

# Create & Restore Backups Guide



While BookStack does not currently have a built-in way to backup and restore

content, it can usually be done via the command line with relative ease. The below commands are based on using Ubuntu. If you are using a different operating system you may have to alter these commands to suit.

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## Backup

There are two types of content you need to backup: Files and database records.

### Database

The easiest way to backup the database is via `mysqldump`:

```
# Syntax
## Only specify the `-p` option if the user provided has a password
mysqldump -u {mysql_user} -p {database_name} > {output_file_name}

# Example
mysqldump -u benny bookstack > bookstack.backup.sql
```

If you are using MySQL on Ubuntu, and are using the `root` MySQL user, you will likely have to run the command above with `sudo`:

```
sudo mysqldump -u root bookstack > bookstack.backup.sql
```

The resulting file ( `bookstack.backup.sql` in the examples above) will contain all the data from the database you specified. Copy this file to somewhere safe, ideally on a different device.

## Files

Below is a list of files and folders containing data you should back up. The paths are shown relative to the root BookStack folder.

- `.env` - File, contains important configuration information.
- `public/uploads` - Folder, contains any uploaded images.
- `storage/uploads` - Folder, contains uploaded page attachments.
- `themes` - Folder, contains any configured visual/logical themes.

Alternatively you could backup up your whole BookStack folder but only the above contain important instance-specific data by default.

The following command will create a compressed archive of the above folders and files:

```
tar -czvf bookstack-files-backup.tar.gz .env public/uploads storage/uploads themes
```

The resulting file ( `bookstack-files-backup.tar.gz` ) will contain all your file data. Copy this to a safe place, ideally on a different device.

## Automatic Backup Script

### backscript.sh

```
#!/bin/bash

# Directory to store backups within
# Should not end with a slash and not be stored within
# the BookStack directory
BACKUP_ROOT_DIR="$HOME"

# Directory of the BookStack install
# Should not end with a slash.
BOOKSTACK_DIR="/var/www/bookstack"

# Get database options from BookStack .env file
```

```
export $(cat "$BOOKSTACK_DIR/.env" | grep ^DB_ | xargs)

# Create an export name and location
DATE=$(date "+%Y-%m-%d_%H-%M-%S")
BACKUP_NAME="bookstack_backup_$DATE"
BACKUP_DIR="$BACKUP_ROOT_DIR/$BACKUP_NAME"
mkdir -p "$BACKUP_DIR"

# Dump database to backup dir using the values
# we got from the BookStack .env file.
mysqldump --single-transaction \
--no-tablespaces \
-u "$DB_USERNAME" \
-p"$DB_PASSWORD" \
"$DB_DATABASE" > "$BACKUP_DIR/database.sql"

# Copy BookStack files into backup dir
cp "$BOOKSTACK_DIR/.env" "$BACKUP_DIR/.env"
cp -a "$BOOKSTACK_DIR/storage/uploads" "$BACKUP_DIR/storage/uploads"
cp -a "$BOOKSTACK_DIR/public/uploads" "$BACKUP_DIR/public/uploads"

# Create backup archive
tar -zcf "$BACKUP_DIR.tar.gz" \
-C "$BACKUP_ROOT_DIR" \
"$BACKUP_NAME"

# Cleanup non-archive directory
rm -rf "$BACKUP_DIR"

echo "Backup complete, archive stored at:"
echo "$BACKUP_DIR.tar.gz"
```

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## Restore

If you are restoring from scratch follow the [installation](#) instructions first to get a new BookStack instance set-up but **do not run the `php artisan migrate` installation step when installing BookStack**. You may need to comment this command out if using an installer script.

If you are using a docker-container-based set-up, restore the database before running the BookStack container. An example of the process using a linuxserver.io-based docker-compose setup can be seen [in our video here](#).

## Database

To restore the database you simply need to execute the sql in the output file from the `mysqldump` you performed above. To do this copy your database SQL backup file onto the BookStack or database host machine and run the following:

```
# Syntax
mysql -u {mysql_user} -p {database_name} < {backup_file_name}
## Only specify the -p if the user provided has a password

# Example
mysql -u benny -p bookstack < bookstack.backup.sql

# If using the root user on Ubuntu you may
# have to run the above with root permissions via sudo:
sudo mysql -u root bookstack < bookstack.backup.sql
```

If you are restoring to a new version of BookStack you will have to run `php artisan migrate` after restore to perform any required updates to the database.

## Files

To restore the files you simply need to copy them from the backup archive back to their original locations. If you created a compressed `bookstack-files-backup.tar.gz` archive as per the backup instructions above you can simply copy that file to your BookStack folder then run the following command:

```
tar -xvzf bookstack-files-backup.tar.gz
```

If you get errors during the above command it may be due to permissions. Change permissions so you can write to the restore locations.

After a backup of the files you should reset the permissions to ensure any write-required locations are writable by the server. The locations required for this can be found in the [installation instructions](#).

## Configuration (.env File)

During a restore, you may end up merging various configuration options between your old and new instance `.env` files, to get things working for the new environment. For example, it's common to use the old `.env` settings for most things but use database settings from the `.env` file of a newly created instance.

One thing to be aware of is that you should use the `APP_KEY` value of the old `.env` file since this is used for various features like the encryption of multi-factor authentication credentials. Changing the `APP_KEY` may cause such features to break.

## URL Changes

If you are restoring into an environment where BookStack will run on a different URL, there are a couple of things you'll need to do after restoring everything:

- Within the `.env` config file update the `APP_URL` value to exactly match your new base URL.
- Run the [“Update System URL” command](#) to update your database content to use your new URL.

If you migrated web-server configuration files, you may also need to tweak those to correctly use the new URL.

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