



How to backup ATutor both manually and automatically

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An overview

- ❑ ATutor

- ❑ ATutor database

- ❑ A difference between manual and automatic backups

- ❑ Manually backup

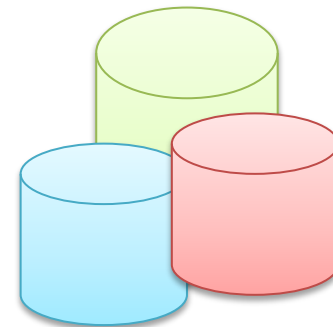
- ❑ Automatically backup

ATutor

- Open source
- Web-based
- Learning Management System (LMS)
- eLearning
- Online learning
- <http://atutor.ca>

ATutor database

- ❑ Open source
- ❑ Relational Database Management System (RDBMS)
- ❑ Storage engine
- ❑ Transaction
- ❑ Size of ATutor database
 - MyISAM = 109MB
 - InnoDB = 352MB



A difference between manual and automatic backups

- A typical data backup
- An immediate data backup
 - Upgrade version of MySQL, ATutor
 - Upgrade server

Manually backup

- ❑ Copy files and directory
- ❑ phpMyAdmin
 - ❑ other database tools ([MySQL Migration Toolkit](#), [Webyog](#))
- ❑ MySQL Command line

Manually backup cont...

Copy files and directory:

```
# service mysqld stop
```

```
# cp -R /var/lib/mysql/* /mnt/backup/db
```

Manually backup cont...

phpMyAdmin:

- ❑ Export -> Format: SQL -> Go
- ❑ Select database -> Export -> Format: SQL -> Go

The screenshot displays the phpMyAdmin interface for exporting data from the 'course2553' database. The 'Export' tab is active, and the 'Export Method' is set to 'Custom - display all possible options'. The 'Table(s):' section shows a list of tables, with 'AT_admins', 'AT_admin_log', 'AT_assignments', 'AT_blog_enroll', 'AT_blog_enroll_courses', 'AT_blog_posts', 'AT_blog_posts_comments', 'AT_blog_subscription', 'AT_cms', 'AT_config', 'AT_content', 'AT_content_tests_assoc', 'AT_courses', 'AT_course_access', 'AT_course_cats', 'AT_course_enrollment', 'AT_course_stats', 'AT_external_resources', 'AT_faqs_entries', 'AT_faqs_topics', 'AT_feeds', 'AT_file_student_tools', 'AT_files', 'AT_files_backup', 'AT_files_comments', 'AT_file_storage_groups', and 'AT_folders' listed. The 'Export Method' is set to 'Custom - display all possible options'. The 'Export Format' is set to 'SQL'. The 'Export Options' section includes checkboxes for 'Quick - display only the minimal options', 'Include a timestamp of when databases were created, last updated, and last checked', 'Export in a transaction', 'Foreign key checks', and 'System or older MySQL server to maximize output compatibility with: NONE'. The 'Output' section is set to 'Save output to a file', with the file name template '@DATABASE@' and character set 'utf-8'. The 'Output Format' is set to 'None'. The 'Data dump options' section includes checkboxes for 'IF NOT EXISTS' and 'AUTO_INCREMENT'. The 'Output' section shows the generated SQL statements, including 'CREATE TABLE' and 'INSERT' statements for the 'AT_admins' table.

Manually backup cont...

MySQL Command line:

```
# mysqldump -u root -pPASSWORD DATABASENAME >  
filename.sql
```

```
# mysqldump -u root -pPASSWORD --all-databases >  
filename.sql
```

```
# mysqldump -u root -pPASSWORD --all-databases | gzip >  
/mnt/backup/database_`date +%Y%m%d%H%M%S`.sql.gz
```

❑ <http://dev.mysql.com/doc/refman/5.5/en/mysqldump.html>
[#option mysqldump opt](#)

Automatically backup

Crontab:

```
# crontab -e
```

```
❑ 0 1 * * * /usr/bin/mysqldump -opt -u root -pPASSWORD --  
all-databases > filename.sql
```

```
❑ 0 1 * * * /mnt/script/./backupdb.sh >>  
/script_log/backupdb.log
```

Rsnapshot:

```
❑ 0 1 * * * rsnapshot -v hourly(daily, monthly)
```

Automatically backup cont...

Rsnapshot:

```
# vi /etc/rsnapshot.conf
```

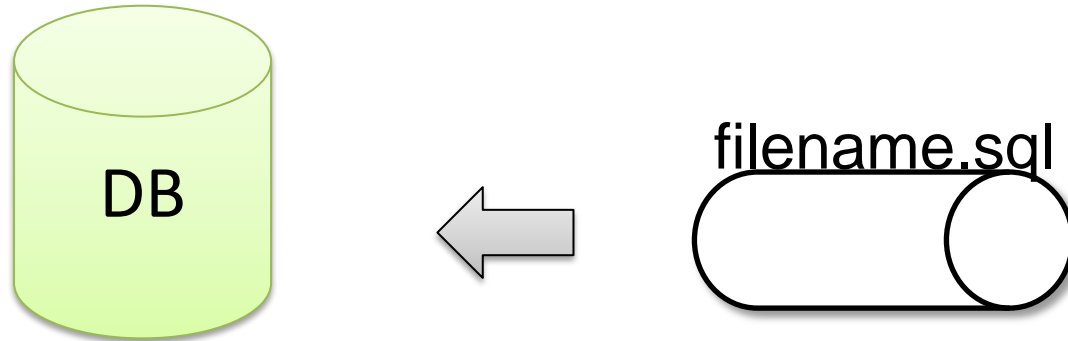
```
# crontab -e
```

```
# 0 1 * * * /usr/local/bin/rsnapshot hourly
```

```
# 0 1 * * * /usr/local/bin/rsnapshot daily
```

```
# http://bash.cyberciti.biz/backup/rsnapshot-remote-mysql-backup-shell-script/
```

Recovery



```
# mysql -u root -pPASSWORD DATABASENAME <  
filename.sql
```

```
# Import -> browse file -> choose options -> go
```