

WHMCS PHP Skills Assessment

This exercise is designed to demonstrate your fluency and familiarity with PHP as well as provide an indication of your individual programming style.

We understand that job applications tend to be arduous in their own right, thus we do not expect you to commit too much time to this exercise; 15-30 minutes should suffice.

Please ensure you address the acceptance and technical/functional criteria. Email back a zip or tar archive of the finished implementation.

Exercise

Synopsis

Suppose you work for a tiny bookstore. They have a digital catalog of titles and want to write a simple list interface in PHP. The interface must be able to list entries in the digital catalog based on a data field.

Criteria

Acceptance

1. Core functionality that is reusable
2. A simple interface that utilizes the core functionality which can be used by a human or machine

Technical/Functional

1. Must be written PHP (version $\geq 5.2.1$ and ≤ 5.6)
2. Functions in a UNIX-based environment
3. Code can function outside a web environment
4. Returned search results are based on matched value for the data field; no fuzzy, wildcard, or relational matching need
5. Does not require internet access
6. Does not require a relational database (like PostgreSQL, MySQL, SQLite, etc.)
7. Does not require human interaction
8. Results are returned as a simple list of the unique identifiers

Data & System

1. The catalog is a series of flat files, a simple hierarchical file system. The base directory is call "catalog", with subdirectories of entry types (like "book" and "audio")
2. The catalog is located on the same system as the PHP code.
3. Each entry's file contains that entry's data, one field per line.
4. Each entry is unique and is only represented once throughout the catalog.

5. Each entry's filename is based on a unique identifier. No two identifiers will ever be the same regardless of where in the catalog hierarchy it may be.

The following illustrates the catalog filesystem hierarchy and an example entry:

```
[/catalog] $ pwd
/catalog

[/catalog] $ ls
audio      book      gift_item  video

[/catalog] $ ls book
0123456789  1123456789  2223456789012

[/catalog] $ cat book/0123456789
title=PHP in a Nutshell
author=Paul Hudson
publisher=O'Reilly Media
isbn=0123456789|012345678912x

[/catalog] $
```