



INSTITUTO TECNOLÓGICO SUPERIOR DE JEREZ



INGENIERÍA EN SISTEMAS COMPUTACIONALES

Administración de Base de Datos

Reporte de Practica: MySQL SLAP

DOCENTE: MTI, ISC Salvador Acebedo Sandoval

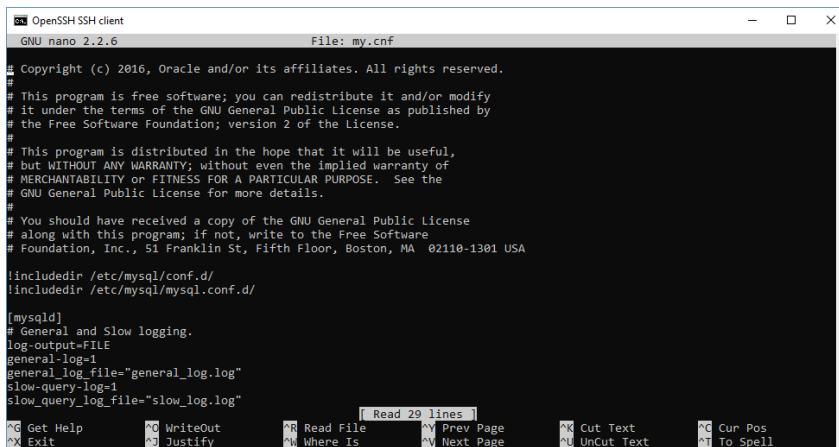
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Objetivo

Conocer como es que se puede verificar cual es la capacidad de demanda del servidor por parte de usuarios para poder prevenir que un sistema falle, además de verificar como es que se activan las bitácoras en el servidor Debian y comprobar cuál es la información que se genera después de realizar las pruebas.

Procedimiento

Para comenzar se activan las bitácoras, esto modificando el archivo my.cnf y activándolas de la siguiente manera:



```
OpenSSH SSH client
GNU nano 2.2.6      File: my.cnf

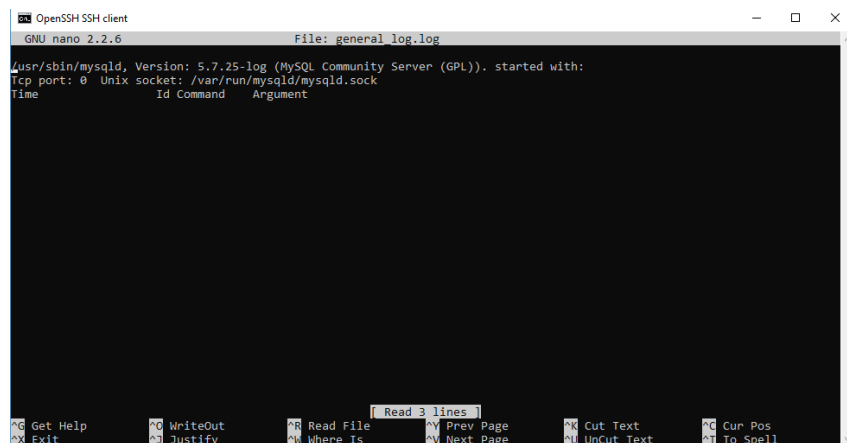
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!includedir /etc/mysql/conf.d/
!includedir /etc/mysql/mysql.conf.d/

[mysqld]
# General and Slow logging.
log-output=FILE
general-log=1
general_log_file="general_log.log"
slow-query-log=1
slow_query_log_file="slow_log.log"

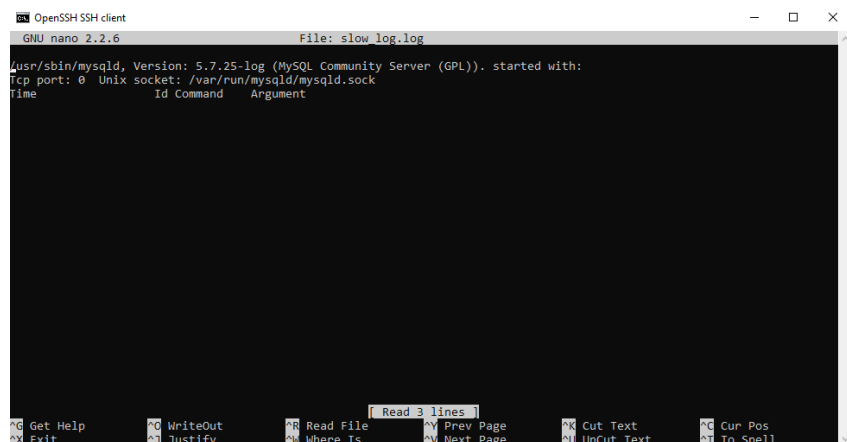
[ Read 29 lines ]
^G Get Help      ^O WriteOut     ^R Read File    ^V Prev Page    ^K Cut Text     ^C Cur Pos
^X Exit          ^J Justify      ^W Where Is     ^N Next Page    ^U UnCut Text   ^T To Spell
```

Una vez activadas las bitácoras y reiniciando el servidor podemos notar que los archivos generados se encuentran vacíos.



```
OpenSSH SSH client
GNU nano 2.2.6 File: general_log.log
/usr/sbin/mysqld, Version: 5.7.25-log (MySQL Community Server (GPL)). started with:
Tcp port: 0 Unix socket: /var/run/mysqld/mysqld.sock
Time
Id Command Argument

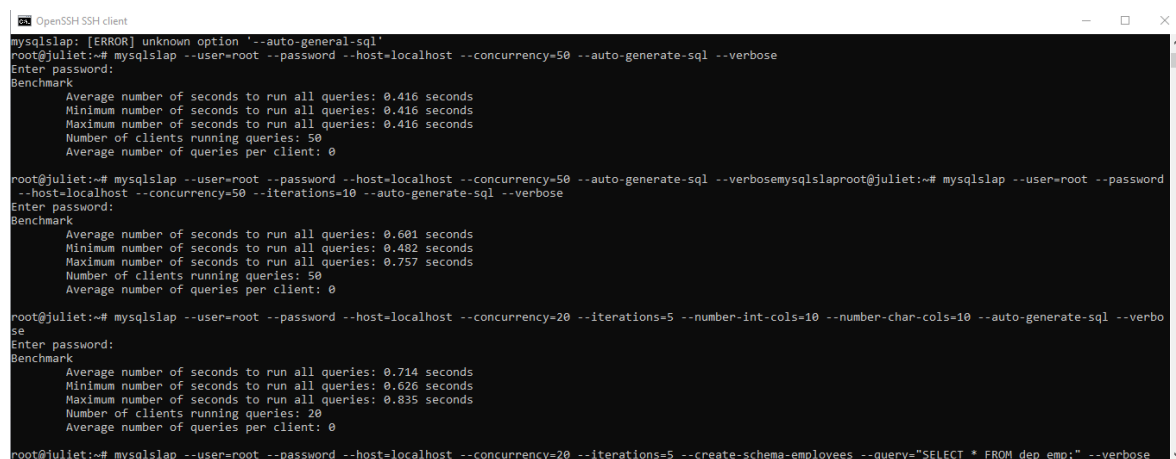
Get Help WriteOut Read File Read 3 lines Prev Page Cut Text Cur Pos
Exit Justify Where Is Next Page Uncut Text To Spell
```



```
OpenSSH SSH client
GNU nano 2.2.6 File: slow_log.log
/usr/sbin/mysqld, Version: 5.7.25-log (MySQL Community Server (GPL)). started with:
Tcp port: 0 Unix socket: /var/run/mysqld/mysqld.sock
Time
Id Command Argument

Get Help WriteOut Read File Read 3 lines Prev Page Cut Text Cur Pos
Exit Justify Where Is Next Page Uncut Text To Spell
```

Se ejecutan diversas pruebas de estrés para observar como es que reaccional el servidor ante diversas pruebas.



```
OpenSSH SSH client
mysqlslap: [ERROR] unknown option '--auto-general-sql'
root@juliet:~# mysqlslap --user=root --password --host=localhost --concurrency=50 --auto-generate-sql --verbose
Enter password:
Benchmark
  Average number of seconds to run all queries: 0.416 seconds
  Minimum number of seconds to run all queries: 0.416 seconds
  Maximum number of seconds to run all queries: 0.416 seconds
  Number of clients running queries: 50
  Average number of queries per client: 0

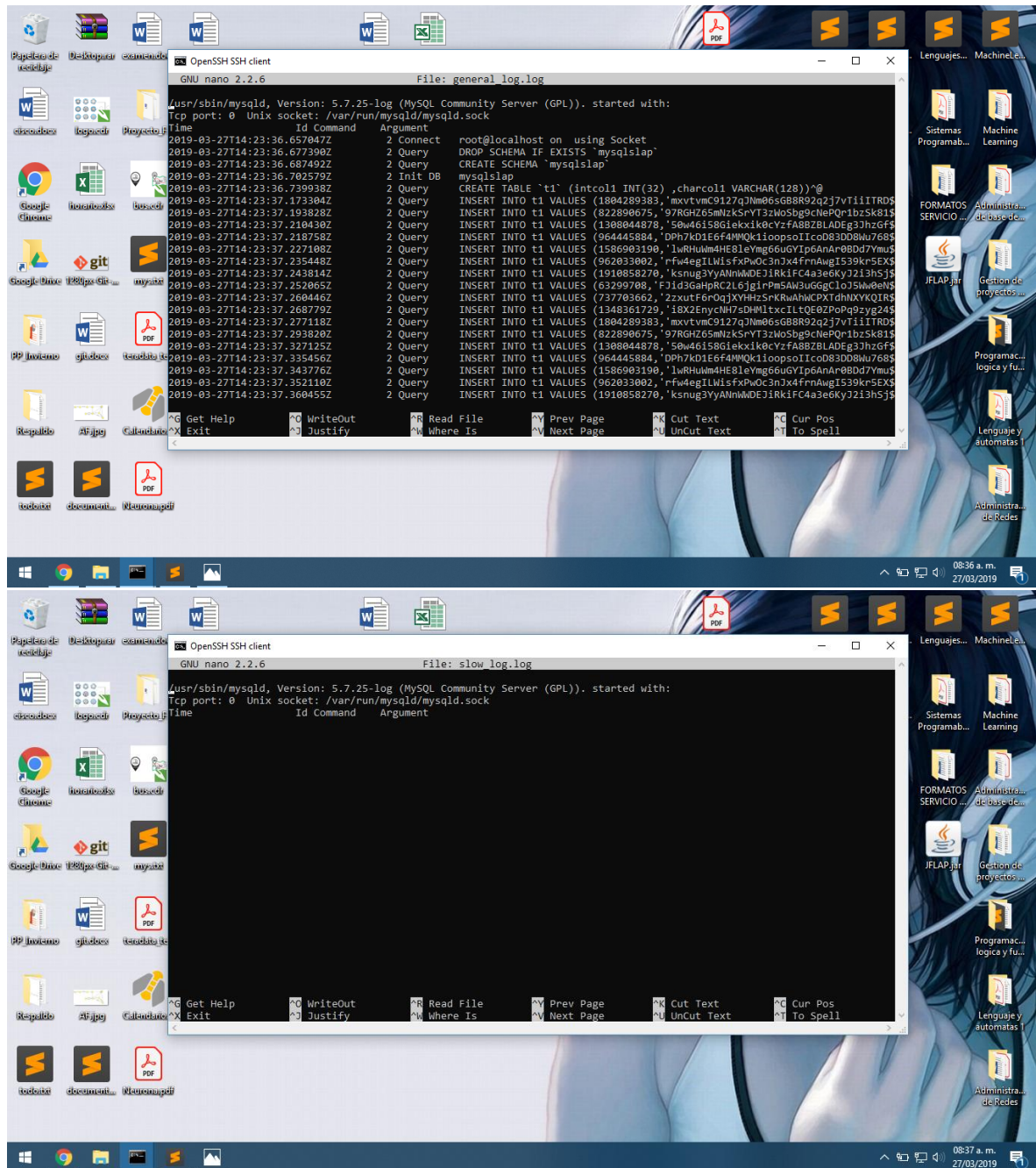
root@juliet:~# mysqlslap --user=root --password --host=localhost --concurrency=50 --auto-generate-sql --verbosemysqlslaproot@juliet:~# mysqlslap --user=root --password
--host=localhost --concurrency=50 --iterations=10 --auto-generate-sql --verbose
Enter password:
Benchmark
  Average number of seconds to run all queries: 0.601 seconds
  Minimum number of seconds to run all queries: 0.482 seconds
  Maximum number of seconds to run all queries: 0.757 seconds
  Number of clients running queries: 50
  Average number of queries per client: 0

root@juliet:~# mysqlslap --user=root --password --host=localhost --concurrency=20 --iterations=5 --number-int-cols=10 --number-char-cols=10 --auto-generate-sql --verbo
se
Enter password:
Benchmark
  Average number of seconds to run all queries: 0.714 seconds
  Minimum number of seconds to run all queries: 0.626 seconds
  Maximum number of seconds to run all queries: 0.835 seconds
  Number of clients running queries: 20
  Average number of queries per client: 0

root@juliet:~# mysqlslap --user=root --password --host=localhost --concurrency=20 --iterations=5 --create-schema=employees --query="SELECT * FROM dep_emp;" --verbose
```

Resultado

Una vez realizadas las pruebas de estrés los archivos logs quedan de la siguiente manera, como se puede observar registran que es lo que se realizó en las pruebas.



OpenSSH SSH client

GNU nano 2.2.6 File: general_log.log

usr/sbin/mysqld, Version: 5.7.25-log (MySQL Community Server (GPL)). started with:
Tcp port: 0 Unix socket: /var/run/mysqld/mysqld.sock

Time	Id	Command	Argument
2019-03-27T14:23:36.657047Z	2	Connect	root@localhost on using Socket
2019-03-27T14:23:36.677390Z	2	Query	DROP SCHEMA IF EXISTS 'mysqlslap'
2019-03-27T14:23:36.687492Z	2	Query	CREATE SCHEMA 'mysqlslap'
2019-03-27T14:23:36.702579Z	2	Init DB	mysqlslap
2019-03-27T14:23:36.739938Z	2	Query	CREATE TABLE 't1' (intcol1 INT(32), charcol1 VARCHAR(128))^@
2019-03-27T14:23:37.173304Z	2	Query	INSERT INTO t1 VALUES (1804289383, 'mxvtvnc9127qJNm06sG8BR92q2j7vTiITRDS
2019-03-27T14:23:37.193828Z	2	Query	INSERT INTO t1 VALUES (822890675, '97RGH265mNzkSrYT3zWoSbg9cNePQr1bzSk815
2019-03-27T14:23:37.210430Z	2	Query	INSERT INTO t1 VALUES (1308044878, '50w46158G1ekxik0cYzFA8BZLADeg3JhzGf5
2019-03-27T14:23:37.218758Z	2	Query	INSERT INTO t1 VALUES (964445884, 'DPH7kD1E6F4MMQk1Ico083D8Wu7685
2019-03-27T14:23:37.227108Z	2	Query	INSERT INTO t1 VALUES (1586903190, 'lwRHuUm4HE81eYmg66uGYp6AnAr0BDD7Ymu5
2019-03-27T14:23:37.235448Z	2	Query	INSERT INTO t1 VALUES (962033002, 'rfw4eg1LW1sFxpW0c3nJx4frnAwg1539kr5EX5
2019-03-27T14:23:37.243814Z	2	Query	INSERT INTO t1 VALUES (1910858270, 'ksnug3YyANnWDEJ1Rk1FC4a3e0kyJ213H5J5
2019-03-27T14:23:37.252065Z	2	Query	INSERT INTO t1 VALUES (63299708, 'FJid3GahpRC2L6jg1rPm5AN3uG6gC1oJ5Ww0eN5
2019-03-27T14:23:37.260446Z	2	Query	INSERT INTO t1 VALUES (737703662, '2zxutF6r0qjXYHh25rKRuAhmCPXIdhIXYKQ1R5
2019-03-27T14:23:37.268779Z	2	Query	INSERT INTO t1 VALUES (1348361729, 'i0X2EnycNH750Hm1cxc1LtQE0ZPoPq9zyg249
2019-03-27T14:23:37.277118Z	2	Query	INSERT INTO t1 VALUES (1804289383, 'mxvtvnc9127qJNm06sG8BR92q2j7vTiITRDS
2019-03-27T14:23:37.293820Z	2	Query	INSERT INTO t1 VALUES (822890675, '97RGH265mNzkSrYT3zWoSbg9cNePQr1bzSk815
2019-03-27T14:23:37.327125Z	2	Query	INSERT INTO t1 VALUES (1308044878, '50w46158G1ekxik0cYzFA8BZLADeg3JhzGf5
2019-03-27T14:23:37.335456Z	2	Query	INSERT INTO t1 VALUES (964445884, 'DPH7kD1E6F4MMQk1Ico083D8Wu7685
2019-03-27T14:23:37.343776Z	2	Query	INSERT INTO t1 VALUES (1586903190, 'lwRHuUm4HE81eYmg66uGYp6AnAr0BDD7Ymu5
2019-03-27T14:23:37.352110Z	2	Query	INSERT INTO t1 VALUES (962033002, 'rfw4eg1LW1sFxpW0c3nJx4frnAwg1539kr5EX5
2019-03-27T14:23:37.360455Z	2	Query	INSERT INTO t1 VALUES (1910858270, 'ksnug3YyANnWDEJ1Rk1FC4a3e0kyJ213H5J5

Get Help WriteOut Read File Prev Page Cut Text Cur Pos
Exit Justify Where Is Next Page UnCut Text To Spell

OpenSSH SSH client

GNU nano 2.2.6 File: slow_log.log

usr/sbin/mysqld, Version: 5.7.25-log (MySQL Community Server (GPL)). started with:
Tcp port: 0 Unix socket: /var/run/mysqld/mysqld.sock

Time	Id	Command	Argument
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Get Help WriteOut Read File Prev Page Cut Text Cur Pos
Exit Justify Where Is Next Page UnCut Text To Spell

Conclusiones

Con base en los resultados obtenidos en estas pruebas se puede saber cual es la capacidad del servidor y en un caso real poder analizar los resultados y tomar medidas de prevención para evitar posibles fallos ante una gran cantidad de demandas.