Lesson27

PHP Basics. Files

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Hashing
Cryptographic hash funcitons

- Hashing is generating a value or values from a string of text using a mathematical function

- Variable-length plaintext is hashed into a fixed-length hash value(message digest or simply hash)

- Usually we use hashing for security purposes, but also used in big data comparison etc.

- Hashing is usually one direction process, because there is no way to reverse the encryption

- Hashing PHP functions: md5($string), sha1($string)

- Salt - in cryptography, a salt is random data that is used as an additional input to one-way function that hashes data, a password or passphrase

- Wiki: https://en.wikipedia.org/wiki/Cryptographic_hash_function

Secure
Way to Hash passwords

- password_hash($password, PASSWORD_BCRYPT, array('cost'=>12))

- password_verify($textString, $hashString)

- Docs to read: https://www.php.net/manual/en/function.password-hash.php

Files
Open file as a stream

- file($filename) - reads entire file in array

- $handle = fopen($filename, 'r|r+|a|w|') open file or URL and pass it to $handle variable

- fgets($handle) - reads the line from file and move pointer to next line

- fputs($handle, "\r\nText Line") - write text string as line in file

- fclose($handle) - close file stream

- feof($handle) - test if we reached end of file

- Docs: https://www.php.net/manual/en/function.fopen.php

When to use different approaches

- If we need to read a file line by line or by bytes we use fopen($filename, "r|a| w…") and fgets($handle) or fread($handle, "numberOfBytes") - useful for big files or if we need to read portion of the file

- If we need to read entire file into the array we use file($filename) function

- If we need to read entire file into string we use file_get_contents($filename) function

Directories
Working with directories

- scandir($path) - read the directory in the array

- glob("PATTERN") - get files by pattern

- "." - represent the directory you are in

- ".." - represent the parent directory

File and Path
File info

- pathinfo($pathToFile) - return information about the file

- basename($path) - return file name from path

- dirname($file) - get the file directory

- "../" - go one directory back

- realpath(string $path) - return the "real" or absolute path

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Uploading files
Handling file uploads

- Use enctype="multipart/form-data"for you HTML form

- Use input type "file" (to allow multiple file uploads use "multiple" attribute)

- All files uploaded by user moved to PHP temp directory

- move_uploaded_file($temp_file , $pathToDesiredLocation) - move uploaded file from temporary php directory to user defined path(any folder in your system)