Python Check If File Exists

Summary: in this tutorial, you'll learn how to check if a file exists.

When processing files, you'll often want to check if a file exists before doing something else with it such as reading from the file (https://www.pythontutorial.net/python-basics/python-read-text-file/) or writing to it (https://www.pythontutorial.net/python-basics/python-write-text-file/) .

To do it, you can use the `exists()` function from the `os.path` module or `is_file()` method from the `Path` class in the `pathlib` module.

os.path.exists() function

```
from os.path import exists

file_exists = exists(path_to_file)
```

Path.is_file() method

```
from pathlib import Path
```

```
path = Path(path_to_file)

path.is_file()
```

1) Using os.path.exists() function to check if a file exists

To check if a file exists, you pass the file path to the `exists()` function from the `os.path` standard library.

First, import the `os.path` standard library:

```
import os.path
```

Second, call the `exists()` function:

```
os.path.exists(path_to_file)
```

If the file exists, the `exists()` function returns `True`. Otherwise, it returns `False`.

If the file is in the same folder as the program, the `path_to_file` is just simply the file name.

However, it's not the case, you need to pass the full file path of the file. For example:

```
/path/to/filename
```

Even if you run the program on Windows, you should use the forward-slash (`/`) to separate the path. It'll work across Windows, macOS, and Linux.

The following example uses the `exists()` function to check if the `readme.txt` file exists in the same folder as the program:

```
import os.path

file_exists = os.path.exists('readme.txt')
```

```
print(file_exists)
```

If the `readme.txt` file exists, you'll see the following output:

```
True
```

Otherwise, you'll see `False` on the screen:

```
False
```

To make the call to the `exists()` function shorter and more obvious, you can import that function and rename it to `file_exists()` function like this:

```
from os.path import exists as file_exists

file_exists('readme.txt')
```

2) Using the pathlib module to check if a file exists

Python introduced the `pathlib` module since the version 3.4.

The `pathlib` module allows you to manipulate files and folders using the object-oriented approach. If you're not familiar with object-oriented programming, check out the Python OOP (https://www.pythontutorial.net/python-oop/) section.

First, import the `Path` class from the `pathlib` module:

```
from pathlib import Path
```

Then, instantiate a new instance of the `Path` class and initialize it with the file path that you want to check for existence:

```
path = Path(path_to_file)
```

Finally, check if the file exists using the `is_file()` method:

```
path.is_file()
```

If the file doesn't exist, the `is_file()` method returns `False`. Otherwise, it returns `True`.

The following example shows how to use the `Path` class from the `pathlib` module to check if the `readme.txt` file exists in the same folder of the program:

```
from pathlib import Path

path_to_file = 'readme.txt'
path = Path(path_to_file)

if path.is_file():
    print(f'The file {path_to_file} exists')
else:
    print(f'The file {path_to_file} does not exist')
```

If the `readme.txt` file exists, you'll see the following output:

```
The file readme.txt exists
```

Summary

- Use `os.path.exists()` function or `Path.is_file()` method to check if a file exists