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//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 Commond - " +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());
           }
       }
}
```

MSC COMPUTER SCIENCE SEM-III ELECTIVE-I: CYBER AND INFORMATION SECURITY-II
Practical -01

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