

## MSC COMPUTER SCIENCE SEM-III ELECTIVE-I: CYBER AND INFORMATION SECURITY-II

### Practical -01

```
//Program to take SQL Database Backup
import java.text.SimpleDateFormat;
import java.util.Date;

public class MysqlBackupProgram {
    public static void main(String[] args) {
        // NOTE: Date format
        SimpleDateFormat sdf = new SimpleDateFormat("yyyy-MM-dd
HH:mm:ss.SSS");

        // NOTE: Creating Database Constraints
        String dbHost = "localhost"; //host server IP
        String dbPort = "3306";
        String dbName = "mscdb";
        String dbUser = "root";
        String dbPass = "maurya";
        String dumpExe = "C:\\Program Files\\MySQL\\MySQL Server
8.0\\bin\\mysqldump";
        // NOTE: Here the backup folder is for saving inside it
        String dumpSavePath = "D:\\BackupFolder\\";
        // NOTE: Here the backup is saved in a folder called backup with the
name backup.sql
        String fileName = "backUpFile_"+sdf.format(new
Date().getTime())+".sql";

        // NOTE : call for backup process
        Backupdbtosql(dbHost, dbPort, dbUser, dbPass, dbName, dumpExe,
dumpSavePath, fileName);
    }

    public static void Backupdbtosql(String host,String port,String
user,String password,String dbName,String dumpExe,String
dumpSavePath,String fileName) {
        try {
            // NOTE: Date format
            SimpleDateFormat sdf = new SimpleDateFormat("yyyy-MM-dd
HH:mm:ss.SSS");

            String batchCommand;
            if (password != "") {
                //only backup the data not included create database
                batchCommand = dumpExe +
                    " -h " + host +
                    " --port " + port +
                    " -u " + user +
                    " --password=" + password +
                    " --add-drop-database -B " + dbName +
                    " -r \"" + dumpSavePath + "\"" + "backup"+new
Date().getTime()+" .sql";
            } else {
                batchCommand = dumpExe +
                    " -h " + host +
                    " --port " + "3306" +
                    " -u " + user +
                    " --add-drop-database -B " + dbName +
                    " -r \"" + dumpSavePath + "\"" + "backup"+new
Date().getTime()+" .sql";
            }
        }
    }
}
```

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```
//      NOTE: Executing the command here
      System.out.println("Execute Command - " +batchCommand);
      System.out.println("Processing.. "+ "STARTED "
+sdf.format(new Date()));
      Date sDate = new Date();
      Process runtimeProcess =
Runtime.getRuntime().exec(batchCommand);
      int processComplete = runtimeProcess.waitFor();

      System.out.println("Processing.. "+ "END " +sdf.format(new
Date()));
      Date eDate = new Date();
      long duration = eDate.getTime() - sDate.getTime();
      int seconds=(int) ((duration/1000)%60);
      long minutes=((duration-seconds)/1000)/60;
      System.err.println("TOTAL TIME : " + minutes +" minutes ::
");
      System.err.print(seconds +" seconds :: ");
      System.err.print(duration +" milliseconds");

      //      NOTE: processComplete=0 if correctly executed, will contain
other values if not
      if (processComplete == 0) {
          System.out.println("Backup Complete");
      } else {
          System.out.println("Backup Failure");
      }

      } catch (Exception ex) {
          System.err.println(ex.getMessage());
      }
  }
}
```