**Back-up**

Backup and restore are two activities with which data can be protected from an unexpected exigency and making it happening at scheduled intervals will be a wise activity towards safe data backup practices. This activity is best suited to conditions during

* Operating system crash
* Power failure
* File System Crash
* Hardware problem like hard drive, mother board and so forth

The below mentioned are the two

**1. Back up the database using the following command:**

*mysqldump -u [username] –p[password] [database\_name] > [dump\_file.sql]*

The parameters of the said command as follows:

[username] - A valid MySQL username.

[password] - A valid MySQL password for the user.

[database\_name] - A valid Database name you want to take backup.

[dump\_file.sql] - The name of backup dump file you want to generate.

**2. Restore the backup to a local database server** - the mysql command will let you take the contents of a .sql file backup, and restore it directly to a database. This is the syntax for the command:

*mysql -u [username] –p[password] [database\_name] < [dump\_file.sql]*

**3. Restore the backup to a remote database server** - you can also use the mysql command to restore a .sql file backup to a remote MySQL server. If you have another server running MySQL, and you have the database credentials, you can define a hostname in the command by adding the **-h** flag to specify a hostname. This changes the syntax of the command to:

**mysql –h [hostname] –u [username] –p[password] [database\_name] < [dump\_file.sql]**

As long as you have the correct credentials and the remote server is running, you will be able to restore the database remotely.

Coming to **Mobile Accessories Retailer Shop** data backup strategies are like this:

Usually back-up activities will takes place only when load is very low. As a general practice at first instance we take complete backup and go for incremental during scheduled intervals.

Assume that we make a full backup of all our InnoDB tables in all databases using the following command on Sunday at 1 p.m., when load is low:

In case of an operating system crash or power failure, InnoDB itself does all the job of recovering data. But to make sure that you can sleep well, observe the following guidelines:

* Always run the MySQL server with the --log-bin option, or even --log-bin=log\_name, where the log file name is located on some safe media different from the drive on which the data directory is located. If you have such safe media, this technique can also be good for disk load balancing (which results in a performance improvement).
* Make periodic full backups, using the mysqldump command, “Establishing a Backup Policy”, that makes an online, nonblocking backup.
* Make periodic incremental backups by flushing the logs with FLUSH LOGS or mysqladmin flush-logs.

Above three are standard practices that was copied and adopted for Mobile Accessories Retailer Shop-MARS