**Laboratory Report Cover Sheet   
DeVry University  
College of Engineering and Information Sciences**

**Course Number: DBM438**

**Professor:**

**Laboratory Number:** 3

**Laboratory Title:** General Administration and Analysis

**Submittal Date:** 3/20/2016

***Objectives:***

The objective is to look at how the server is set up to act and react to different scenarios. You will make the changes and also look at ways to enhance the database architecture. Once the changes have been made, you will be able to see the changes and updates that you have made.

***Lab Results from MySQL Server—As per your lab instructions, you will need to copy the contents of your lab output file in your VM into this document here before submitting this lab report to the Dropbox.***

mysql> #3.A

mysql> SHOW VARIABLES LIKE '%buffer%';

+-------------------------------------+----------------+

| Variable\_name | Value |

+-------------------------------------+----------------+

| bulk\_insert\_buffer\_size | 8388608 |

| innodb\_buffer\_pool\_dump\_at\_shutdown | OFF |

| innodb\_buffer\_pool\_dump\_now | OFF |

| innodb\_buffer\_pool\_filename | ib\_buffer\_pool |

| innodb\_buffer\_pool\_instances | 8 |

| innodb\_buffer\_pool\_load\_abort | OFF |

| innodb\_buffer\_pool\_load\_at\_startup | OFF |

| innodb\_buffer\_pool\_load\_now | OFF |

| innodb\_buffer\_pool\_size | 341835776 |

| innodb\_change\_buffer\_max\_size | 25 |

| innodb\_change\_buffering | all |

| innodb\_log\_buffer\_size | 4194304 |

| innodb\_sort\_buffer\_size | 1048576 |

| join\_buffer\_size | 262144 |

| key\_buffer\_size | 8388608 |

| myisam\_sort\_buffer\_size | 104857600 |

| net\_buffer\_length | 16384 |

| preload\_buffer\_size | 32768 |

| read\_buffer\_size | 65536 |

| read\_rnd\_buffer\_size | 262144 |

| sort\_buffer\_size | 262144 |

| sql\_buffer\_result | OFF |

+-------------------------------------+----------------+

22 rows in set (0.03 sec)

mysql> #3.B

mysql> SET @@SESSION.read\_buffer\_size = 131072;

Query OK, 0 rows affected (0.00 sec)

mysql> SET @@SESSION.sort\_buffer\_size = 131072;

Query OK, 0 rows affected (0.00 sec)

mysql> SHOW VARIABLES LIKE '%buffer%';

+-------------------------------------+----------------+

| Variable\_name | Value |

+-------------------------------------+----------------+

| bulk\_insert\_buffer\_size | 8388608 |

| innodb\_buffer\_pool\_dump\_at\_shutdown | OFF |

| innodb\_buffer\_pool\_dump\_now | OFF |

| innodb\_buffer\_pool\_filename | ib\_buffer\_pool |

| innodb\_buffer\_pool\_instances | 8 |

| innodb\_buffer\_pool\_load\_abort | OFF |

| innodb\_buffer\_pool\_load\_at\_startup | OFF |

| innodb\_buffer\_pool\_load\_now | OFF |

| innodb\_buffer\_pool\_size | 341835776 |

| innodb\_change\_buffer\_max\_size | 25 |

| innodb\_change\_buffering | all |

| innodb\_log\_buffer\_size | 4194304 |

| innodb\_sort\_buffer\_size | 1048576 |

| join\_buffer\_size | 262144 |

| key\_buffer\_size | 8388608 |

| myisam\_sort\_buffer\_size | 104857600 |

| net\_buffer\_length | 16384 |

| preload\_buffer\_size | 32768 |

| read\_buffer\_size | 131072 |

| read\_rnd\_buffer\_size | 262144 |

| sort\_buffer\_size | 131072 |

| sql\_buffer\_result | OFF |

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22 rows in set (0.00 sec)

mysql> SET @@SESSION.sort\_buffer\_size = 131072;

Query OK, 0 rows affected (0.00 sec)

mysql> SELECT @@SESSION.sort\_buffer\_size;

+----------------------------+

| @@SESSION.sort\_buffer\_size |

+----------------------------+

| 131072 |

+----------------------------+

1 row in set (0.00 sec)

mysql> SELECT @@SESSION.read\_buffer\_size;

+----------------------------+

| @@SESSION.read\_buffer\_size |

+----------------------------+

| 131072 |

+----------------------------+

1 row in set (0.00 sec)

mysql> SHOW VARIABLES LIKE '%buffer%';

+-------------------------------------+----------------+

| Variable\_name | Value |

+-------------------------------------+----------------+

| bulk\_insert\_buffer\_size | 8388608 |

| innodb\_buffer\_pool\_dump\_at\_shutdown | OFF |

| innodb\_buffer\_pool\_dump\_now | OFF |

| innodb\_buffer\_pool\_filename | ib\_buffer\_pool |

| innodb\_buffer\_pool\_instances | 8 |

| innodb\_buffer\_pool\_load\_abort | OFF |

| innodb\_buffer\_pool\_load\_at\_startup | OFF |

| innodb\_buffer\_pool\_load\_now | OFF |

| innodb\_buffer\_pool\_size | 341835776 |

| innodb\_change\_buffer\_max\_size | 25 |

| innodb\_change\_buffering | all |

| innodb\_log\_buffer\_size | 4194304 |

| innodb\_sort\_buffer\_size | 1048576 |

| join\_buffer\_size | 262144 |

| key\_buffer\_size | 6291456 |

| myisam\_sort\_buffer\_size | 12582912 |

| net\_buffer\_length | 16384 |

| preload\_buffer\_size | 32768 |

| read\_buffer\_size | 32768 |

| read\_rnd\_buffer\_size | 131072 |

| sort\_buffer\_size | 262144 |

| sql\_buffer\_result | OFF |

+-------------------------------------+----------------+

22 rows in set (0.00 sec)

mysql> SHOW ENGINES;

+--------------------+---------+----------------------------------------------------------------+--------------+------+------------+

| Engine | Support | Comment | Transactions | XA | Savepoints |

+--------------------+---------+----------------------------------------------------------------+--------------+------+------------+

| FEDERATED | NO | Federated MySQL storage engine | NULL | NULL | NULL |

| MRG\_MYISAM | YES | Collection of identical MyISAM tables | NO | NO | NO |

| MyISAM | DEFAULT | MyISAM storage engine | NO | NO | NO |

| BLACKHOLE | YES | /dev/null storage engine (anything you write to it disappears) | NO | NO | NO |

| CSV | YES | CSV storage engine | NO | NO | NO |

| MEMORY | YES | Hash based, stored in memory, useful for temporary tables | NO | NO | NO |

| ARCHIVE | YES | Archive storage engine | NO | NO | NO |

| InnoDB | YES | Supports transactions, row-level locking, and foreign keys | YES | YES | YES |

| PERFORMANCE\_SCHEMA | YES | Performance Schema | NO | NO | NO |

+--------------------+---------+----------------------------------------------------------------+--------------+------+------------+

9 rows in set (0.00 sec)

mysql> SELECT engine, support FROM information\_schema\_engines;

ERROR 1046 (3D000): No database selected

mysql> SELECT engine, support FROM information\_schema.engines;

+--------------------+---------+

| engine | support |

+--------------------+---------+

| FEDERATED | NO |

| MRG\_MYISAM | YES |

| MyISAM | DEFAULT |

| BLACKHOLE | YES |

| CSV | YES |

| MEMORY | YES |

| ARCHIVE | YES |

| InnoDB | YES |

| PERFORMANCE\_SCHEMA | YES |

+--------------------+---------+

9 rows in set (0.00 sec)

mysql> #5.A

mysql> net stop mysql56

-> net stop mysql56;

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'net stop mysql56

net stop mysql56' at line 1

***Conclusions:***

This week’s lab was very straight forward. The first few steps are exactly the same from the previous labs. We will locate the .ini file and make changes. Once the changes have been made, we can see the changes of file sizes we made. The lab was meant for us make changes and look at the different ways to enhance the database architecture.

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|  | Name |  | Program |  | Signature |