file_IO_processing

June 14, 2021

1 File I/O Processing and Regular Expressions

[9]:
```
# You can read data from a user using the input() function. Received data by␣
↪default is in text format.
```

[3]:
```
Name = input ("Enter your name: ")
Name
```

```
Enter your name: Robert Kigobe
```

[3]:
```
'Robert Kigobe'
```

[4]:
```
Mark = input("Enter your mark: ")
Mark = float(Mark)
Mark
```

```
Enter your mark: 45
```

[4]:
```
45.0
```

[8]:
```
print ("Welcome to Grading System \nHCT 2018")
print ("\nCampus\t Name\t\tMark\tGrade")
if (Mark>=80):
    Grade="B+"
    print ("FMC\t", Name,"\t",Mark,"\t", Grade)
```

```
Welcome to Grading System
HCT 2018

Campus    Name            Mark    Grade
```

1.1 Opening and Closing Files

[10]:
```
# Python's built-in open() function is used to open a file stored on a computer␣
↪hard disk or in the cloud. Here's its syntax:
# file object = open(file_name [, access_mode][, buffering])
```

1.1.1 Opening

[13]:
```
Filehndl = open("egypt.txt", "r")
print ("Name of the file: ", Filehndl.name)
print ("Closed or not : ", Filehndl.closed)
print ("Opening mode : ", Filehndl.mode)
```

```
Name of the file:  egypt.txt
Closed or not :  False
Opening mode :  r
```

1.1.2 Closinging

[15]:
```
Filehndl = open("egypt.txt", "r")
print ("Closed or not : ", Filehndl.closed)
Filehndl.close()
print ("Closed or not : ", Filehndl.closed)
```

```
Closed or not :  False
Closed or not :  True
```

1.2 Reading and Writing to Files

[14]:
```
# The file.write() method is used to write to a file as shown in below figure,␣
 ↪and the file.read() method is used to read data from an opened file. A file␣
 ↪can be opened for writing (W), reading (r), or both (r+),
```

[16]:
```
Filehndl = open("Egypt.txt", "w+") #allows you to open and write to a file
Filehndl.write( "Python Processing Files\nMay 2021!!\n")
# Close opend file
Filehndl.close()
```

[18]:
```
fileHandler2 = open("south_africa.txt", "r")
for line in fileHandler2:
    List = line.split()
    print(List)
```

```
['Eastern', 'Cape', 'Bhisho', 'Port', 'Elizabeth', '168,966', '6,996,976']
['Free', 'State', 'Bloemfontein', 'Bloemfontein', '129,825', '2,834,714']
['Gauteng', 'Johannesburg', 'Johannesburg', '18,178', '13,399,724']
['KwaZulu-Natal', 'Pietermaritzburg', 'Durban', '94,361', '11,065,240']
['Limpopo', 'Polokwane', 'Polokwane', '125,754', '5,799,090']
['Mpumalanga', 'Mbombela', 'Mbombela', '76,495', '4,335,964']
['North', 'West', 'Mahikeng', 'Klerksdorp', '104,882', '3,748,435']
['Northern', 'Cape', 'Kimberley', 'Kimberley', '372,889', '1,193,780']
['Western', 'Cape', 'Cape', 'Town', 'Cape', 'Town', '129,462', '6,279,730']
```

[17]:
```
import os
os.rename( "Egypt.txt", "sudan.txt" )
```

```
os.remove( "sudan.txt" )
```

1.3 Directories in Python

[22]:
```
import os
os.mkdir("Data 4") # create a directory
os.mkdir("Data_5")
os.getcwd()             # Get the current working directory
os.rmdir('Data 1') # remove a directory
```

[23]:
```
os.getcwd()
```

[23]:
```
'/Users/robertkigobe/Documents/My_Research/My_Python/Data_Analysis_Visualization
s'
```

[ ]:
```

```