

Python Create Text File

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Summary: in this tutorial, you'll learn how to create a new text file in Python using the `open()` function.

Using the `open()` function to create a new text file

To create a new text file, you use the `open()` function. The `open()` function has many parameters. However, we'll focus on the first two parameters:

```
f = open(path_to_file, mode)
```

In this syntax, the `path_to_file` parameter specifies the path to the text file that you want to create.

For creating a new text file, you use one of the following modes:

- `'w'` – open a file for writing. If the file doesn't exist, the `open()` function creates a new file. Otherwise, it'll overwrite the contents of the existing file.
- `'x'` – open a file for exclusive creation. If the file exists, the `open()` function raises an error (`FileExistsError`). Otherwise, it'll create the text file.

For example, the following creates a new file called `readme.txt` and write some text into it:

```
with open('readme.txt', 'w') as f:
    f.write('Create a new text file!')
```

This script creates a file with the name `readme.txt` in the same directory where the script file locates. If you want to create a file in a specified directory e.g., `docs/readme.txt`, you need to ensure that the `docs` directory exists before creating the file. Otherwise, you'll get an [exception](https://www.pythontutorial.net/python-oop/python-exceptions/) (<https://www.pythontutorial.net/python-oop/python-exceptions/>). For example:

```
with open('docs/readme.txt', 'w') as f:
    f.write('Create a new text file!')
```

Error:

```
FileNotFoundError: [Errno 2] No such file or directory: 'docs/readme.txt'
```

In this example, Python [raises an exception](https://www.pythontutorial.net/python-oop/python-raise-exception/) (<https://www.pythontutorial.net/python-oop/python-raise-exception/>) because the `docs` directory doesn't exist. Therefore, it could not create the `readme.txt` file in that directory. To fix the issue, you need to create the `docs` directory first and then create the `readme.txt` file in that folder.

Also, you can handle the exception using the try-except statement as follows:

```
try:
    with open('docs/readme.txt', 'w') as f:
        f.write('Create a new text file!')
except FileNotFoundError:
    print("The 'docs' directory does not exist")
```

Output:

```
The 'docs' directory does not exist
```

If you don't want to create a new text file in case it already exists, you can use the `'x'` mode when calling the `open()` function:

```
with open('readme.txt', 'x') as f:  
    f.write('Create a new text file!')
```

Summary

- Use the `open()` function with the `'w'` or `'x'` mode to create a new text file.