Vidyavardhini's College of Engineering and Technology

Department of Artificial Intelligence & Data Science

AY: 2024-25

Class:	**SE**	**Semester:**	**IV**
Course Code:	**CSL405**	**Course Name:**	**Skills Based Python Programming Lab**

Name of Student:	**Shravani Sandeep Raut**
Roll No. :	**48**
Experiment No.:	**4**
Title of the Experiment:	**To implement a Python program to display files available in the current directory.**
Date of Performance:	**04/02/2025**
Date of Submission:	**11/02/2025**

Evaluation

Performance Indicator	Max. Marks	Marks Obtained
Performance	5	
Understanding	5	
Journal work and timely submission	10	
Total	20	

Performance Indicator	Exceed Expectations (EE)	Meet Expectations (ME)	Below Expectations (BE)
Performance	4-5	2-3	1
Understanding	4-5	2-3	1
Journal work and timely submission	8-10	5-8	1-4

Checked by

Name of Faculty : Mr. Raunak Joshi

Signature :

Date:

Aim: To implement a Python program to display files available in the current directory.

Theory:

Introduction to File Handling in Python : Python provides several modules to interact with the operating system's file system. The most commonly used module for this purpose is the os module, which allows for directory navigation, file manipulation, and system-level operations.

Using the os Module : The os module in Python offers functionalities to interact with the operating system. It can be used to

1. Get the current working directory.
2. List files and directories.
3. Navigate between directories.

Listing Files in the Current Directory : To display all files available in the current directory, the os.listdir() function is typically used. This function returns a list of names of the entries in the directory given by the path. If no path is specified, it lists the contents of the current directory.

Filtering Files from Directories : Since os.listdir() returns both files and directories, we need to filter out only the files. This can be achieved using os.path.isfile().

Implementation:

```
import os
files = [f for f in os.listdir('.') if os.path.isfile(f)]
print("Files in the current directory:")
for file in files:
    print(file)
```

```
Files in the current directory:
Experiment04.ipynb
Experiment04.pdf
```

In [ ]:

```
from pathlib import Path
file = Path('.')
files_in_directory = [f for f in file.iterdir() if f.is_file()]
print("Files in the current directory:")
for file in files_in_directory:
    print(file.name)
```

```
Files in the current directory:
Experiment04.ipynb
Experiment04.pdf
```

Conclusion:

Python's os module provides essential tools to interact with the file system, making it easy to navigate directories and manage files. To list files in the current directory, os.listdir() is used, which returns both files and folders. By combining it with os.path.isfile(), we can effectively filter and display only the files. This capability is useful for building file management utilities, organizing content, or performing batch operations on files. Understanding these basic file system interactions equips programmers to handle real-world scenarios involving directory structures and file processing with greater efficiency and control.