Practical 4

Q : Write a Python program to list only directories, files and all directories, files in a specified path.

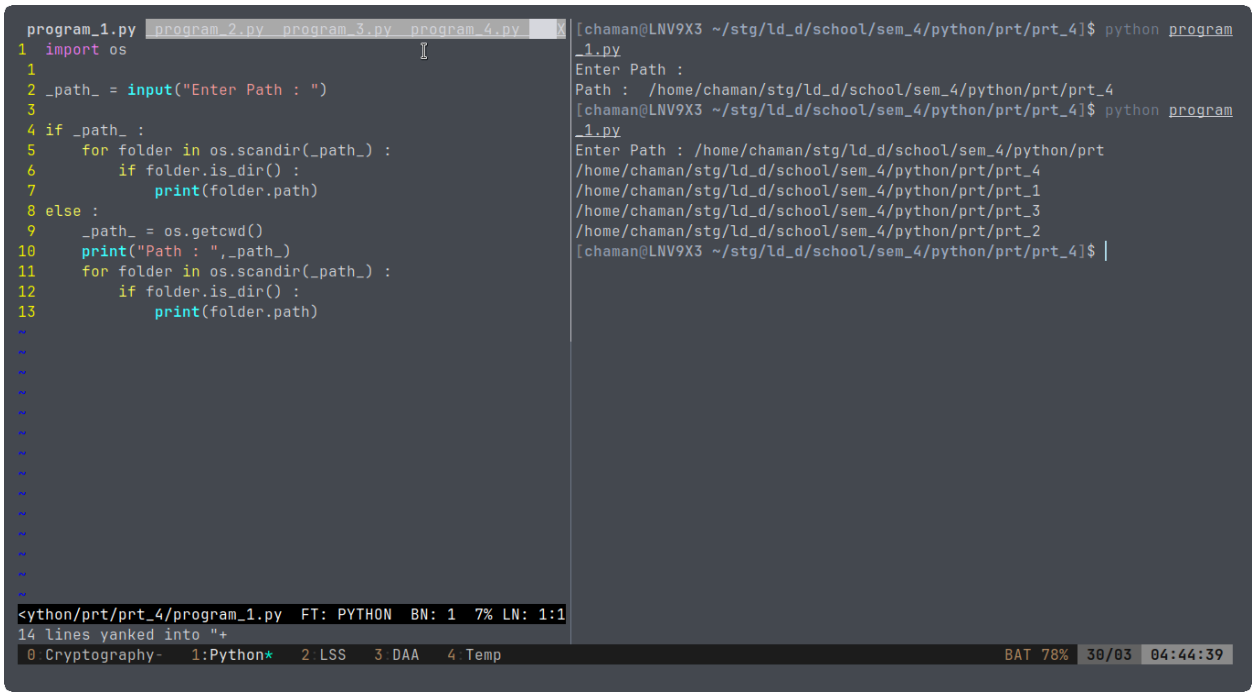
Sol :

```
import os

_path_ = input("Enter Path : ")

if _path_ :
    for folder in os.scandir(_path_) :
        if folder.is_dir() :
            print(folder.path)
else :
    _path_ = os.getcwd()
    print("Path : ",_path_)
    for folder in os.scandir(_path_) :
        if folder.is_dir() :
            print(folder.path)
```

Output :



Q : Write a Python program to scan a specified directory and identify the subdirectories and files.

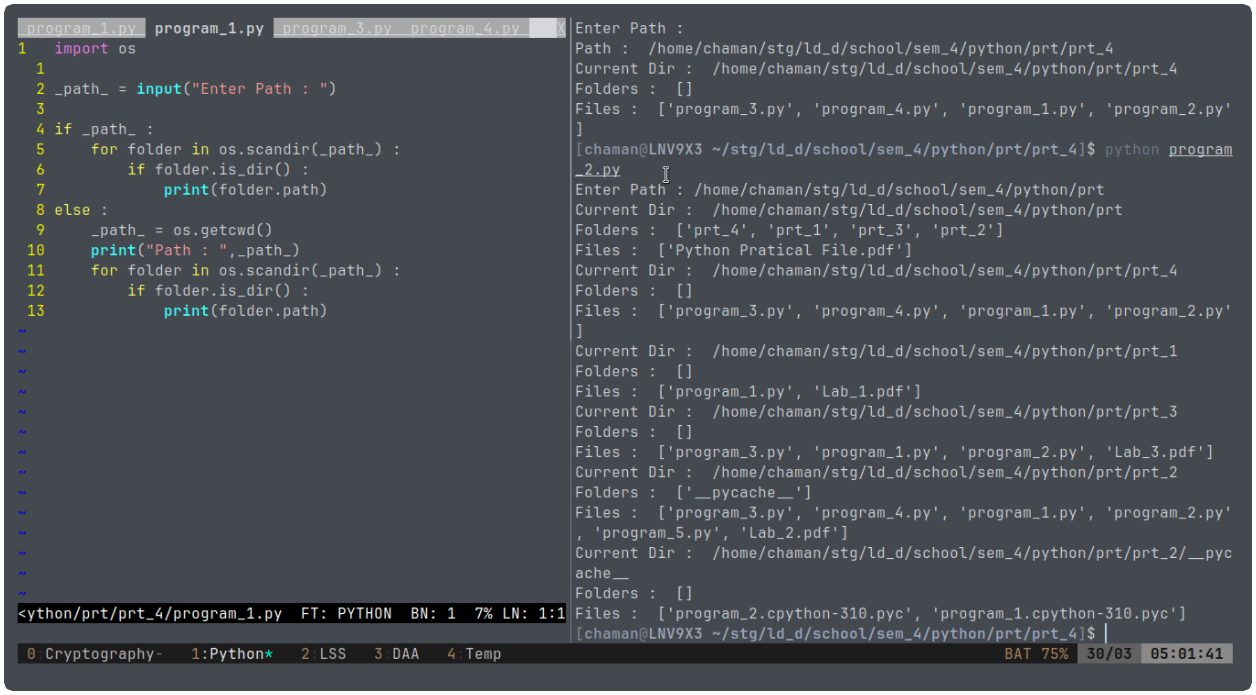
Sol :

import os

```
_path_ = input("Enter Path : ")

if _path_ :
    for curr,folder,file in os.walk(_path_) :
        print("Current Dir : ",curr)
        print("Folders : ",folder)
        print("Files : ",file)
else :
    _path_ = os.getcwd()
    print("Path : ",_path_)
    for curr,folder,file in os.walk(_path_) :
        print("Current Dir : ",curr)
        print("Folders : ",folder)
        print("Files : ",file)
```

Output :



Q : Write a Python program to get the size, permissions, owner, device, created, last modified and last accessed date and time of a specified path.
Sol :

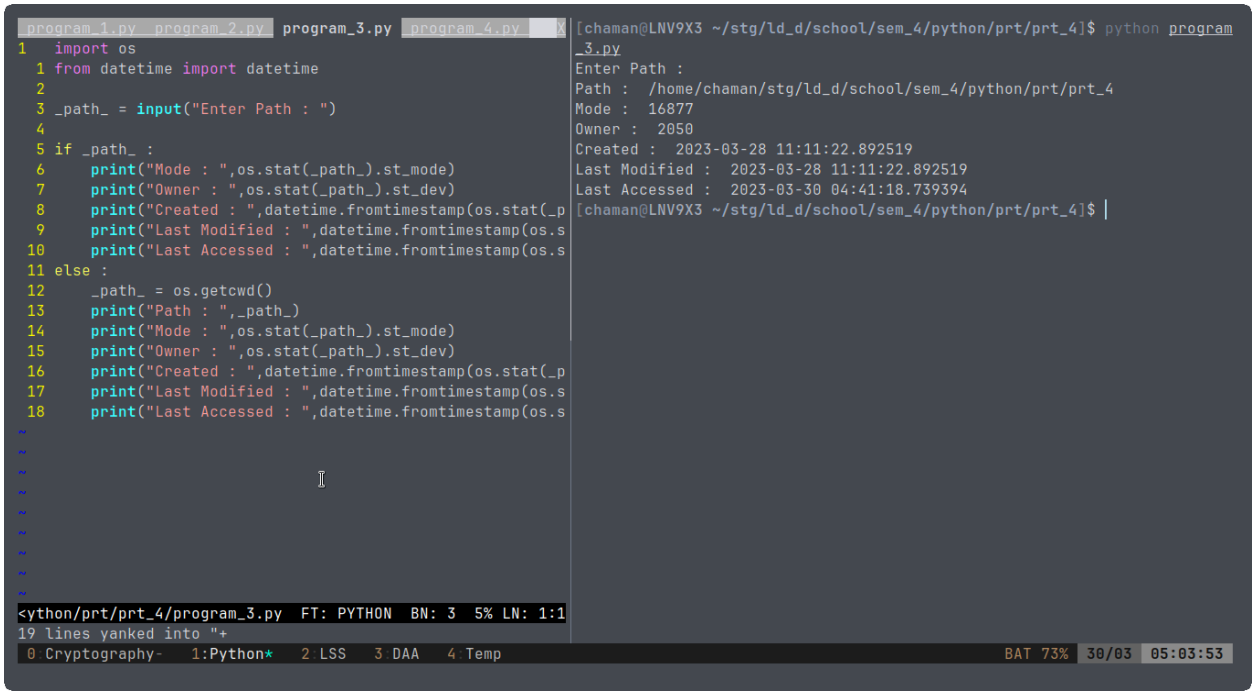
```
import os
from datetime import datetime

_path_ = input("Enter Path : ")

if _path_ :
    print("Mode : ",os.stat(_path_).st_mode)
    print("Owner : ",os.stat(_path_).st_dev)
```

```
    print("Created : ",datetime.fromtimestamp(os.stat(_path_).st_ctime))
    print("Last Modified : ",datetime.fromtimestamp(os.stat(_path_).st_mtime))
    print("Last Accessed : ",datetime.fromtimestamp(os.stat(_path_).st_atime))
else :
    _path_ = os.getcwd()
    print("Path : ",_path_)
    print("Mode : ",os.stat(_path_).st_mode)
    print("Owner : ",os.stat(_path_).st_dev)
    print("Created : ",datetime.fromtimestamp(os.stat(_path_).st_ctime))
    print("Last Modified : ",datetime.fromtimestamp(os.stat(_path_).st_mtime))
    print("Last Accessed : ",datetime.fromtimestamp(os.stat(_path_).st_atime))
```

Output :



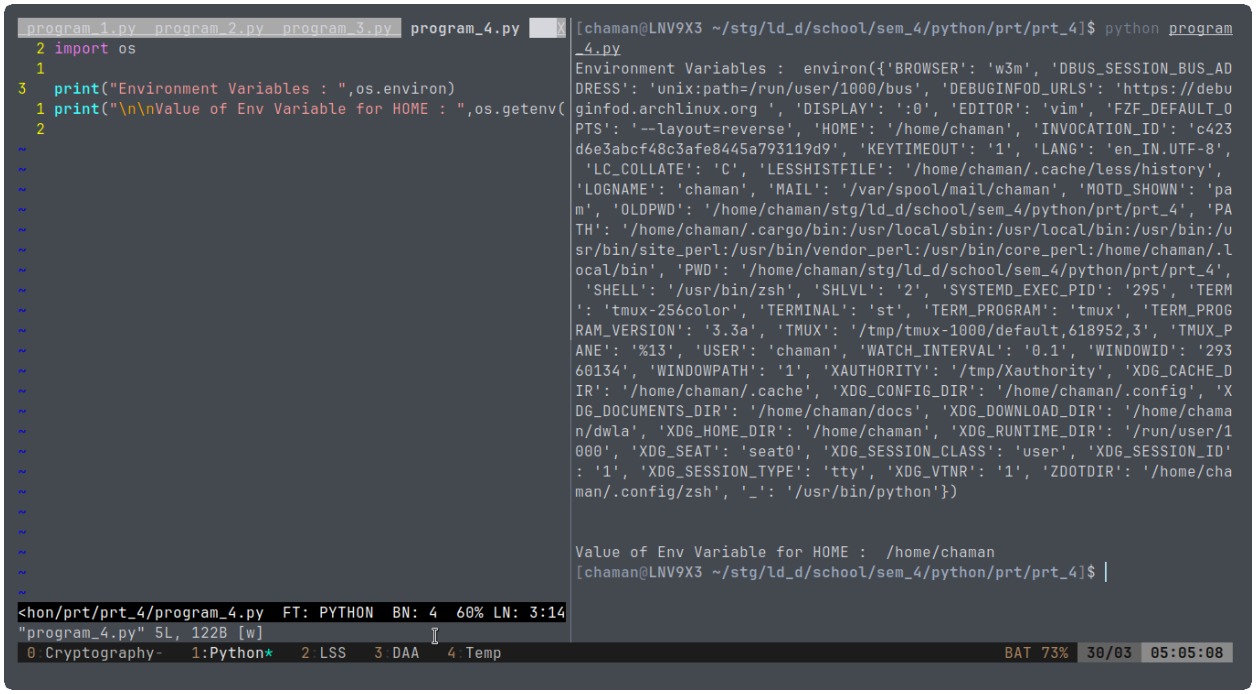
Q : Write a Python program to access environment variables and the value of the environment variable.

Sol :

```
import os

print("Environment Variables : ",os.environ)
print("\n\nValue of Env Variable for HOME : ",os.getenv('HOME'))
```

Output :


program_1.py program_2.py program_3.py program_4.py
2 import os
1
3 print("Environment Variables : ",os.environ)
1 print("\n\nValue of Env Variable for HOME : ",os.getenv(
2
<hon/prt/prt_4/program_4.py FT: PYTHON BN: 4 60% LN: 3:14
"program_4.py" 5L, 122B [w]
[chaman@LNV9X3 ~/stg/ld_d/school/sem_4/python/prt/prt_4]$ python program_4.py
Environment Variables : environ({'BROWSER': 'w3m', 'DBUS_SESSION_BUS_ADDRESS': 'unix:path=/run/user/1000/bus', 'DEBUGINFOD_URLS': 'https://debuginfod.archlinux.org ', 'DISPLAY': ':0', 'EDITOR': 'vim', 'FZF_DEFAULT_OPTS': '--layout=reverse', 'HOME': '/home/chaman', 'INVOCATION_ID': 'c423d6e3abcf48c3afe8445a793119d9', 'KEYTIMEOUT': '1', 'LANG': 'en_IN.UTF-8', 'LC_COLLATE': 'C', 'LESSHISTFILE': '/home/chaman/.cache/less/history', 'LOGNAME': 'chaman', 'MAIL': '/var/spool/mail/chaman', 'MOTD_SHOWN': 'pam', 'OLDPWD': '/home/chaman/stg/ld_d/school/sem_4/python/prt/prt_4', 'PATH': '/home/chaman/.cargo/bin:/usr/local/sbin:/usr/local/bin:/usr/bin:/usr/bin/site_perl:/usr/bin/vendor_perl:/usr/bin/core_perl:/home/chaman/.local/bin', 'PWD': '/home/chaman/stg/ld_d/school/sem_4/python/prt/prt_4', 'SHELL': '/usr/bin/zsh', 'SHLVL': '2', 'SYSTEMD_EXEC_PID': '295', 'TERM': 'tmux-256color', 'TERMINAL': 'st', 'TERM_PROGRAM': 'tmux', 'TERM_PROGRAM_VERSION': '3.3a', 'TMUX': '/tmp/tmux-1000/default,618952,3', 'TMUX_PANE': '%13', 'USER': 'chaman', 'WATCH_INTERVAL': '0.1', 'WINDOWID': '29360134', 'WINDOWPATH': '1', 'XAUTHORITY': '/tmp/Xauthority', 'XDG_CACHE_DIR': '/home/chaman/.cache', 'XDG_CONFIG_DIR': '/home/chaman/.config', 'XDG_DOCUMENTS_DIR': '/home/chaman/docs', 'XDG_DOWNLOAD_DIR': '/home/chaman/dwla', 'XDG_HOME_DIR': '/home/chaman', 'XDG_RUNTIME_DIR': '/run/user/1000', 'XDG_SEAT': 'seat0', 'XDG_SESSION_CLASS': 'user', 'XDG_SESSION_ID': '1', 'XDG_SESSION_TYPE': 'tty', 'XDG_VTNR': '1', 'ZDOTDIR': '/home/chaman/.config/zsh', '_': '/usr/bin/python'})
Value of Env Variable for HOME : /home/chaman
[chaman@LNV9X3 ~/stg/ld_d/school/sem_4/python/prt/prt_4]$
0:Cryptography- 1:Python* 2:LSS 3:DAA 4:Temp
BAT 73% 30/03 05:05:08