Working with Zip Files

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1 Zip File

ZIP is an archive file format that supports lossless data compression. A ZIP file may contain one
or more files or directories that may have been compressed. The ZIP file format permits a number
of compression algorithms, though DEFLATE is the most common.

1.0.1 Advantages

The file contents are compressed and hence the size get reduced.

The format of data gets changed making it difficult to read by editors.

1.0.2 Import Zip Module

```python
[1]: from zipfile import *
```

1.0.3 Create a Zip file

```python
[2]: with ZipFile('compress.zip', mode='w', compression=ZIP_DEFLATED) as
     ↪zip_file_object:
         zip_file_object.write('books.csv')
```

1.0.4 Create a Zip file with compression

```python
[3]: with ZipFile('compress.zip', mode='w', compression=ZIP_DEFLATED,
     ↪compresslevel=9) as zip_file_object:
         zip_file_object.write('books.csv')
```

1.0.5 Create Zip file in a different location

```python
[10]: path = r'C:\Users\juelb\Desktop\compress.zip'

      with ZipFile(path, mode='w', compression=ZIP_DEFLATED, compresslevel=9) as
      ↪zip_file_object:
          zip_file_object.write('books.csv')
```

1.0.6 Create a Zip file from files in a different location

```
[12]: path = r'compress.zip'

      with ZipFile(path, mode='w', compression=ZIP_DEFLATED, compresslevel=9) as␣
       ↪zip_file_object:
          zip_file_object.write(r'C:\Users\juelb\Desktop\books.csv')
```

1.0.7 Create a Zip file in different location from files in a different location

```
[13]: path = r'C:\Users\juelb\Desktop\compress.zip'

      with ZipFile(path, mode='w', compression=ZIP_DEFLATED, compresslevel=9) as␣
       ↪zip_file_object:
          zip_file_object.write(r'C:\Users\juelb\Desktop\books.csv')
```

1.0.8 Create a Zip file with multiple files

```
[18]: with ZipFile('compress.zip', mode='w', compression=ZIP_DEFLATED,␣
       ↪compresslevel=9) as zip_file_object:
          zip_file_object.write('Data/books.csv')
          zip_file_object.write('Data/image.jpg')
```

```
[ ]: l = os.listdir('data')

     with ZipFile('compress.zip', mode='w', compression=ZIP_DEFLATED) as␣
      ↪zip_file_object:

         for i in l:
             zip_file_object.write(f'data\{i}')
```

1.0.9 View Files inside a Zip file

Method 1
```
[37]: with ZipFile('compress.zip', mode='r') as zip_file_object:
          out = zip_file_object.filelist

          print(out)
          for i in out:
              print(i.filename)
```

```
[<ZipInfo filename='Data/books.csv' compress_type=deflate filemode='-rw-rw-rw-'
file_size=1558968 compress_size=615528>, <ZipInfo filename='Data/image.jpg'
compress_type=deflate filemode='-rw-rw-rw-' file_size=3115809
compress_size=3113583>]
Data/books.csv
Data/image.jpg
```

Method 2

```
[38]: with ZipFile('compress.zip', mode='r') as zip_file_object:
          zip_file_object.printdir()
```

```
File Name                                         Modified             Size
Data/books.csv                           2022-12-09 11:31:12         1558968
Data/image.jpg                           2022-03-18 06:18:46         3115809
```

1.0.10   Extract single file from Zip file

```
[47]: with ZipFile('compress.zip', mode='r') as zip_file_object:
          zip_file_object.extract('Data/books.csv')
```

1.0.11   Extract all file from Zip file in current working directory

```
[48]: with ZipFile('compress.zip', mode='r') as zip_file_object:
          zip_file_object.extractall(path='new')
```

1.0.12   Extract all file from Zip file to a different directory

```
[ ]: with ZipFile('compress.zip', mode='r') as zip_file_object:
          zip_file_object.extractall(path='new')
```