Papers Dock

PYTHON

9618

FILES

Purpose Of File

To Store Data Permenantly

Three Modes In Files

READ MODE

Read mode is used when you only want to read data from existing file

WRITE MODE

Write mode is used when you want to write data to a new file

APPEND MODE

Append mode is used when you want to write data to an existing file

READING FROM A FILE

STEP 1 : OPEN the file in read mode by using open() function

```
file =  open( "FileName", "r" )
```

r stands for read mode

STEP 2 : Reading the content of the complete file by using read() function

```
text = file.read()
```

STEP 2 : Close the file

```
file.close()
```

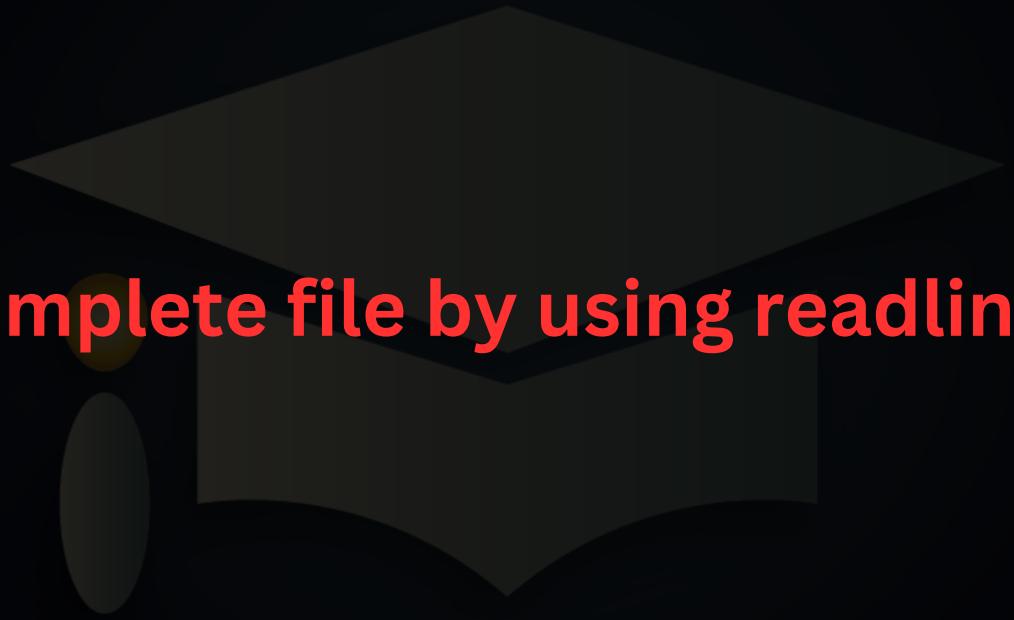
```
file = open("HighScore.txt", "r")
text = file.read()
print(text)
```

readline() function

In Python, the readline() function is used to read a single line of text from a file. This function is commonly used in situations where you want to read a file line by line, rather than reading the entire file at once.

```
file = open("HighScore.txt", "r")
firstline = file.readline()
secondline = file.readline()
print(firstline)
print(secondline)
file.close()
```

Practice Question



Print the complete file by using readline() function

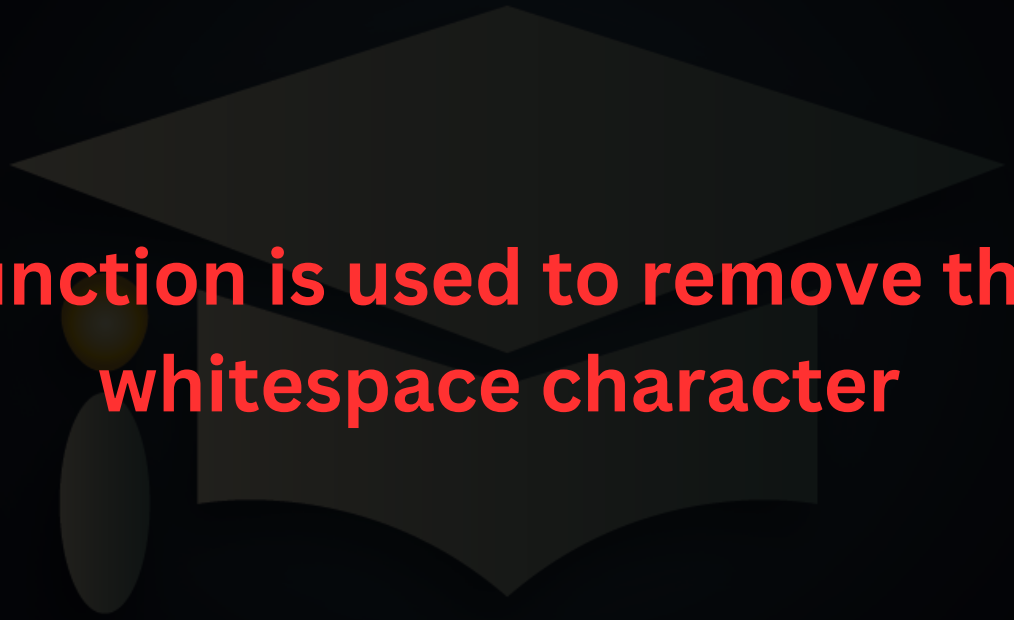
```
file = open("HighScore.txt", "r")
for x in range(20):
    text = file.readline()
    print(text)
file.close()
```

Question

Find the Sum of Scores of all the Players

```
Sum = 0
file = open("HighScore.txt", "r")
for x in range(10):
    text = file.readline()
    score = file.readline()
    Sum = Sum + int(score)
file.close()
print(Sum)
```

strip() function

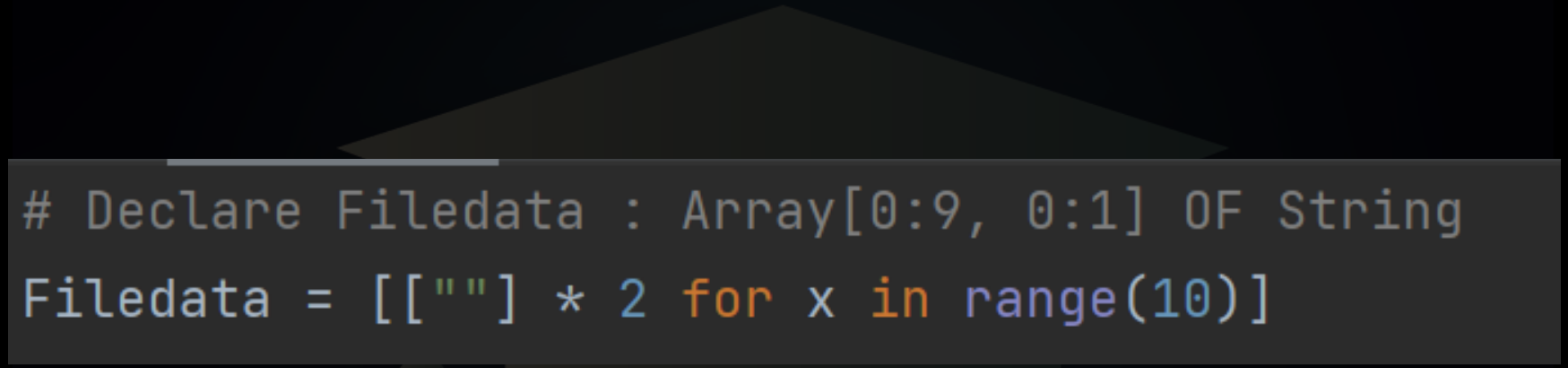


strip function is used to remove the extra whitespace character

Practice Question

Create an array with 10 elements in which you will store all the Player names and Scores from the HighScore.txt file

Array Name = Filedata


# Declare Filedata : Array[0:9, 0:1] OF String
Filedata = [[""] * 2 for x in range(10)]

Practice Question

Open the file HighScore.txt and store all the Player name with their score in the 2D array

```
# Declare Filedata : Array[0:9, 0:1] OF String
Filedata = [[""] * 2 for x in range(10)]

file = open("HighScore.txt", "r")
for x in range(10):
    Filedata[x][0] = file.readline().strip()
    Filedata[x][1] = file.readline().strip()

print(Filedata)
```

(c) The procedure `OutputHighScores()` outputs all the values in the data structure(s) in the format:

```
PlayerName Score
```

For example, the first two data items:

```
FYI 10000
ABC 9092
```

Write program code to declare the procedure `OutputHighScores()`.

```
file.close()
def OutputProcedure():
    for x in range(10):
        combine = Filedata[x][0] + " " + Filedata[x][1]
        print(combine)

OutputProcedure()
```

Writing A New File

STEP 1 : OPEN the file in write mode by using open() function

```
file =  open( "FileName.txt", "w" )
```

w stands for write mode

STEP 2 : Writing a text line by using .write("...")

```
file.write("Taha")
```

STEP 2 : Close the file

```
file.close()
```

```python
file = open("NewFile.txt", "w")
file.write("Taha")
file.close()

file = open("NewFile.txt", "r")
text = file.read()
print(text)
```

Practice Question

Create a new file with the name "EventGuest.txt"
and input from the user the name of the guests they want to invite in the event and when they type "No" stop taking input and store all the names in the file and each name should be on a new line so for that concatenate the "\n" with the name

```python
file = open("EventGuest.txt", "w")

flag = True
while flag == True:
    name = input("Enter the name you want to invite in the Event : ")
    if name == "NO":
        flag = False
    else:
        file.write(name + "\n")

file.close()
```

Writing In An Existing File

STEP 1 : OPEN the file in append mode by using open() function

```
file =  open( "FileName.txt", "a" )
```

a stands for ~~write~~ Append mode

STEP 2 : Writing a text line by using .write("...")

```
file.write("Taha")
```

STEP 2 : Close the file

```
file.close()
```

```
file = open("BestStudents.txt", "w")
file.write("Bano\n")
file.write("Shumaila\n")
file.close()

file = open("BestStudents.txt", "r")
print(file.read())
```

Practice Question

Append "Bano" in the file "EventGuest.txt"

Dont Forget About The NewLIne Character


file = open("EventGuest.txt", "a")
file.write("Bano\n")

What If You Don't Know The Number Of Lines While Reading

```
file = open ("Filename.txt", "r")

for line in file:
    print(line.strip())
```

The data of line will be automatically stored in line variable

Practice Question

Append "Papersdock" in the file "EventGuest.txt" but first check if that name is in the list or not. If its in the list then print already invited and if not then add it to the file

Dont Forget About The NewLIne Character

```
file = open("EventGuest.txt", "r")
flag = False
for line in file:
    if line.strip() == "Papersdock":
        flag = True
        print("Already Invited")

file = open("EventGuest.txt", "a")
if flag == False:
    file.write("Papersdock\n")
```