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BENEFITS OF THIRD-PARTY TOOLS FOR MYSQL

INTRO

Adding third-party tools can be an effective method of enhancing software, since they may provide additional features lacking in the original software. MySQL is no exception to this general rule, as many applications work on this database platform. A feature-rich tool for MySQL can help a database administrator (DBA) manage their databases more efficiently by streamlining many of the daily tasks that drain their productivity.

Many of these benefits involve the ability of a graphical user interface (GUI) to handle schema and data synchronization tasks visually. That allows DBAs to apply schema changes easily when migrating them from a test to a production environment. Third-party software with backup capability can also help protect a database's contents. The following list shows some of the most important ways that third-party software can make MySQL DBAs more productive.

AUTOMATE MYSQL SERVER SYNCHRONIZATION

DBAs often need to synchronize MySQL Servers to address specific problems manually. However, automating this process as much as practical is a great way to ensure that synchronization doesn't introduce data inconsistencies.

A comprehensive MySQL management tool may include a job agent that keeps databases synced. This feature provides a multithreaded application that schedules automatic data synchronization between two MySQL hosts. Using interactive wizards to perform this task allows DBAs to define jobs without needing to know about extended markup language (XML) or schemas. These tools should be able to run on any host, eliminating the need to run them on MySQL hosts.

Job agents can use an algorithm to generate checksums, allowing them to identify changes in the database instances. This capability reduces the sync's throughput, since it only needs to move the rows that were changed since the last sync. These job agents can also run in attended mode, allowing the DBA to compare data between source and target before deciding how to synchronize the data. They can also generate the scripts needed to synchronize the schema. Automatic synchronization thus provides DBAs with peace of mind by ensuring databases remain consistent throughout their organization.

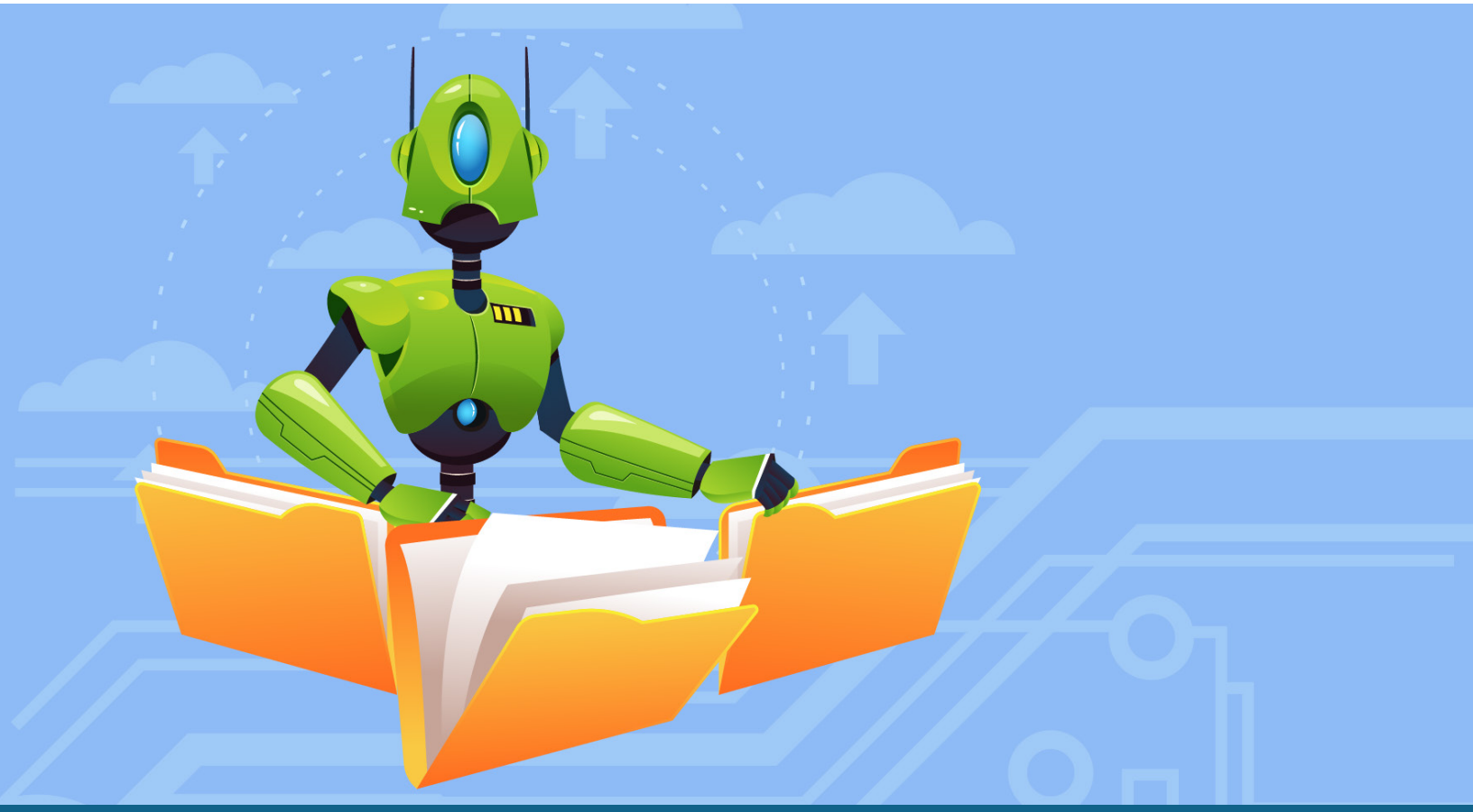
STREAMLINE SCHEDULED BACKUPS FOR MYSQL DATABASES

Third-party tools for MySQL may back up databases automatically, which is a major part of database management. A backup wizard allows a DBA to schedule backups without leaving the tool, making it easy to ensure that the database's contents remain protected. It can also provide many features that allow the DBA to fine-tune the specific data to back up. This capability is a great way to reduce the DBA's workload while eliminating the risk of missing a backup.

Another powerful feature of backup tools is the ability to export databases as SQL scripts. Tools with this feature can save selected objects into files, allowing DBAs to export just schema, or both the schema and data. The session then establishes the connections needed to execute the operation.

USER MANAGEMENT

Third-party MySQL tools can serve as a comprehensive platform for managing MySQL instances. They can be context aware, meaning a tool can display a selected object and privileges that are available for that object. Once a DBA decides on the level of privileges, the user should have, the DBA can select the specific privileges for that user. These features facilitate user management by minimizing the chances of the DBA incorrectly assigning an elevated privilege. User management tools can also prevent DBAs from defining redundant privileges, which MySQL allows.



QUERY PROFILES

Query profilers are another tool that can help DBAs. They display information on executed queries such as their performance, including the use of indexes. MySQL's Optimizer often rewrites queries to run more efficiently, so it's often helpful for DBAs to know the query that actually executes. Additional information that query profilers can provide for executed queries include internal operations, changes in status and warnings.

IMPORT EXTERNAL DATA

The ability to import external data allows a MySQL tool to transfer data from any ODBC-compliant data source to MySQL. These tools may include additional features such as incremental imports and scheduling import sessions. They may also use an interactive wizard to define the parameters of the import job.

SCHEDULE QUERIES

A tool that can schedule queries can generate emails informing a DBA of the query's results. DBAs typically use this feature to run queries for schedule maintenance outside of normal work hours. An interactive wizard can also validate the queries before scheduling them.

MINIMAL DEPENDENCIES

Third-party MySQL tools should have minimal dependencies to ensure they function in a variety of MySQL implementations. These dependencies include runtimes like Java and .NET in addition to database abstraction layers like JDBC and ODBC. MySQL tools should also have few dependencies on third-party libraries like MFC and STL, resulting in a compact, efficient executable.

ADDITIONAL BENEFITS

Additional benefits of intuitive MySQL tools include schema design functions such as optimization and documentation. They should also allow DBAs to create, drop and alter tables as well as diagnose tables that perform poorly. The ability to manage tables graphically is another capability that's highly useful to DBAs, including managing relationships, indexes and columns. These tools should also create secure connections to database servers via tunneling and secure socket layer (SSL).

IDERA'S SOLUTION

SQLyog helps database professionals to manage MySQL and MariaDB in physical, virtual, and cloud environments. Unlike its competition, it provides extensive database administration and development support including:

- comparing and synchronizing schema and data
- importing external data, scheduling backups
- scheduling and reporting on queries
- profiling queries

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