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MySQL Performance Tuning: Tips, Scripts and Tools

August 10, 2020 by Hayden James, in Blog Linux

With MySQL, [common configuration mistakes](#) can cause serious performance problems. In fact, if you misconfigure just one of the many config parameters, it can cripple performance. Of course, the performance of MySQL is often tied to the efficiency of your MySQL queries. It's important to ensure that your performance issues are not due to poorly written MySQL queries. You can use MySQL's slow query log, `log_queries_not_using_indexes` or APM tools which offer MySQL performance

[rwnds](#), and [other monitoring tools](#).

```

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# To copy files using checksum (-c) rather than time to detect if the file has
# changed. (Useful for validating backups):
rsync -avc <src> <dest>

# To copy contents of /src/foo to destination:
# This command will create /dest/foo if it does not already exist
rsync -avu <src> <dest>

# To explicitly copy <src> to <dest>
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# To copy file from local to remote over ssh with non standard port 1234 to
# destination folder in remoteuser's home directory:
rsync -avz -e "ssh -p1234" <source> <username>@<host>:<dest>
ubuntu:hydn ~ $>

```

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/ to place any recommended ended-settings based articles. now seek guidance with selecting an vary greatly case by case as d below the tips, are additional

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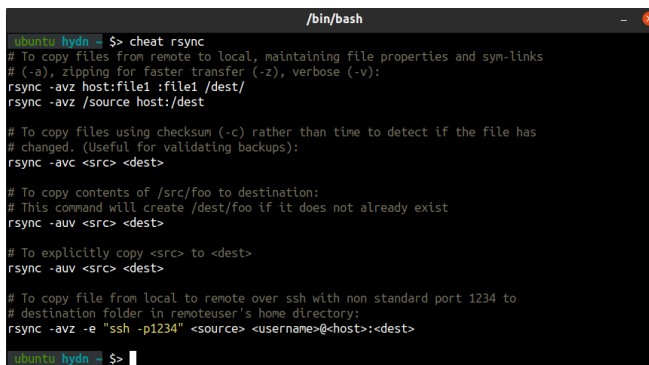
ormance and feature e would be to upgrade, upgrade, are.

If you are seeking additional features or flexibility you may already be using [MariaDB](#), or [Percona](#), which are enhanced drop-in replacements for MySQL Server. If you've seen notable improvements in using MariaDB or Percona over stock MySQL please share your experience below. They are both great options.

MySQL Performance Tuning Advice

Before continuing please have a look at the following MySQL performance tuning articles: [MySQL Database Performance: Avoid this common mistake](#) and note that [due to the limitations of MySQL query cache, it has been deprecated as of MySQL 5.7.20 and is removed in MySQL 8.0](#).

Other than the tuning scripts listed below, try to avoid online advice unless its via mysql.com or those that reference directly MySQL, Pecona's, or MariaDB articles or documentation. You will notice that both of the above blog posts reference or quote MySQL's docs. There's a ton of conflicting advice and



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× config changes with [official](#) mentoring to change MySQL's is. When there's doubt... stick comparisons, and time-tested firsthand

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SQL 5.6

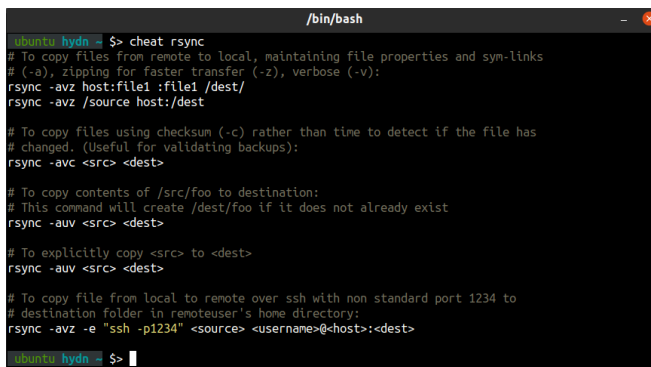
nts, MyISAM does not.

serve as basic guides, sometimes grievous misconfigured tact a professional to tune MySQL so-called embarrassing config in total DB size is less than 1GB.

Now, let's look at popular scripts and tools available for MySQL performance tuning: MySQLTuner, Tuning-Primer, MySQLreport, Percona Toolkit, and phpMyAdmin Advisor.

MySQLTuner

A script that is written in Perl that will assist you with your MySQL configuration and make recommendations for increased performance and stability.

A terminal window titled "/bin/bash" showing the output of the command "cheat rsync". The output lists various rsync options and their uses, such as copying files from remote to local, using checksums, and copying over SSH.

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Tuning-Primer

THE FOLLOWING COMMANDS ARE NOT COMPATIBLE WITH ALL VERSIONS OF
"SHOW VARIABLES LIKE..." TO COMPATIBLE WITH ALL VERSIONS OF



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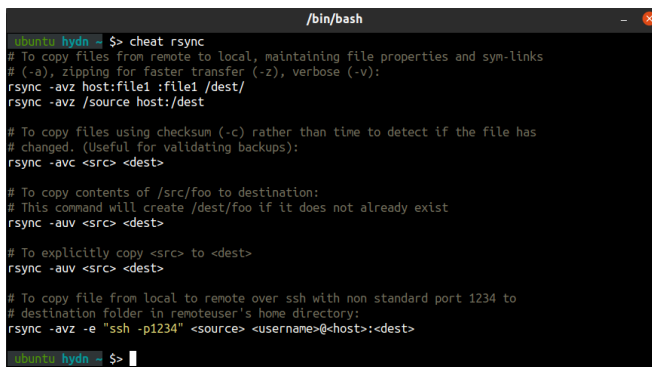
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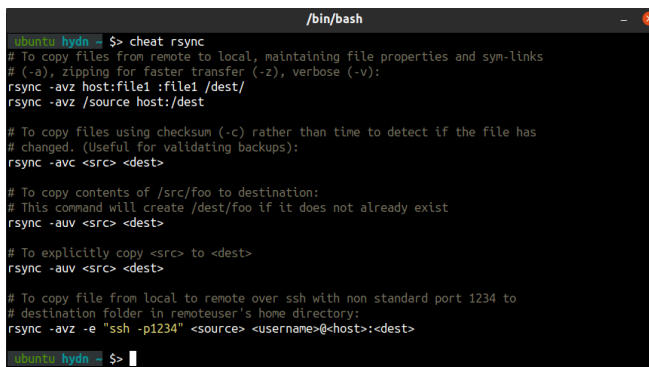
[j-primer version on Github](#) which

line tools, developed to perform a manually – freeing your DBAs for

logger, pt-diskstats, pt-duplicate-heartbeat, pt-index-usage, pt-mary, pt-mysql-summary, pt-secure-collect, pt-show-grants, pt-table-checksum, pt-table-explain.

phpMyAdmin Advisor

The Advisor system provides recommendations on server variables by analyzing MySQL status variables.



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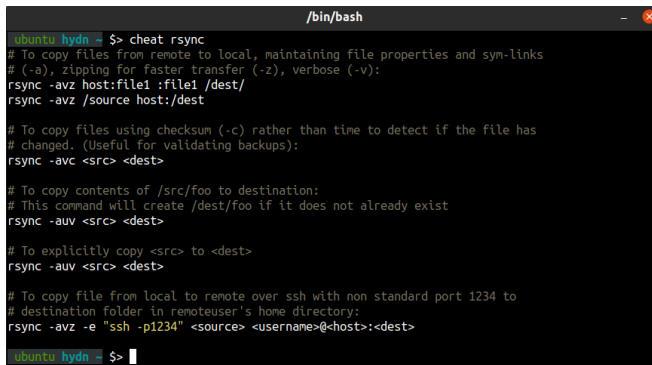
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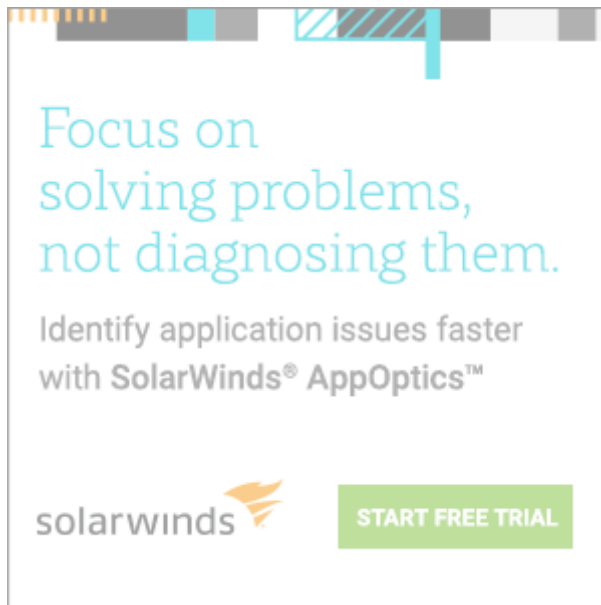
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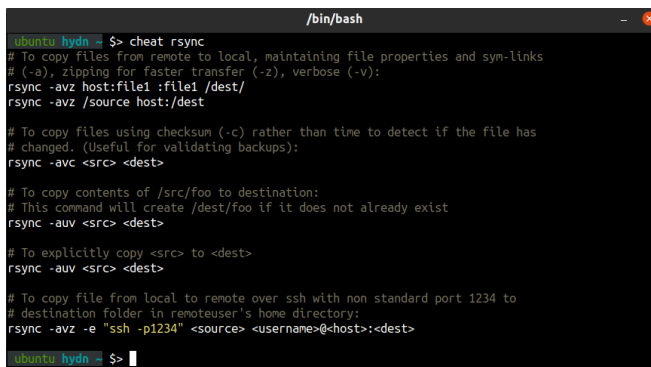
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