Managing Multiple PHP Versions on macOS

This guide explains how the switch-php shell function works and how to add support for additional PHP versions installed through Homebrew.

The Function

```
switch-php() {
  local formula
  case "$1" in
    81) formula="php@8.1" ;;
    82) formula="php@8.2" ;;
    83) formula="php@8.3" ;;
    84) formula="php@8.4" ;;
    85) formula="php" ;;
    *) echo "Usage: switch-php {81|82|83|84|85}" && return 1 ;;
  esac

  # Dynamically unlink any active php formulas to prevent omissions
  for f in php php@8.1 php@8.2 php@8.3 php@8.4 php@8.5; do
    brew unlink "$f" 2>/dev/null
  done

  brew link --overwrite --force "$formula"

  # Clean up existing PHP paths from environment to avoid duplicates
  export PATH="$(echo "$PATH" | tr ':' '\n' | grep -Ev '/opt/homebrew/opt/php(@|$)' | paste -sd: -)"
}

alias switch-php81='switch-php 81'
alias switch-php82='switch-php 82'
alias switch-php83='switch-php 83'
alias switch-php84='switch-php 84'
alias switch-php85='switch-php 85'
```

How It Works

1. Version Selection

The case statement reads the version number supplied to the function. For example, running 'switch-php 83' selects the Homebrew formula 'php@8.3'. If an unsupported version is entered, the function displays usage instructions and exits.

2. Unlink Existing PHP Versions

Before activating a new version, the function loops through all known PHP formulas and unlinks them. This prevents symlink conflicts when switching between versions.

3. Link the Selected Version

The command 'brew link --overwrite --force' makes the selected PHP version the active version used by the terminal.

4. Clean the PATH Variable

The PATH cleanup removes old Homebrew PHP entries from the current shell environment. This avoids duplicate PHP paths and helps ensure the newly linked version is used.

5. Aliases

Aliases provide shortcuts such as 'switch-php83' instead of typing 'switch-php 83'.

Adding a New PHP Version

Example: Adding PHP 8.6

```
brew install php@8.6
```

Add a new case entry:

```
86) formula="php@8.6" ;;
```

Add the version to the unlink loop:

```
for f in php php@8.1 php@8.2 php@8.3 php@8.4 php@8.5 php@8.6; do
  brew unlink "$f" 2>/dev/null
done
```

Add a shortcut alias:

```
alias switch-php86='switch-php 86'
```

After updating your shell configuration file (such as ~/.zshrc), reload it using 'source ~/.zshrc'. You can then activate the new version with 'switch-php86'.