Python_p_[File Reading and Writing]_[Day 22]_(DATA MINDS)

September 20, 2023

TOPIC - FILE READING AND WRITING

[2]:
```
# WE CALL THIS DATA AS " JSON - JAVA SCRIPT OBJECT NOTATION"
# WHERE OUR DATA AVAILABLE IN KEY VALUE PAIRS

Information={
    "Name":"Virat Tiwari",
    "Mail":"Virat@gmail.com",
    "Mob no : ":8974264125912,
    "Course":["Python","Machine Learning","NLP"],
    "Teacher":"Shudanshu",
}
```

01) IMPORTANT NOTE - :

JSON - " JavaScript Object Notation "

IN JSON FILE WE US EXTENTION - .JSON

Now we understand how we write the data in JSON file

1) First we " import json " module for making such kind of file or putting data inside the file like a dictionary type

2) with open( ) - By using this function we open the file inside the json that we already written , in this finction we pass two(2) arguments one is file name and second is "w" - that use for write the file

3) json.dump ( ) - By using this function we can dump or append the data that we written inside the file or it will created the final json file

4) "f" - f is nothing but a variable or a object where actual data store

[3]:
```
import json
```

[4]:
```
with open("Information.json","w") as f:
    json.dump(Information,f)
```

NOTE - :

1) with open ( ) - This function is used for the read the file and in this function we pass two arguments inside the function , first is file name and second is "r" - that use for the reading the file

or data that we written

2) json.laod ( ) - This function is used for laoding the data inside the file and we pass only one argument inside this function that is variable or object name that we already initialise

[5]:
```
with open("Information.json","r") as f:
    Details=json.load(f)
```

[6]:
```
Details
```

[6]:
```
{'Name': 'Virat Tiwari',
 'Mail': 'Virat@gmail.com',
 'Mob no : ': 8974264125912,
 'Course': ['Python', 'Machine Learning', 'NLP'],
 'Teacher': 'Shudanshu'}
```

[7]:
```
Details["Course"][1]
```

[7]:
```
'Machine Learning'
```

02) CSV (“COMMA SEPERATED VALUES”) - :

IT STORE THE DATA IN STRUCTURED OR TABULAR FORMAT , WHER DATA PRESENT IN ROWS AND COLUMNS IN PROPER MANNER

NOTE - THE DATA THAT WE STORE IN CSV IS STRUCTURED DATA OR TABULAR FORMAT OF DATA

NOTE- FIRST WE “IMPORT CSV” MODULE FOR STORING DATA IN FILE IN STARUCTURED MANNER

IN CSV FILE WE US EXTENTION - .CSV

[8]:
```
import csv
```

[9]:
```
Data=[["Name","Email","Mobile no"],
      ["Virat Tiwari","Virat@gmail.com",87456],
      ["Yash Verma","Yash@gmail.com",97456]
]
```

[10]:
```
with open("Data.csv","w") as f:
    writer=csv.writer(f)

    for i in Data:
        writer.writerow(i)
```

[11]:
```
with open("Data.csv","r") as f:
    read_Data=csv.reader(f)

    for i in read_Data:
```

```
        print(i)
```

```
['Name', 'Email', 'Mobile no']
['Virat Tiwari', 'Virat@gmail.com', '87456']
['Yash Verma', 'Yash@gmail.com', '97456']
```

03) IMPORTANT NOTE : -

BINARY DATA - THIS COVERTS EVERY FILE IN TO 0 AND 1 THAT BASICALLY STORE IN HEXADECIMAL IN A SYSTEM OR COMPUTER

WE CAN NOT DIRECTLY READ BINARY DATA BECOUSE IT OBIOUSLY PRESENT IN BINARY FORM WHICH IS 0 AND 1 UNTILL AND UNLESS WE CAN NOT CONVERT THAT DATA INTO IMAGE , VIDEO AND OTHER FORMAT

IN BINARY FILE WE US EXTENTION - .BIN

[20]:
```
with open("test.bin","wb") as f:
    f.write(b"\x01\x02\x03\x04\x05\Virat Tiwari (Aspiring Data Scientist)")
```

[21]:
```
with open("test.bin","rb") as f:
    print(f.read())
```

```
b'\x01\x02\x03\x04\x05\\Virat Tiwari (Aspiring Data Scientist)'
```

Thank You So Much !

Yours Virat Tiwari :)