**10.5** Write a shell script that will take a filename as input andcheck if it is executable. 2. Modify the script in the previous question, to remove the execute permissions, if the file is executable.

**Objectives:**

1. To learn about python as scripting option.

**Theory:**

**Executable File:**

An executable file is a file that is used to perform various functions or operations on a computer. Unlike a data file, an executable file cannot be read because it has been compiled. On an IBM compatible computer, common executable files are .BAT, .COM, .EXE, and .BIN. On an Apple mac computer running macOS the .DMG and .APP files are executable files. Depending on the operating system and its setup, there can also be other executable files.

**access():**

**Description:**

The method access() uses the real uid/gid to test for access to path. Most operations will use the effective uid/gid, therefore this routine can be used in a suid/sgid environment to test if the invoking user has the specified access to path.It returns True if access is allowed, False if not.

**Syntax:**

Following is the syntax for access() method −

os.access(path, mode);

**Parameters:**

* path − This is the path which would be tested for existence or any access.
* mode − This should be F\_OK to test the existence of path, or it can be the inclusive OR of one or more of R\_OK, W\_OK, and X\_OK to test permissions.
  + os.F\_OK − Value to pass as the mode parameter of access() to test the existence of path.
  + os.R\_OK − Value to include in the mode parameter of access() to test the readability of path.
  + os.W\_OK Value to include in the mode parameter of access() to test the writability of path.
  + os.X\_OK Value to include in the mode parameter of access() to determine if path can be executed.

**Return Value:**

This method returns True if access is allowed, False if not.

**Program:**

import os

print "Enter file name:";

f = raw\_input();

if os.access(f,os.X\_OK):

print "Executable......changing mode";

os.chmod(f,666)

if os.access(f,os.X\_OK):

print "Mode Change error";

else:

print "Mode changed to non executable";

else:

print "Not Executable";

**Output:**

sarita@HP-Laptop-15g-dr0xxx:~$ /Sarita/UOS assignments/Assignment No. 10$ python 10e.pyEnter file name:

10h.docx

Executable......changing mode

Mode changed to non executable

**Conclusion:**

1.Various system calls can invoked using OS library of python to check permissions on files and modify them.

**References:**

[1] https://docs.python.org/3