

PHP 1

1 PHP – The Basics

Setting up the development environment (Windows, Linux or Mac OS)

Windows

Linux

MacOS

Text editors

The first PHP program (Welcome the whole world)

HTML Embedding

Comments

Variables

The Data Types

Constants

Operators

2 Strings

Accessing Substrings

Extracting Substrings

Replacing Substrings

Processing a String One Byte at a Time

Reversing a String by Word or Byte

Generating a Random String

Expanding and Compressing Tabs

Controlling Case

Interpolating Functions and Expressions Within Strings

Trimming Blanks from a String

Generating Comma-Separated Data

Parsing Comma-Separated Data

Generating Fixed-Width Field Data Records

Parsing Fixed-Width Field Data Records

Taking Strings Apart

Wrapping Text at a Certain Line Length

Storing Binary Data in Strings

Program: Downloadable CSV File

3 Numbers

Checking Whether a Variable Contains a Valid Number

Comparing Floating-Point Numbers

Rounding Floating-Point Numbers

Operating on a Series of Integers

Generating Random Numbers Within a Range

Generating Predictable Random Numbers

Generating Biased Random Numbers

Taking Logarithms

Calculating Exponents

Formatting Numbers

Formatting Monetary Values

Printing Correct Plurals

Calculating Trigonometric Functions

Doing Trigonometry in Degrees, Not Radians

Handling Very Large or Very Small Numbers

Converting Between Bases

Calculating Using Numbers in Bases Other Than Decimal

Finding the Distance Between Two Places

4 Dates and Times

Finding the Current Date and Time

Converting Time and Date Parts to an Epoch Timestamp

Converting an Epoch Timestamp to Time and Date Parts

Printing a Date or Time in a Specified Format

Finding the Difference of Two Dates

Finding the Day in a Week, Month, or Year

Validating a Date

Parsing Dates and Times from Strings

Adding to or Subtracting from a Date

Calculating Time with Time Zones and Daylight Saving Time

Generating a High-Precision Time

Generating Time Ranges

Using Non-Gregorian Calendars

Program: Calendar

5 Variables

Avoiding == Versus = Confusion

Establishing a Default Value

Exchanging Values Without Using Temporary Variables

Creating a Dynamic Variable Name

Persisting a Local Variable's Value Across Function Invocations

Sharing Variables Between Processes

Encapsulating Complex Data Types in a String

Dumping Variable Contents as Strings

6 The Control Structures

Fill variables with user information (GET / POST)

Identify and read GET variables

Identify and read POST variables

Conditions, program control (IF/ELSE/ELSEIF)

Case analysis (switch / case)

Loops for repetitive tasks (While / For / Foreach)

While() Loop

For() Loop

Foreach() loop

7 Arrays

Specifying an Array Not Beginning at Element 0

Storing Multiple Elements per Key in an Array

Initializing an Array to a Range of Integers

Iterating Through an Array

Deleting Elements from an Array

Changing Array Size

Appending One Array to Another

Turning an Array into a String

Printing an Array with Commas

Checking if a Key Is in an Array

Checking if an Element Is in an Array

Finding the Position of a Value in an Array

Finding Elements That Pass a Certain Test

Finding the Largest or Smallest Valued Element in an Array

Reversing an Array

Sorting an Array

Sorting an Array by a Computable Field

Sorting Multiple Arrays

Sorting an Array Using a Method Instead of a Function

Randomizing an Array

Removing Duplicate Elements from an Array

Applying a Function to Each Element in an Array

Finding the Union, Intersection, or Difference of Two Arrays

Iterating Efficiently over Large or Expensive Datasets

Accessing an Object Using Array Syntax

8 Functions

Accessing Function Parameters

Setting Default Values for Function Parameters

Passing Values by Reference

Using Named Parameters

Enforcing Types of Function Arguments

Creating Functions That Take a Variable Number of Arguments

Returning Values by Reference

Returning More Than One Value

Skipping Selected Return Values

Returning Failure

Calling Variable Functions

Accessing a Global Variable Inside a Function

Creating Dynamic Functions

9 Classes and Objects

Instantiating Objects

Defining Object Constructors

Defining Object Destructors

Implementing Access Control

Preventing Changes to Classes and Methods

Defining Object Stringification

Requiring Multiple Classes to Behave Similarly

Creating Abstract Base Classes

Assigning Object References

Cloning Objects

Overriding Property Accesses

Calling Methods on an Object Returned by Another Method

Aggregating Objects

Accessing Overridden Methods

Creating Methods Dynamically

Using Method Polymorphism

Defining Class Constants

Defining Static Properties and Methods

Controlling Object Serialization

Introspecting Objects

Checking If an Object Is an Instance of a Specific Class

Autoloading Class Files upon Object Instantiation

Instantiating an Object Dynamically

Program: whereis