

# Working With Files and Directories

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2018

# Introduction to Files and Directories

- Our data is stored in different file formats within directories.
- Often, we need to create files in our programs to store our output data for later use.
- We can write program to modify data and store it back in a file.
- In this module, we will see how to work with files and folders in Python.
- Python's file operations are modeled after the *Unix System* and is available through the OS module.

# Common File Operations

We can create a file by simply using the open method. If the file specified doesn't already exist, it will be created.

```
import os
fout = open('my_file.txt', 'wt')
fout.close()
# Check if the file has been created with
# exists() function
os.path.exists('my_file.txt')
```

The above function will return `True` if the file exists.

# Common File Operations

We can check if the given path is a file or a directory by using the `isfile()` and `isdir()` methods.

```
name = 'my_file.txt'  
os.path.isfile(name)  
True
```

```
# to check if its a directory  
os.path.isdir(name)  
False
```

# Common File Operations

Some of the other commonly used file operations are:

```
# Get the current working directory
```

```
os.getcwd()
```

```
# Get all the files in the current workind direcc
```

```
os.listdir()
```

```
# Rename a file
```

```
os.rename('old_file_name', 'new_file_name')
```

# Summary

- We learned how to use Python's `os` module to perform different file and directory related operations.
- We learned how to use Python to interact with the operating system to accomplish system tasks.