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Department of Computer Add We hive mative edu_assist_pr

Contents

Special types
 NULL

Assignment Project Exam Help
Conditional statements

Swi

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3 Functions

Defining a function Calling of the Chat edu_assist_properties Calling of

Variable-length argument lists

Functions and HTML

4 PHP libraries Include/Require

NULL

- NULL is both a special type and a value
- NULL is the only value of type NULL.

 Substitution of type
- A variable has both type NULL and value NULL in the following three situat
 - https://eduassistpro.github.
 - 3 The variable has been unset using the unset operation
- There are a fariety of functions that can be used to test sist provided in the construction of the co
 - bool isset(\$variable)

 TRUE iff \$variable\$ exists and does not have value NULL
 - bool is_null(expr)

 TRUE iff expr is identical to NULL

NULL

Warning: Using NULL with == may lead to counter-intuitive results

```
d = array();
 ssignment Project Exam Help
 array() {
 echo 'is
 is_nul https://eduassistpro.github.
 $d === null: FALSE
 echo 'd_{\square}=_{\square}null:', (d=null) ? "TRUEn": "FALS
 *d = Add WeChat edu_assist_pr
Type juggling means that an empty array is (loosely) eq
```

but not identical (strictly equal) to NULL

Resources

Special types

A resource is a reference to an external resource and corresponds to a Perl filehandle

A SSIPPIPE MENTE PROJECT Exam Help
Returned file pointer resource for Jilename access using mode on succe

tps://eduassistpro.github. Mod read/write file write file 'w' ୖୂMat√edu_assist_pr w+append file yes 'a+' read/append file yes write file yes 'x+' read/write file yes

See http://www.php.net/manual/en/resource.php for further details

Resources

- bool fclose(resource)
 - Closes the resource

Assignments Project Exam Help string fgets (resource [, length])

- Ret retunttps://eduassistpro.github.
 - have been read, or a newline or on EOF (whichever com
- Stringford rewine Central edu_assist_presented to Returns length characters read from re
- \$handle = fopen('somefile.txt', 'r');
 while (\$line = fgets(\$handle)) {
 // processing the line of the file
 }
 fclose(\$handle);

Resources

- int fwrite(resource, string [, length])
- Writes a string to a resource

 ASSI PHIME MINE TO SATE OF THE BYTES AND THE WITHER THE END OF THE STATE OF THE PROPERTY OF T
 - int

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- : Wri https://eduassistpro.github.
- int vfprintf (resource, format,
 - Writes the Herients of an aray to a resource of the given assist_production of the company of
- \$handle = fopen('somefile.txt', 'w');
 fwrite(\$handle,"Hello World!".PHP_EOL); // 'logical newline'

fclose(\$handle);
In contrast to Perl, in PHP \n always represents the character with ASCII

code 10 not the platform dependent newline \rightarrow use PHP_EOL instead

Lecture 11

Slide L11 - 6

Control structures: conditional statements

The general format of conditional statements is very similar but not identical to that in Java and Perl:

```
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| elseif (condition) {
| sta |
| the sta |
| sta
```

- the elseif-clauses is optional and there can be more the Note: As (if (i) stev to esign at edu_assist_property)
- the else-clause is optional but there can be at most one
- in contrast to Perl, the curly brackets can be omitted if there is only a single statement in a clause

Control structures: conditional statements/expressions

• PHP allows to replace curly brackets with a colon: combined with an endif at the end of the statement:

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```
https://eduassistpro.github.
```

This also works for the switch statement in PHP

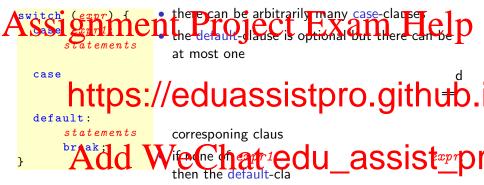
However the entary enter the statements are used and I

• PHP also supports conditional expressions

```
condition ? if\_true\_expr : if\_false\_expr
```

Control structures: switch statement

A switch statement in PHP takes the following form



- break 'breaks out' of the switch statement
- if a clause does not contain a break command, then execution moves to the next clause

Control structures: switch statement

Example:

```
switch ($command) {
 ssignment Project Exam Help
 case "South":
 *https://eduassistpro.github.
   $x += 1; break;
 case "Search":
   if A dd double edu_assist_pr
    else
      echo "Nothing here\n";
   break:
 default:
   echo "Not a valid command\n"; break;
```

Control structures: switch statement

Not every case-clause needs to have associated statements

```
Example:
ssignment Project Exam Help
       case 10:
              case 12:
 https://eduassistpro.github.
   $days = 30;
   break:
 ***Add WeChat edu_assist_pr
   break:
 default:
   days = 0;
   break;
```

Control structures: while- and do while-loops

• PHP offers while-loops and do while-loops

while (condition) {

• As usual, curly brackets can be omitted if the loop consists of only one statement

Example Add WeChat edu_assist_pr

Control structures: for-loops

for-loops in PHP take the form

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Again

consishttps://eduassistpro.github.

statement, separated by commas instead of semi

Example: Add We Chat edu_assist_properties of the state of the state

3 - 3 - 9 4 - 2 - 8

± - 2 - 0 5 - 1 - 5

- 0 - 0

Control structures: break and continue

• The break command can also be used in while-, do while-, and for-loops and discontinues the execution of the loop

```
Asignmenty Project Exam Help
```

• The chttps://eduassistpro.github.

Functions

Functions are defined as follows in PHP:

```
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```

- Funct. *https://eduassistpro.github.
- The function name must be followed by parenthes
- A function the der week at the parameters can be given a default value using __assist_pr

```
param = const_expr
```

 When using default values, any defaults must be on the right side of any parameters without defaults

Functions

Functions are defined as follows in PHP:

```
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```

The ret

ւա հիttps://eduassistpro.github. value the return value of the function

- The return value does not have to be scalar value
 A function and contain respect that at real statem assist_property.
- Different return statements can return values of different types

Calling a function

A function is called by using the function name followed by a list of arguments in parentheses

```
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```

- The list ttps://eduassistpro.github.

Example:

```
function sum($num1,$num2) {
  return $num1+$num2;
}
echo "sum:",sum(5,4),"\n";
$sum = sum(3,2);
```

Variables

PHP distinguishes three categories of variables:

- Assignment Project Exam Help
 - Globa
 - Static https://eduassistpro.github. value between separate calls of the function

By defaul Averages WHP (re partite estite assist provides in Perl are by default global)

PHP functions: Example

```
function bubble_sort($array) {
 // $array, $size, $i, $j are all local
 ssignment Project. Exam. Help
 $size = count($array);
 for (\$i=0)
     https://eduassistpro.github.
 return $array;
functio Add a WeChat edu_assist_pr
 // swap expects a reference (to an array)
 $tmp = $array[$i];
 $array[$i] = $array[$j];
 $array[$i] = $tmp;
```

Sorted array 1, 2, 3, 4, 5, 6, 8, 9

PHP functions: Example

```
function bubble_sort($array) {
Assignment Project Exam Help
                       function swa
                                            $\frac{1}{3\text{array}}$ ttps://eduassistpro.github.
                       \frac{1}{2} \frac{1}
                       echo "BeAreldrt W echhat edu "assist_propertied and control of the control of the
                       echo "After sorting ", join(", ", $array), "\n";
                       echo "Sorted array ", join(", ",$sorted), "\n";
                       Before sorting 2, 4, 3, 9, 6, 8, 5, 1
                       After sorting 2, 4, 3, 9, 6, 8, 5, 1
```

Functions and global variables

A variable is declared to be global using the keyword global

```
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sx = https://eduassistpro.github.
```

- an otherwise local variable is made accessible ou scop using the Chat edu assist production and global variables with the same name refer to the chat edu assist production and the company of the chat edu assist production and the chat edu assist production and
- → all global variables with the same name refer to th storage location/data structure
- → an unset operation removes a specific variable, but leaves other (global) variables with the same name unchanged

PHP functions and Global variables

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```
function modify_or_destroy_var($arg) {
 global $x, $y;
 SS1gnnent Project Exam: Help
x = 2; y = 3; z = 4;
echo "1: \x = \x, \y = \y
** * https://eduassistpro.github.
echo "2: \x = $x, \y = $y, \z = $z\n"
PHP Notice: Undefined variable: z in script on line 9
2: $x = Add We Chat edu_assist_pr
echo "3: \x = x, \y = y\n";
3: $x = 6, $y = 3
modify_or_destroy_var(true);
echo "4: \x = x, \y = y\n";
PHP Notice: Undefined variable: x in script on line 4
4: $x = 6, $y = 3
```

Lecture 11

Slide L11 - 22

PHP functions and Static variables

• A variable is declared to be static using the keyword static and should be combined with the assignment of an initial value (initialisation)

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```
1 functi
2 $coun nttps://eduassistpro.github.
3 echo 1: pos://eduassistpro.github.
4 echo "2: static \$count = ",counter(),"\n";
5 echo "3: static \$count = ",counter(),"\n";
6 echo "A: global fount = 5
1: global $count = 5
2: static $count = 0
3: static $count = 1
```

4: global \$count = 5

Functions and HTML

 It is possible to include HTML markup in the body of a function definition

Assignment in Respect Person Help • A call of the function will execute the PHP scripts, insert the output

into th

```
** https://eduassistpro.github.
<form action="process_form.php" method=POST">
<label>First Name: <input type="text" name="f" value="<?php echo $fn?>"></label><br>
print_form("Ullrich","Hustadt");
?>
<form action="process_form.php" method=POST">
<label>First Name: <input type="text" name="f" value="Ullrich"></label><br>
<label>Last Name<b>*</b>:<input type="text" name="l" value="Hustadt"></label><br>
<input type="submit" name="submit" value="Submit"> <input type=reset>
</form>
```

Functions with variable number of arguments

The number of arguments in a function call is allowed to exceed the number of its parameters

- Ask ignituation (specific transformed properties)

 int func_num_args()

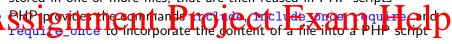
 return
 - mixe https://eduassistpro.github.
 - array func_get_args()

returns An array with copies of the arguments passe assist_production sum() { // no minimum number of arguments

```
function sum() { // no minimum number of arguments
  if (func_num_args() < 1) return null;
  $sum = 0;
  foreach (func_get_args() as $value) { $sum += $value; }
  return $sum;
}</pre>
```

Including and requiring files

 It is often convenient to build up libraries of function definitions, stored in one or more files, that are then reused in PHP scripts



includ

- * https://eduassistpro.github.
- The incorporated content inherits the scope of the li
- If no absolute relative cath is specifie of Uvill assist_profile.
 - first, in the directories in the include path include_path
 - second, in the script's directory
 - third, in the current working directory

librar

Including and requiring files

• Several include or require commands for the same library file results in the file being incorporated several times

A Solfiginaring in the Pharoger est Its in a gram Help Several include once or require once commands for the same

- If a libratory://eduassistpro.github.
- If a library file requested by require a found, All generates a for an adps ecolor o assist property script

PHP Libraries: Example

require_once 'mylibrary.php';
\$array = array(2,4,3,9,6,8,5,1);
\$sorted = bubble_sort(\$array);

mylibrary.php

```
Aussignment Project Exam Help

return $array;

function the ps://eduassistpro.github.

example Add WeChat edu_assist_pro
```

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<?php

?>

Revision

Read

• Chapter 4: Expressions and Control Flow in PHP

Assignment of Project Exam Help Chapter 7: Practical PHP

of

R. Nixonhttps://eduassistpro.github.

O'Reilly, 2009.

- http://www.php.net/manual/en/language.f
- http://uk.php.net/manual/en/function.include.php
- http://uk.php.net/manual/en/function.include-once.php
- http://uk.php.net/manual/en/function.require.php
- http://uk.php.net/manual/en/function.require-once.php