os.listdir(*path='.'*)
Return a list containing the names of the entries in the directory given by path

Example:
 # write a program to list all the files exists in a directory

```
import os
def main():
    dname=input("enter directory/folder name")
    l=os.listdir(dname)
    for fname in l:
        print(fname)
    print(f'count of files : {len(l)}')
main()
```

Output:

```
enter directory/folder named:\\
$RECYCLE.BIN
.NET SYLLABUS
0D9EB100
14053500
157B0000
16 Online product quantization
16 Online product quantization.rar
22 ARTEMIS with code
….
count of files : 86
```

os.path.isfile(*path*)
Return True if *path* is an existing regular file.

 # write a program to find a given filename is regular file or directory file

```
import os.path
def main():
    fname=input("enter filename")
    if os.path.exists(fname):
        if os.path.isfile(fname):
            print("it is regular file")
```

```
        else:
            print("it is directory or folder")
    else:
        print("filename not found")

main()
```

Output:

```
enter filenamefile1
it is regular file
>>>
== RESTART: C:/Users/user/Desktop/python6pm/py200.py ==
enter filenameC:/Users/user/Desktop/python6pm
it is directory or folder
>>>
== RESTART: C:/Users/user/Desktop/python6pm/py200.py ==
enter filenamefile11
filename not found
>>>
```

os.path.isdir(*path*)
Return True if *path* is an existing directory.

os.path.exists(*path*)
Return True if *path* refers to an existing path or an open file descriptor.

 # write a program to find input file name exists or not

```
import os.path
def main():
    fname=input("enter filename")
    if os.path.exists(fname):
        print("file found")
    else:
        print("file not found")

main()
```

Output:

```
enter filenamefile1
file found
```

```
>>>
== RESTART: C:/Users/user/Desktop/python6pm/py199.py ==
enter filenamefile10
file not found
>>>
```

os.remove(*path)*
Remove (delete) the file *path*. If *path* is a directory, an IsADirectoryError is raised.

 # write a program to delete file

```
import os
import os.path
def main():
    fname=input("enter filename")
    if os.path.exists(fname):
        if os.path.isfile(fname):
            os.remove(fname)
            print("file deleted")
        else:
            print("it is folder")
    else:
        print("file not found")

main()
```

Output:

```
enter filenamenames.txt
file not found
>>>
== RESTART: C:/Users/user/Desktop/python6pm/py201.py ==
enter filenameC:/Users/user/Desktop/python6pm
it is folder
>>>
```

os.rmdir(*path*)
Remove (delete) the directory *path*. If the directory does not exist or is not empty, an FileNotFoundError or an OSError is raised respectively.

 # write a program to delete folder

```
import os.path
import os
def main():
    fname=input("enter folder name")
    if os.path.exists(fname):
        if os.path.isdir(fname):
            os.rmdir(fname)
            print("folder deleted")
        else:
            print("it is not folder")
    else:
        print("folder not found")

main()
```

Output:

```
== RESTART: C:/Users/user/Desktop/python6pm/py202.py ==
enter folder namefolder1
folder not found
>>>
== RESTART: C:/Users/user/Desktop/python6pm/py202.py ==
enter folder namefile1.ser
it is not folder
>>>
```

Example:

```
# write a program to count how many
# regular files and directory files exists inside one directory
import os
import os.path
def main():
    fname=input("enter folder name")
    if os.path.exists(fname):
        if os.path.isdir(fname):
            l=os.listdir(fname)
            os.chdir(fname)
```

```
            fc,dc=0,0
            for fn in l:
                if os.path.isfile(fn):
                    fc+=1
                else:
                    dc+=1
            print(f'File count {fc}')
            print(f'Directory count {dc}')
        else:
            print("not directory or folder")
    else:
        print("directory or folder not exists")

main()
```

Output:

```
enter folder name.
File count 285
Directory count 1
>>>
== RESTART: C:/Users/user/Desktop/python6pm/py203.py ==
enter folder named:\\
File count 53
Directory count 33
>>>
```

datetime module

it is a predefined module which comes with python software
this module is used to work with date and time
The datetime module supplies classes for manipulating dates and times.
While date and time arithmetic is supported, the focus of the implementation is on efficient attribute extraction for output formatting and manipulation.
The following classes provided by this module

1. date class
2. time class
3. datetime class

4. timedelta class
5. tzinfo class

date and time classes are immutable data types.

date class or date data type

A date object represents a date (year, month and day)
class datetime.date(*year*, *month*, *day*)
All arguments are required. Arguments must be integers, in the following ranges:

MINYEAR <= year <= MAXYEAR
1 <= month <= 12
1 <= day <= number of days in the given month and year
If an argument outside those ranges is given, ValueError is raised.

***classmethod* date.today()**

Return the current local date.

```
>>> import datetime
>>> datetime.date.today()
datetime.date(2022, 1, 7)
>>> d=datetime.date.today()
>>> print(d)
2022-01-07
>>> d.year
2022
>>> d.month
1
>>> d.day
7
>>>
```