

# PHP - File Existence

It is often handy to check if the file you are trying to open really exists in the first place before performing any processing on it. Otherwise, the program is likely to raise a **runtime exception**.

PHP's built-in library provides some utility functions in this regard. Some of the functions we shall discuss in this chapter are –

- **file\_exists()** – tests if the file exists
- **is\_file()** – if the handle returned by the fopen() refers to a file or directory.
- **is\_readable()** – test if the file you have opened allows reading data
- **is\_writable()** – test if writing data in the file is allowed

## The file\_exists() Function

This function works with a file as well as a directory. It checks whether the given file or directory exists or not.

```
file_exists(string $filename): bool
```

The only parameter to this function is a string representing the file/directory with full path. The function returns true or false depending upon the file exists or not.

## Example

The following program checks if the file "hello.txt" exists or not.

```
<?php
$filename = 'hello.txt';
if (file_exists($filename)) {
    $message = "The file $filename exists";
} else {
    $message = "The file $filename does not exist";
}
echo $message;
?>
```

If the file does exist in the current directory, the message is –

The file hello.txt exists

If not, the message is –

The file hello.txt does not exist

## Example

The string pointing to the file may have a relative or absolute path. Assuming that "hello.txt" file is available in a "hello" subdirectory which is inside the current directory.

```
<?php
    $filename = 'hello/hello.txt';
    if (file_exists($filename)) {
        $message = "The file $filename exists";
    } else {
        $message = "The file $filename does not exist";
    }
    echo $message;
?>
```

It will produce the following **output** –

The file hello/hello.txt exists

## Example

Try giving the absolute path as below –

```
<?php
    $filename = 'c:/xampp/htdocs/hello.txt';
    if (file_exists($filename)) {
        $message = "The file $filename exists";
    } else {
        $message = "The file $filename does not exist";
    }
    echo $message;
?>
```

It will produce the following **output** –

The file c:/xampp/htdocs/hello.txt exists

## The is\_file() Function

The **file\_exists()** function returns **true** for existing file as well as directory. The **is\_file()** function helps you to determine if it's a file.

```
is_file ( string $filename ) : bool
```

The following example shows how the **is\_file()** function works –

```
<?php
    $filename = 'hello.txt';

    if (is_file($filename)) {
        $message = "$filename is a file";
    } else {
        $message = "$filename is a not a file";
    }
    echo $message;
?>
```

The **output** tells that it is a file –

hello.txt is a file

Now, change the "\$filename" to a directory, and see the result –

```
<?php
    $filename = hello;

    if (is_file($filename)) {
        $message = "$filename is a file";
    } else {
        $message = "$filename is a not a file";
    }
    echo $message;
?>
```

Now you will be told that "hello" is not a file.

Note that The **is\_file()** function accepts a **\$filename** and returns **true** only if the **\$filename** is a file and exists.

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## The is\_readable() Function

Sometimes, you may want to check before hand if the file can be read from or not. The **is\_readable()** function can ascertain this fact.

```
is_readable ( string $filename ) : bool
```

### Example

Given below is an example of how the **is\_readable()** function works –

```
<?php
    $filename = 'hello.txt';
    if (is_readable($filename)) {
        $message = "$filename is readable";
    } else {
        $message = "$filename is not readable";
    }
    echo $message;
?>
```

It will produce the following **output** –

```
hello.txt is readable
```

## The is\_writable() Function

You can use the **is\_writable()** function to can check if a file exists and if it is possible to perform write operation on the given file.

```
is_writable ( string $filename ) : bool
```

### Example

The following example shows how the **is\_writable()** function works –

```
<?php
    $filename = 'hello.txt';

    if (is_writable($filename)) {
        $message = "$filename is writable";
    } else {
        $message = "$filename is not writable";
    }
    echo $message;
?>
```

For a normal archived file, the program tells that it is writable. However, change its property to "read\_only" and run the program. You now get –

```
hello.txt is writable
```