EAST WEST UNIVERSITY

CSE479

Web Programming

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Topic 9

PHP and File Management

Special credit:

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Files and PHP

- File Handling
  - Data Storage
    - Though slower than a database
  - Manipulating uploaded files
    - From forms
  - Creating Files for download

Open/Close a File

- A file is opened with fopen() as a “stream”, and PHP returns a ‘handle’ to the file that can be used to reference the open file in other functions.
- Each file is opened in a particular **mode**.
- A file is closed with fclose() or when your script ends.

File Open Modes

‘r’	Open for reading only. Start at beginning of file.
‘r+’	Open for reading and writing. Start at beginning of file.
‘w’	Open for writing only. Remove all previous content, if file doesn’t exist, create it.
‘a’	Open writing, but start at END of current content.
‘a+’	Open for reading and writing, start at END and create file if necessary.

File Open/Close Example

```
<?php
// open file to read
$toread = fopen(‘some/file.ext’,’r’);
// open (possibly new) file to write
$towrite = fopen(‘some/file.ext’,’w’);
// close both files
fclose($toread);
fclose($towrite);
?>
```

Reading Data

- There are two main functions to read data:
- `fgets($handle,$bytes)`
  - Reads up to $bytes of data, stops at newline or end of file (EOF)
- `fread($handle,$bytes)`
  - Reads up to $bytes of data, stops at EOF.
- We need to be aware of the End Of File (EOF) point..
- `feof($handle)`
  - Whether the file has reached the EOF point. Returns true if have reached EOF.

Data Reading Example

```
$handle = fopen('people.txt', 'r');

while (!feof($handle)) {
     echo fgets($handle, 1024);
     echo '<br />';
     }
fclose($handle);
```

fgets (file, length) where length is optional. Specifies the number of bytes to read. Default is **1024** bytes.

Data Reading Example

```
$handle = fopen('people.txt', 'r');
```

```
$handle = fopen('people.txt', 'r');

while (!feof($handle)) {
    echo fgets($handle, 1024);
    echo '<br />';
    }

fclose($handle);
```

Open the file and assign the resource to $handle

Data Reading Example

```
$handle = fopen('people.txt', 'r');

while

    }

fclose($handle);
```

```
while (!feof($handle)) {
     echo fgets($handle, 1024);
     echo '<br />';
     }
```

While NOT at the end of the file, pointed to by $handle,
get and echo the data line by line

Data Reading Example

```
$handle = fopen('people.txt', 'r');

while (!feof($handle)) {
      echo fgets($handle, 1024);
      echo '<br />';
      }
fclose($handle);
```

```
fclose($handle);
```

Close the file

File Open shortcuts..

- There are two ‘shortcut’ functions that don’t require a file to be opened:
- **`$lines = file($filename)`**
  - Reads entire file into an array with each line a separate entry in the array.
- **`$str = file_get_contents($filename)`**
  - Reads entire file into a single string.
- To write data to a file use:
- **`fwrite($handle,$data)`**
  - Write $data to the file.

Data Writing Example

```
$handle = fopen('people.txt', 'a');

fwrite($handle, “\nFred:Male”);

fclose($handle);
```

Data Writing Example

Open file to append data (mode 'a')

$handle = fopen('people.txt', 'a');

```
$handle = fopen('people.txt', 'a');

fwrite($handle, “\nFred:Male”);

fclose($handle);
```

fwrite($handle, “\nFred:Male”);

Write new data (with line break after previous data)

Other File Operations

- Delete file
  - `unlink('filename');`
- Rename (file or directory)
  - `rename('old name', 'new name');`
- Copy file
  - `copy('source', 'destination');`
- And many, many more!
  - www.php.net/manual/en/ref.filesystem.php

Dealing With Directories

- Open a directory
  - `$handle = opendir('dirname');`
    - `$handle` 'points' to the directory
- Read contents of directory
  - `readdir($handle)`
    - Returns name of next file in directory
    - Files are sorted as on filesystem
- Close a directory
  - `closedir($handle)`
    - Closes directory 'stream'

Directory Example

```
$handle = opendir('./');

while(false !== ($file=readdir($handle)))
    {
    echo "$file<br />";
    }

closedir($handle);
```

Directory Example

$handle = opendir('./');

Open current directory

```
$handle = opendir('./');

while(false !== ($file=readdir($handle)))
    {
    echo "$file<br />";
    }

closedir($handle);
```

Directory Example

```
$handle = opendir('./');

while(f
    {
    ech
    }

closedir($handle);
```

```
while(false !== ($file=readdir($handle)))
        {
        echo "$file<br />";
        }
```

Whilst readdir() returns a name, loop through directory contents, echoing results

Directory Example

```
$handle = opendir('./');

while(false !== ($file=readdir($handle)))
    {
    echo "$file<br />";
    }
closedir($handle);
```

closedir($handle);

Close the directory stream

Other Directory Operations

- Get current directory
  - `getcwd()`
- Change Directory
  - `chdir('dirname');`
- Create directory
  - `mkdir('dirname');`
- Delete directory (MUST be empty)
  - `rmdir('dirname');`
- And more!
  - www.php.net/manual/en/ref.dir.php