Creating a MySQL Database

This file contains a few tutorials that I found helpful for installing, configuring, using, etc. MySQL in either your local drive or an external drive. At the end I've also added a link with commands for creating, deleting and querying databases.

1)**Local Machine**
Best tutorial I found:
http://dev.mysql.com/tech-resources/articles/ddws/2.html

2)**External Drive**
(Source: http://blog.gamatam.com/2009/05/creating-mysql-database-on-external.html)

First I created a directory where the MySQL database would reside, all further commands are run from that directory.
I then created a data directory to store the databases:

mkdir data

I then ran mysql_install_db to initialize the MySQL database tables:

mysql_install_db --ldata=data

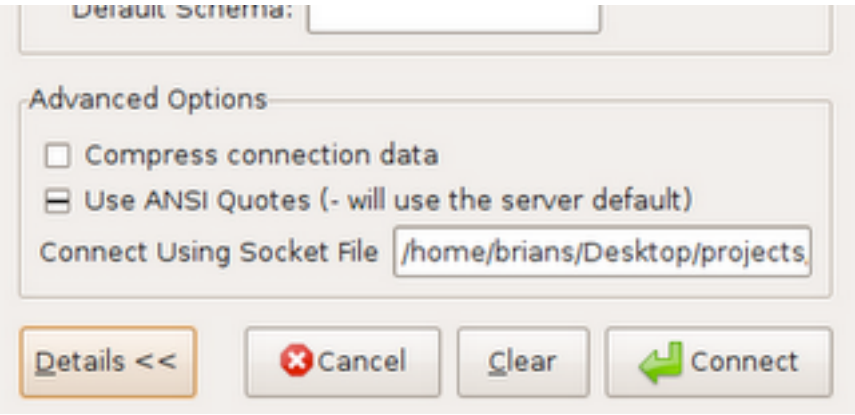
Then I could start the database (remember to shutdown your other mysql database if it is running, else specify a different port for this databse to run on):

mysqld --pid-file=./mysqld.pid --socket=./mysqld.sock --datadir=./data

I put this into a 'start.sh' script.
The socket file will be created in the data directory (data/mysqld.sock.
You can then connect to the database like this:

mysql --user=root --socket=./data/mysqld.sock

If you want access to the MYSQL tables use --user=root, else create your own users etc. If you want to use the MySWL Administrator and MySQL Query Browser graphical front ends, make sure you specify the socket file:



Shutdown the database using the following command:

sudo mysqladmin shutdown -S ./data/mysqld.sock

It bothers me that I have to shut it down using sudo, I'll look for a work around when it starts to really irritate me.
Now, wait for the 8 Gig of data to load.

3)**MySQL Commands**
http://www.pantz.org/software/mysql/mysqlcommands.html

4)TFA_STATISTICS DATABASE DOCUMENTATION

Here are some key parameters/configuration elements used when developing the database for storing all the statistics reported by the nodes at TFA.

1.- Two tables were created. One of them stores information regarding each individual node while the other one focuses on the individual user. They have the following formats:

mysql> CREATE TABLE node_information (Date DATETIME, nodeID VARCHAR(10), Guests SMALLINT UNSIGNED, Registered SMALLINT UNSIGNED, UpGuests SMALLINT UNSIGNED, DownGuests SMALLINT UNSIGNED, UpRegistered SMALLINT UNSIGNED, DownRegistered SMALLINT UNSIGNED);

Example 1

Date_Time	Node ID	#Guests	#Registered	Up Guest	Down Guest	Up Registered	Down Registered
9-11-11_12-30	HCC	10	22	1M	1M	5M	5M

mysql> CREATE TABLE user_information(Date DATETIME, UserMAC CHAR(17), IPaddress INT UNSIGNED, Uplink SMALLINT UNSIGNED, Downlink SMALLINT UNSIGNED);

Example 2

Date_Time	USER (MAC)	Associated IP	UP	DOWN
9-11-11_12-30	01:23:45:67:89:ab	192.168.1.10	1M	2M

FIELD	TYPE	COMMENTS
Date	DATETIME	

FIELD	TYPE	COMMENTS
NodeID	VARCHAR(10)	10 Chars Max!
#Guests	unsigned SMALLINT	2 Bytes (65535)
#Registered	unsigned SMALLINT	2 Bytes (65535)
Uplink Guests	unsigned SMALLINT	2 Bytes (65535)
Downlink Guests	unsigned SMALLINT	2 Bytes (65535)
Uplink Registered	unsigned SMALLINT	2 Bytes (65535)
Downlink Registered	unsigned SMALLINT	2 Bytes (65535)
User (MAC Address)	CHAR(17)	17 characters - fixed
IP Address	unsigned INT	