Beginner's Essential

PHP CHEAT SHEET

Fast, flexible and pragmatic scripting language.



Table of Contents

| PHP Basics | 2 |
|-----------------------------|----|
| Variables and Constants | 2 |
| PHP Arrays - Grouped Values | 7 |
| PHP Strings | 13 |
| PHP Operators | 21 |
| Loops in PHP | 23 |
| Conditional Statements | 23 |
| Working with Forms in PHP | 24 |
| Regular Expressions | 26 |
| PHP Functions | 28 |
| PHP Filters | 29 |
| HTTP Functions in PHP | 31 |
| Working with MySQL | 31 |
| Date and Time | 36 |
| PHP Errors | 40 |

PHP BASICS

VARIABLES AND CONSTANTS

Defining Variables

```
<?php
$BlogPostTitle = "PHP Cheat Sheet";
?>
```

Types of Data

Integers

Integers are non-decimal numbers between -2,147,483,648 and 2,147,483,647. They must have at least one digit and no decimal point. Can be in decimal, hexadecimal or octal.

Floats

This is the name for numbers with a decimal point or in exponential form.

Strings

This simply means text, we will talk about it in detail further below.

Boolean values

Meaning true/false statements.

Arrays

Arrays are variables that store several values. We will talk about them in detail further below.

Objects

Objects store both data and information on how to process it.

Resources

These are references to functions and resources outside of PHP.

NULL

A variable that is NULL doesn't have any value.

Variable Scope

```
function myFunction() {
    global $a, $b;
    $b = $a - $b;
}
```

Predefined Variables

\$GLOBALS

Used to access global variables from anywhere inside a PHP script.

\$ SERVER

Contains information about the locations of headers, paths and scripts.

\$ GET

Can collect data that was sent in the URL or submitted in an HTML form.

\$ POST

Used to gather data from an HTML form and to pass variables.

\$ REQUEST

Also collects data after submitting an HTML form

Variable-handling Functions

boolval

Used to retrieve the boolean value of a variable

debug zval dump

Outputs a string representation of an internal zend value

empty

Checks whether a variable is empty or not

floatval

Get the float value of a variable (doubleval is another possibility)

get defined vars

Returns an array of all defined variables

get_resource_type

Returns the resource type

gettype

Retrieves the variable type

```
import request variables
```

Import GET/POST/Cookie variables into the global scope

intval

Find the integer value of a variable

is_array

Checks whether a variable is an array

is bool

Finds out if a variable is a boolean of 538

is callable

Verify whether you can call the contents of a variable as a function

is countable

Check whether the contents of a variable are countable

is float

Find out if the type of a variable is float, alternatives: is_double and is_real

is int

Check if the type of a variable is an integer, is_integer and is_long also works

is iterable

Verify that a variable's content is an iterable value

is null

Checks whether a variable's value is NULL

is numeric

Find out if a variable is a number or a numeric string

is object

Determines whether a variable is an object

is resource

Check if a variable is a resource

is scalar

Tests if a variable is a scalar

```
is string
Find out whether the type of a variable is a string
Determine if a variable has been set and is not NULL
print r
Provides human-readable information about a variable
serialize
Generates a representation of a value that is storable
settype
Sets a variable's type
strval
Retrieves the string value of a variable
unserialize
Creates a PHP value from a stored representation
unset
Unsets a variable
var dump
Dumps information about a variable
var export
Outputs or returns a string representation of a variable that can be
parsed
Constants
define(name, value, true/false)
Aside from user-defined constants, there also a number
of default PHP constants:
LINE
Denotes the number of the current line in a file
FILE
```

Is the full path and filename of the file

```
__DIR__
The directory of the file

__FUNCTION__
Name of the function

__CLASS__
Class name, includes the namespace it was declared in

__TRAIT__
The trait name, also includes the namespace

__METHOD__
The class method name

__NAMESPACE__
Name of the current namespace
```

PHP ARRAYS - GROUPED VALUES

Array Functions

```
array change key case
```

Changes all keys in an array to uppercase or lowercase

```
array chunk
Splits an array into chunks
array column
Retrieves the values from a single column in an array
array combine
Merges the keys from one array and the values from another into a new
array count values
Counts all values in an array
array diff
Compares arrays, returns the difference (values only
array diff assoc
Compares arrays, returns the difference (values and keys)
array diff key
Compares arrays, returns the difference (keys only)
array diff uassoc
Compares arrays (keys and values) through a user callback function
array diff ukey
Compares arrays (keys only) through a user callback function
array fill
Fills an array with values
array fill keys
Fills an array with values, specifying keys
array filter
Filters the elements of an array via a callback function
array flip
Exchanges all keys in an array with their associated values
array intersect
Compare arrays and return their matches (values only)
```

```
array intersect assoc
Compare arrays and return their matches (keys and values)
array intersect key
Compare arrays and return their matches (keys only)
array intersect uassoc
Compare arrays via a user-defined callback function (keys and values)
array intersect ukey
Compare arrays via a user-defined callback function (keys only)
array key exists
Checks if a specified key exists in an array, alternative: key exists
array keys
Returns all keys or a subset of keys in an array
array_map
Applies a callback to the elements of a given array
array merge
Merge one or several arrays
array merge recursive
Merge one or more arrays recursively
array multisort
Sorts multiple or multi-dimensional arrays
array pad
Inserts a specified number of items (with a specified value) into an
array
array pop
Deletes an element from the end of an array
array product
Calculate the product of all values in an array
array push
Push one or several elements to the end of the array
```

array rand

Pick one or more random entries out of an array

array reduce

Reduce the array to a single string using a user-defined function

array replace

Replaces elements in the first array with values from following arrays

array replace recursive

Recursively replaces elements from later arrays into the first array

array reverse

Returns an array in reverse order

array search

Searches the array for a given value and returns the first key if successful

array shift

Shifts an element from the beginning of an array

array slice

Extracts a slice of an array

array splice

Removes a portion of the array and replaces it

array sum

Calculate the sum of the values in an array

array udiff

Compare arrays and return the difference using a user function (values only)

array udiff assoc

Compare arrays and return the difference using a default and a user function (keys and values)

array udiff uassoc

Compare arrays and return the difference using two user functions (values and keys)

array uintersect

Compare arrays and return the matches via user function (values only)

array uintersect assoc

Compare arrays and return the matches via a default user function (keys and values)

array uintersect uassoc

Compare arrays and return the matches via two user functions (keys and values)

array unique

Removes duplicate values from an array

array unshift

Adds one or more elements to the beginning of an array

array values

Returns all values of an array

array walk

Applies a user function to every element in an array

array walk recursive

Recursively applies a user function to every element of an array

arsort

Sorts an associative array in descending order according to the value

asort

Sorts an associative array in ascending order according to the value

compact

Create an array containing variables and their values

count

Count all elements in an array, alternatively use sizeof

current

Returns the current element in an array, an alternative is pos

each

Return the current key and value pair from an array

end

Set the internal pointer to the last element of an array

extract

Import variables from an array into the current symbol table

in array

Checks if a value exists in an arraykeyFetches a key from an array

krsort

Sorts an associative array by key in reverse order

ksort

Sorts an associative array by key

list

Assigns variables as if they were an array

natcasesort

Sorts an array using a "natural order" algorithm independent of case

natsort

Sorts an array using a "natural order" algorithm

next

Advance the internal pointer of an array

prev

Move the internal array pointer backwards

range

Creates an array from a range of elements

reset

Set the internal array pointer to its first element

rsort

Sort an array in reverse order

shuffle

Shuffle an array

sort

Sorts an indexed array in ascending order

uasort

Sorts an array with a user-defined comparison function

uksort

Arrange an array by keys using a user-defined comparison function

usort

Categorize an array by values using a comparison function defined by the user

PHP STRINGS

Defining Strings

Single quotes

This is the simplest way. Just wrap your text in ' markers and PHP will handle it as a string.

Double quotes

As an alternative you can use ". When you do, it's possible to use the escape characters below to display special characters.

heredoc

Begin a string with <<< and an identifier, then put the string in a new line. Close it in another line by repeating the identifier. heredoc behaves like double-quoted strings.

nowdoc

Is what heredoc is for double-quoted strings but for single quotes. It works the same way and eliminates the need for escape characters.

Escape Characters

 \n - Line feed

\r - Carriage return

\t - Horizontal tab

\v - Vertical tab

\e - Escape

\f - Form feed

\\ - Backslash

\\$ - Dollar sign

```
\' - Single quote
\" - Double quote
\[0-7]{1,3}
                      - Character in octal notation
\x[0-9A-Fa-f]{1,2} - Character in hexadecimal notation \u{[0-9A-Fa-f]+} - String as UTF-8 representation
String Functions
addcslashes()
Returns a string with backslashes in front of specified characters
Returns a string with backslashes in front of characters that need to
be escaped
bin2hex()
Converts a string of ASCII characters to hexadecimal values
chop()
Removes space or other characters from the right end of a string
chr()
Returns a character from a specified ASCII value
chunk split()
Splits a string into a series of smaller chunks
convert cyr string()
Converts a string from a Cyrillic character set to
anotherconvert uudecode()
Decodes a uuencoded
stringconvert uuencode()
Encodes a string using
uuencodecount chars()
Returns information about the characters in a string
crc32()
Calculates a 32-bit CRC for a string
crypt()
```

```
Returns a hashed string
echo() or echo ''
Outputs one or several strings
explode()
Breaks down a string into an array
fprintf()
Writes a formatted string to a specified output stream
get html translation table()
Returns the translation table used by htmlspecialchars() and
htmlentities()
hebrev()
Transforms Hebrew text to visual
texthebrevc()
Converts Hebrew text to visual text and implements HTML line breaks
hex2bin()
Translate hexadecimal values to ASCII characters
html entity decode()
Turns HTML entities to characters
htmlentities()
Converts characters to HTML entities
htmlspecialchars decode()
Transforms special HTML entities to characters
htmlspecialchars()
Switches predefined characters to HTML entities
implode()
Retrieves a string from the elements of an array, same as join()
lcfirst()
Changes a string's first character to lowercase
levenshtein()
```

```
Calculates the Levenshtein distance between two strings
localeconv()
Returns information about numeric and monetary formatting for the
locale
ltrim()
Removes spaces or other characters from the left side of a string
md5()
Calculates the MD5 hash of a string and returns it
md5 file()
Calculates the MD5 hash of a file
metaphone()
Provides the metaphone key of a string
money format()
Returns a string as a currency string
nl langinfo()
Gives specific locale information
nl2br()
Inserts HTML line breaks for each new line in a string
number format()
Formats a number including grouped thousands
ord()
Returns the ASCII value of a string's first character
parse str()
Parses a string into variables
print()
Outputs one or several strings
printf()
Outputs a formatted string
quoted printable decode()
```

```
Converts a quoted-printable string to 8-bit binary
quoted printable encode()
Goes from 8-bit string to a quoted-printable string
quotemeta()
Returns a string with a backslash before metacharacters
rtrim()
Strips whitespace or other characters from the right side of a string
setlocale()
Sets locale information
sha1()
Calculates a string's SHA-1 hash
sha1 file()
Does the same for a file
similar text()
Determines the similarity between two strings
soundex()
Calculates the soundex key of a string
sprintf()
Returns a formatted string
sscanf()
Parses input from a string according to a specified format
str getcsv()
Parses a CSV string into an array
str ireplace()
Replaces specified characters in a string with specified replacements
(case-insensitive)
str pad()
Pads a string to a specified length
str repeat()
```

```
Repeats a string a preset number of times
str replace()
Replaces specified characters in a string (case-sensitive)
str rot13()
Performs ROT13 encoding on a string
str shuffle()
Randomly shuffles the characters in a string
str split()
Splits strings into arrays
str word count()
Returns the number of words in a string
strcasecmp()
Case-insensitive comparison of two strings
strcmp()
Binary safe string comparison (case sensitive)
strcoll()
Compares two strings based on locale
strcspn()
Returns the number of characters found in a string before the
occurrence of specified characters
strip tags()
Removes HTML and PHP tags from a string
stripcslashes()
Opposite of addcslashes()
stripslashes()
Opposite of addslashes()
stripos()
Finds the position of the first occurrence of a substring within a
string (case insensitive)
stristr()
```

```
Case-insensitive version of strstr()
strlen()
Returns the length of a string
strnatcasecmp()
Case-insensitive comparison of two strings using a "natural order"
algorithm
strnatcmp()
Same as the aforementioned but case sensitive
strncasecmp()
String comparison of a defined number of characters (case insensitive)
strncmp()
Same as above but case-sensitive
strpbrk()
Searches a string for any number of characters
strpos()
Returns the position of the first occurrence of a substring in a
string (case sensitive)
strrchr()
Finds the last occurrence of a string within another string
strrev()
Reverses a string
strripos()
Finds the position of the last occurrence of a string's substring
(case insensitive)
strrpos()
Same as strripos() but case sensitive
strspn()
The number of characters in a string with only characters from a
specified list
strstr()
```

```
Case-sensitive search for the first occurrence of a string inside
another string
strtok()
Splits a string into smaller chunks
strtolower()
Converts all characters in a string to lowercase
strtoupper()
Same but for uppercase letters
strtr()
Translates certain characters in a string, alternative: strchr()
substr()
Returns a specified part of a string
substr compare()
Compares two strings from a specified start position up to a certain
length, optionally case sensitive
substr count()
Counts the number of times a substring occurs within a string
substr replace()
Replaces a substring with something else
trim()
Removes space or other characters from both sides of a string
ucfirst()
Transforms the first character of a string to uppercase
ucwords()
Converts the first character of every word in a string to uppercase
vfprintf()
Writes a formatted string to a specified output stream
vprintf()
Outputs a formatted string
vsprintf()
```

```
Writes a formatted string to a variable
```

wordwrap()

Shortens a string to a given number of characters

PHP OPERATORS

Arithmetic Operators

```
+ - Addition
- - Subtraction
* - Multiplication
/ - Division
- Modulo (the remainder of value divided by another)
** - Exponentiation
```

Assignment Operators

```
+= - a += b is the same as a = a + b

-= - a -= b is the same as a = a - b

*= - a *= b is the same as a = a * b

/= - a /= b is the same as a = a / b

%= - a %= b is the same as a = a % b
```

Comparison Operators

```
== - Equal
=== - Identical
!= - Not equal
!= - Not identical
< - Less than
> - Greater than
<= - Less than or equal to
>= - Greater than or equal to
<=> - Less than, equal to, or greater than
```

Logical Operators

```
and - And
or - Or
xor - Exclusive or
! - Not
&& - And
| | - Or
```

Bitwise Operators

```
& - And
| - Or (inclusive or)
^ - Xor (exclusive or)
~ - Not
<< - Shift left
>> - Shift right
```

Error Control Operator

You can use the @ sign to prevent expressions from generating error messages. This is often important for security reasons, for example to keep confidential information safe.

Execution Operator

PHP supports one execution operator, which is `` (backticks). These are not single-quotes! PHP will attempt to execute the contents of the backticks as a shell command.

Increment/Decrement Operators

```
++$v
```

Increments a variable by one, then returns it

\$v++

Returns a variable, then increments it by one

--\$v

Decrements the variable by one, returns it afterward

\$v--

Returns the variable then decrements it by one

String Operators

•

Used to concatenate (mean combine) arguments

.=

Used to append the argument on the right to the left-side argument

LOOPS IN PHP

```
For Loop
for (starting counter value; ending counter value; increment by which
to increase) {
   // code to execute goes here
}

Foreach Loop
foreach ($InsertYourArrayName as $value) {
        // code to execute goes here
}

While Loop
while (condition that must apply) {
        // code to execute goes here
}

Do..While Loop
do {
        // code to execute goes here;
} while (condition that must apply);
```

CONDITIONAL STATEMENTS

```
If Statement
if (condition) {
      // code to execute if condition is met
}

If..Else
if (condition) {
      // code to execute if condition is met
} else {
      // code to execute if condition is not met
}
```

If..Elseif..Else

```
if (condition) {
      // code to execute if condition is met
} elseif (condition) {
      // code to execute if this condition is met
} else {
      // code to execute if none of the conditions are met
}
```

Switch Statement

```
switch (n) {
    case x:
        code to execute if n=x;
        break;

case y:
        code to execute if n=y;
        break;

case z:
        code to execute if n=z;
        break;

// add more cases as needed
    default:
        code to execute if n is neither of the above;
}
```

WORKING WITH FORMS IN PHP

Using GET vs POST

GET collects data via URL parameters. That means all variable names and their values are contained in the page address.

The advantage of this is that you're able to bookmark the information. Keep in mind that it also means that the information is visible to everyone. For that reason, GET is not suitable for sensitive information such as passwords. It also limits the amount of data that can be sent in ca 2000 characters.

POST, on the other hand, uses the HTTP POST method to pass on variables. This makes the data invisible to third parties, as it is sent in the HTTP body. You are not able to bookmark it.

With POST, there are no limits to the amount of information you can send. Aside from that, it also has advanced functionality and is therefore preferred by developers.

Form Security

```
PHP offers tools to thwart those attacks, namely:
htmlspecialchars()
trim()
stripslashes()
```

Required Fields, Error Messages and Data Validation

Aside from that, PHP is able to define required fields (you can't submit the form without filling them out), display error messages if some information is missing and to validate data. We have already talked about the necessary tools to do so.

For example, you can simply define variables for your form fields and use the empty() function to check if they have values. After that, create a simple if/else statement to either send the submitted data or output an error message.

The next step is to check submitted data for validity. For that, PHP offers a number of filters such as FILTER_VALIDATE_EMAIL to make sure a submitted email address has the right format.

Regular Expressions (RegEx)

Syntax

```
$exp = "/w3schools/i";
```

RegEx Functions

```
preg_match()
```

Returns 1 if the pattern was found in the string and 0 if not

```
preg match all()
```

Returns the number of times the pattern was found in the string, which may also be $\boldsymbol{0}$

```
preg replace()
```

Returns a new string where matched patterns have been replaced with another string

RegEx Modifiers

á

Performs a case-insensitive search

m

Performs a multiline search (patterns that search for the beginning or end of a string will match the beginning or end of each line)

u

Enables correct matching of UTF-8 encoded patterns

RegEx Patterns

```
[abc] - Find one character from the options between the brackets
[^abc] - Find any character NOT between the brackets
[0-9] - Find one character from the range 0 to 9
```

Metacharacters

Find a match for any one of the patterns separated by | as in: cat|dog|fish

.

Find just one instance of any character

^

Finds a match as the beginning of a string as in: ^Hello

Ś

Finds a match at the end of the string as in: World\$

\d

Find a digit

\s

Find a whitespace character

```
\b
```

Find a match at the beginning of a word like this: \bWORD, or at the end of a word like this: WORD\b

\uxxxx

Find the Unicode character specified by the hexadecimal number xxxx

Quantifiers

```
n+
Matches any string that contains at least one n
n*
Matches any string that contains zero or more occurrences of n
n?
Matches any string that contains zero or one occurrences of n
n{x}
Matches any string that contains a sequence of X n's
n{x,y}
Matches any string that contains a sequence of X to Y n's
n{x,}
```

Matches any string that contains a sequence of at least X n's

Grouping

Use parentheses () to apply quantifiers to entire patterns. They cal also be used to select parts of the pattern to be used as a match.

```
<?php
$str = "Apples and bananas.";
$pattern = "/ba(na){2}/i";
echo preg_match($pattern, $str); // Outputs 1
?>
```

PHP Functions

- A function is a block of statements that can be used repeatedly in a program.
- A function will not execute automatically when a page loads.
- A function will be executed by a call to the function.

Syntax

```
function functionName() {
  code to be executed;
}
functionName();
```

Function Arguments

```
<?php
function familyName($fname, $year) {
   echo "$fname Refsnes. Born in $year <br>;
}

familyName("Hege", "1975");
familyName("Stale", "1978");
familyName("Kai Jim", "1983");
?>
```

Default Argument Value

```
<?php declare(strict_types=1); // strict requirement
function setHeight(int $minheight = 50) {
   echo "The height is: $minheight <br>";
}
setHeight(350);
setHeight(1); // will use the default value of 50
setHeight(135);
setHeight(80);
?>
```

Returning values

```
<?php declare(strict_types=1); // strict requirement
function sum(int $x, int $y) {
   $z = $x + $y;
   return $z;
}
echo "5 + 10 = " . sum(5, 10) . "<br>'';
echo "7 + 13 = " . sum(7, 13) . "<br>'';
echo "2 + 4 = " . sum(2, 4);
?>
```

PHP FILTERS

```
Filter Functions
filter has var()
Checks if a variable of the specified type exists
filter id()
Returns the ID belonging to a named filter
filter input()
Retrieves a specified external variable by name and optionally filters
it
filter input array()
Pulls external variables and optionally filters them
filter list()
Returns a list of all supported filters
filter var array()
Gets multiple variables and optionally filters them
filter var()
Filters a variable with a specified filter
Filter Constants
FILTER VALIDATE BOOLEAN
Validates a boolean
FILTER VALIDATE EMAIL
Certifies an e-mail address
FILTER VALIDATE FLOAT
Confirms a float
FILTER VALIDATE INT
Verifies an integer
```

```
FILTER VALIDATE IP
Validates an IP address
FILTER VALIDATE REGEXP
Confirms a regular expression
FILTER VALIDATE URL
Validates a URL
FILTER SANITIZE EMAIL
Removes all illegal characters from an e-mail address
FILTER SANITIZE ENCODED
Removes/Encodes special characters
FILTER SANITIZE MAGIC QUOTES
Applies addslashes()
FILTER SANITIZE NUMBER FLOAT
Removes all characters, except digits, +- and .,eE
FILTER SANITIZE NUMBER INT
Gets rid of all characters except digits and + -
FILTER SANITIZE SPECIAL CHARS
Removes special characters
FILTER SANITIZE FULL SPECIAL CHARS
Converts special characters to HTML entities
FILTER SANITIZE STRING
Removes tags/special characters from a string, alternative:
FILTER SANITIZE STRIPPED
FILTER SANITIZE URL
Rids all illegal characters from a URL
FILTER UNSAFE RAW
Do nothing, optionally strip/encode special characters
FILTER CALLBACK
Call a user-defined function to filter data
```

HTTP FUNCTIONS IN PHP

HTTP Functions header() Sends a raw HTTP header to the browser headers_list() A list of response headers ready to send (or already sent) headers_sent() Checks if and where the HTTP headers have been sent setcookie() Defines a cookie to be sent along with the rest of the HTTP headers setrawcookie() Defines a cookie (without URL encoding) to be sent along

WORKING WITH MYSQL

```
MySQL Functions
```

```
mysqli_affected_rows()
The number of affected rows in the previous MySQL operation
mysqli_autocommit()
Turn auto-committing database modifications on or off
mysqli_change_user()
Changes the user of the specified database connection
mysqli_character_set_name()
The default character set for the database connection
mysqli_close()
Closes an open database connection
mysqli_commit()
Commits the current transaction
```

```
mysqli connect errno()
The error code from the last connection error
mysqli connect error()
The error description from the last connection error
mysqli connect()
Opens a new connection to the MySQL server
mysqli data seek()
Moves the result pointer to an arbitrary row in the result set
mysqli debug()
Performs debugging operations
mysqli dump debug info()
Dumps debugging information into a log
mysqli errno()
The last error code for the most recent function call
mysqli error list()
A list of errors for the most recent function call
mysqli error()
The last error description for the most recent function call
mysqli fetch all()
Fetches all result rows as an array
mysqli fetch array()
Fetches a result row as an associative, a numeric array, or both
mysqli fetch assoc()
Fetches a result row as an associative array
mysqli fetch field direct()
Metadata for a single field as an object
mysqli fetch field()
The next field in the result set as an object
```

```
mysqli fetch fields()
An array of objects that represent the fields in a result set
mysqli fetch lengths()
The lengths of the columns of the current row in the result set
mysqli fetch object()
The current row of a result set as an object
mysqli fetch row()
Fetches one row from a result set and returns it as an enumerated
array
mysqli field count()
The number of columns for the most recent query
mysqli field seek()
Sets the field cursor to the given field offset
mysqli field tell()
The position of the field cursor
mysqli free result()
Frees the memory associated with a result
mysqli get charset()
A character set object
mysqli get client info()
The MySQL client library version
mysqli get client stats()
Returns client per-process statistics
mysqli get client version()
The MySQL client library version as an integer
mysqli get connection stats()
Statistics about the client connection
mysqli get host info()
The MySQL server hostname and the connection type
```

```
mysqli get proto info()
The MySQL protocol version
mysqli get server info()
Returns the MySQL server version
mysqli get server version()
The MySQL server version as an integer
mysqli info()
Returns information about the most recently executed
query mysqli init()
Initializes MySQLi and returns a resource for use with
mysqli real connect()
mysqli insert id()
Returns the auto-generated ID used in the last query
mysqli kill()
Asks the server to kill a MySQL thread
mysqli more results()
Checks if there are more results from a multi query
mysqli multi query()
Performs one or more queries on the database
mysqli next result()
Prepares the next result set from mysqli multi query()
mysqli num fields()
The number of fields in a result set
mysqli num rows()
The number of rows in a result set
mysqli options()
Sets extra connect options and affect behavior for a connection
mysqli ping()
Pings a server connection or tries to reconnect if it has gone down
```

```
mysqli prepare()
Prepares an SQL statement for execution
mysqli query()
Performs a query against the database
mysqli real connect()
Opens a new connection to the MySQL server
mysqli real escape string()
Escapes special characters in a string for use in an SQL statement
mysqli real query()
Executes an SQL query
mysqli reap async query()
Returns the result from async query
mysqli refresh()
Refreshes tables or caches or resets the replication server
information
mysqli rollback()
Rolls back the current transaction for the database
mysqli select db()
Changes the default database for the connection
mysqli set charset()
Sets the default client character set
mysqli set local infile default()
Unsets a user-defined handler for the LOAD LOCAL INFILE command
mysqli set local infile handler()
Sets a callback function for the LOAD DATA LOCAL INFILE command
mysqli sqlstate()
Returns the SQLSTATE error code for the last MySQL operation
mysqli ssl set()
Establishes secure connections using SSL
```

```
mysqli stat()
The current system status
mysqli stmt init()
Initializes a statement and returns an object for use with
mysqli stmt prepare()
mysqli store result()
Transfers a result set from the last query
mysqli thread id()
The thread ID for the current connection
mysqli thread safe()
Returns if the client library is compiled as thread-safe
mysqli use result()
Initiates the retrieval of a result set from the last query executed
using the mysqli real query()
mysqli warning count()
The number of warnings from the last query in the connection
```

DATE AND TIME

Date/Time Functions

```
checkdate()
Checks the validity of a Gregorian date

date_add()
Adds a number of days, months, years, hours, minutes and seconds to a
date object

date_create_from_format()
Returns a formatted DateTime object

date_create()
Creates a new DateTime object

date_date_set()
Sets a new date
```

```
date default timezone get()
Returns the default timezone used by all functions
date default timezone set()
Sets the default timezone
date diff()
Calculates the difference between two dates
date format()
Returns a date formatted according to a specific format
date get last errors()
Returns warnings or errors found in a date string
date interval create from date string()
Sets up a DateInterval from relative parts of a
string date interval format()
Formats an interval
date isodate set()
Sets a date according to ISO 8601 standards
date modify()
Modifies the timestamp
date offset get()
Returns the offset of the timezone
date parse from format()
Returns an array with detailed information about a specified date,
according to a specified format
date parse()
Returns an array with detailed information about a specified date
date sub()
Subtracts days, months, years, hours, minutes and seconds from a date
date sun info()
Returns an array containing information about sunset/sunrise and
twilight begin/end for a specified day and location
```

```
date sunrise()
The sunrise time for a specified day and location
date sunset()
The sunset time for a specified day and location
date time set()
Sets the time
date timestamp get()
Returns the Unix timestamp
date timestamp set()
Sets the date and time based on a Unix timestamp
date timezone get()
Returns the time zone of a given DateTime object
date timezone set()
Sets the time zone for a DateTime object
date()
Formats a local date and time
getdate()
Date/time information of a timestamp or the current local date/time
gettimeofday()
The current time
gmdate()
Formats a GMT/UTC date and time
gmmktime()
The Unix timestamp for a GMT date
gmstrftime()
Formats a GMT/UTC date and time according to locale settings
idate()
Formats a local time/date as an integer
```

```
localtime()
The local time
microtime()
The current Unix timestamp with microseconds
mktime()
The Unix timestamp for a date
strftime()
Formats a local time and/or date according to locale settings
strptime()
Parses a time/date generated with strftime()
strtotime()
Transforms an English textual DateTime into a Unix timestamp
time()
The current time as a Unix timestamp
timezone abbreviations list()
Returns an array containing dst, offset, and the timezone name
timezone identifiers_list()
An indexed array with all timezone identifiers
timezone location get()
Location information for a specified timezone
timezone name from abbr()
Returns the timezone name from an abbreviation
timezone name get()
The name of the timezone
timezone offset get()
The timezone offset from GMT
timezone open()
Creates a new DateTimeZone object
```

```
timezone_transitions_get()
Returns all transitions for the timezone
timezone_version_get()
Returns the version of the timezonedb
```

Date and Time Formatting

```
d - 01 to 31
j - 1 to 31
D - Mon through Sun
1 - Sunday through Saturday
N-1 (for Mon) through 7 (for Sat)
w - 0 (for Sun) through 6 (for Sat)
m - Months, 01 through 12
n - Months, 1 through 12
F - January through December
M - Jan through Dec
Y - Four digits year (e.g. 2018)
y - Two digits year (e.g. 18)
L - Defines whether it's a leap year (1 or 0)
a - am and pm
A - AM and PM
q - Hours 1 through 12
h - Hours 01 through 12
G - Hours 0 through 23
H - Hours 00 through 23
i - Minutes 00 to 59
s - Seconds 00 to 59
```

PHP ERRORS

Error Functions

```
debug_backtrace()
Used to generate a backtrace
debug_print_backtrace()
Prints a backtrace
error_get_last()
Gets the last error that occurred
```

```
error log()
Sends an error message to the web server's log, a file or a mail
account
error reporting()
Specifies which PHP errors are reported
restore error handler()
Reverts to the previous error handler function
restore exception handler()
Goes back to the previous exception handler
set error handler()
Sets a user-defined function to handle script errors
set exception handler()
Sets an exception handler function defined by the
user trigger error()
Generates a user-level error message, you can also use user error()
Error Constants
E ERROR
Fatal run-time errors that cause the halting of the script and can't
be recovered from
E WARNING
Non-fatal run-time errors, execution of the script continues
E PARSE
```

Compile-time parse errors, should only be generated by the parser

E NOTICE

Run-time notices that indicate a possible error

E CORE ERROR

Fatal errors at PHP initialization, like an E ERROR in PHP core

E CORE WARNING

Non-fatal errors at PHP startup, similar to E WARNING but in PHP core

E COMPILE ERROR

Fatal compile-time errors generated by the Zend Scripting Engine

E COMPILE WARNING

Non-fatal compile-time errors by the Zend Scripting Engine

E USER ERROR

Fatal user-generated error, set by the programmer using trigger error()

E USER WARNING

Non-fatal user-generated warning

E USER NOTICE

User-generated notice by trigger error()

E STRICT

Suggestions by PHP to improve your code (needs to be enabled)

E RECOVERABLE ERROR

Catchable fatal error caught by a user-defined handle

E DEPRECATED

Enable this to receive warnings about a code which is not future-proof

E USER DEPRECATED

User-generated warning for deprecated code

E ALL

All errors and warnings except E_STRICT