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Lecture 21

Handling Files
In particular, uploading files.

Overall Workflow

- User Uploads File
- Do necessary data validation
  - Check file type, size, etc.
- Move temp file to permanent location.
  - Two step process provide a level of protection.
- Record the transaction in a database
  - Accurate record of site accessible files.

Setting Up the Form

➢ Set Form Encode Type

```
<form method='post'
    enctype='multipart/form-data'>
```

➢ Create form element

```
<input type='file'
    name='filename' size='10'>
```

$_FILES Array

➢ How file information is passed back to PHP on the Server.

Array element

$_FILES['*file*']['*name*']   … The name of the uploaded file (e.g., *smiley.jpg*)

$_FILES['*file*']['*type*']   … The content type of the file (e.g., *image/jpeg – More Next*)

$_FILES['*file*']['*size*']   … The file's size in bytes

$_FILES['*file*']['*tmp_name*']… The name of the temporary file stored on the server

$_FILES['*file*']['*error*']   … The error code resulting from the file upload

Common Media Types

application/pdf

image/gif

multipart/form-data

text/xml

application/zip

image/jpeg

text/css

video/mpeg

audio/mpeg

image/png

text/html

video/mp4

audio/x-wav

image/tiff

text/plain

video/quicktime

Types of Validation

➢ File Type

    ➢ Make sure appropriate type

    ➢ Make sure file extension matches type

➢ File Size

    ➢ Check size of file

       ➢ PHP has a maximum size which is set in php.ini

Saving

➢ Often files are saved to the local disk
  `move_uploaded_file()`

➢ Also possible to save to DB. However, large files can't be saved in SQLite and this in practice isn't used very much.

➢ However, we often save a record in the DB referencing the file (see example)

Extended Example Intro

➢ We will demonstrate key features with an extended example: lec21.zip

➢ Note, it will not allow uploads on the CS Server – think about security.

➢ You will download to your own site and experiment.

➢ And then disable if on a public server!

Extended Example Page

Extended Example Roadmap

> ➢ Similar overall structure as before.

File	Explanation
`index.php`	Main page for uploading files showin previous uploads.
`getImage.php`	PHP retrieves image stored in the uploads folder.
`createdb.php`	To restart example delete images.db and load this URL.
`images.db`	The SQLite database recording uploaded images.
`testsrc`	Folder with some example images for testing.
`uploads`	Where validated uploaded images are placed.
`uploads/000001.png`	Example of an uploaded image.
`inc/page_setup.php`	Top level that then includes components.
`inc/header.php`	Common include file for the page header.
`inc/footer.php`	Common include file for the page footer.
`inc/sidenav.php`	Common include file for the navigation.
`lib/config.php`	File generally requiring web master to edit configuration.
`lib/database.php`	Extension to PDO for working with image records.