal 0m33.453s					
ser 0m0.007s					
ys 0m0.009s					

5 Employees Structure

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

salaries remp_no INT(11) dept_emp ▼ salary INT(11) remp_no INT(11) from_date DATE † dept_no CHAR(4) to_date DATE from_date DATE to_date DATE PRIMARY emp_no PRIMARY emp_no employees dept_no emp_no INT(11) birth_date DATE first_name VARCHAR(14) departments last_name VARCHAR(16) dept_no CHAR(4) gender ENUM('M','F') dept_name VARCHAR(40) hire_date DATE **PRIMARY** PRIMARY dept_name titles dept_manager remp_no INT(11) dept_no CHAR(4) title VARCHAR(50) remp_no INT(11) 💡 from_date DATE from date DATE to_date DATE to_date DATE **PRIMARY PRIMARY** emp_no emp_no dept_no

Figure 1 The Employees Schema

6 License for the Employees Database

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