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Part 1: Given a corrupt MySQL database on a newly installed server, initialize MySQL and recover the database, providing a summary of database statistics and an after action report once it is fully operational.

In order to resolve this problem, I would reinstall and initialize the MYSQL database on the server by reinstalling and then using the mysql\_install\_db command. This will set up he directories that are needed. However, mysql 5.76 or later versions, Oracle has put this in and will initialize the database for you automatically, you can use --initialise or --initialize-insecure.

The mysqlbackup commands to perform a restore operation are copy-back-and-apply-log and copy-back. Normally, the restoration process requires the database server to be already shut down (or, at least not operating on the directory you are restoring the data to), except for restorations of backups created with the --use-tts option; see explanations below. The process copies the data files, logs, and other backed-up files from the backup directory back to their original locations, and performs any required post-processing on them.

The copy-back-and-apply-log command achieves two things: Extracts the backup from the image file and copies it to the data directory on the server to be restored and performs an apply log operation to the restored data to bring them up-to-date. The restored data includes the backup\_history table, where MySQL Enterprise Backup records details of each backup. The table allows you to perform future incremental backups using the --incremental-base=history:last\_backup option.

When performing a full restore (for example, when the backup data is used to set up a new MySQL server or used to replace all data of an existing MySQL server), make sure the target data directories are all clean, containing no old or unwanted data files (this might require manual removal of files at the locations specified by both the --datadir and --innodb\_data\_file\_path options); otherwise, add the --force option to the restore command to overwrite the old data.

Next you can use Ps-ef | grep ’mysql’ or systemctl status mysqld commands to give you the status of your system and everything that is running.

SOURCE: <https://dev.mysql.com/doc/mysql-enterprise-backup/4.1/en/restore.html>

Part 2: Within that database is a stored procedure that is inefficient. Improve either the database or the procedure to avoid long wait times.

DROP {PROCEDURE | FUNCTION} [IF EXISTS] sp\_name

This statement is used to drop a stored procedure or function. You need to have the ALTER ROUTINE privilege for the routine in order to complete.

SOURCE: <https://dev.mysql.com/doc/refman/5.7/en/drop-procedure.html>