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app.py - D:\File-DataStore\app.py (3.8.5)
File Edit Format Run Options Window Help
import time
import threading
from threading import Thread

data = {} #dictionary to store the data

#Create Operation
def create(key,value,timeout=0):
    if key in data:
        print("error: this key already exists") #error message1
    else:
        if (key.isalpha()):
            if len(data)<(1024*1024*1024) and value<=(16*1024*1024): #constraints for file size less than 1GB and JsonObject value less than 16KB
                if timeout==0:
                    l=[value,timeout]
                else:
                    l=[value,time.time()+timeout]
                if len(key)<=32: #constraints for input key_name capped at 32chars
                    data[key]=l
            else:
                print("error: Memory limit exceeded!! ")#error message2
        else:
            print("error: Invalid key_name!! key_name must contain only alphabets and no special characters or numbers")#error message3

#Read Operation
def read(key):
    if key not in data:
        print("error: given key does not exist in database. Please enter a valid key") #error message4
    else:
        read =data[key]
        if read[1]!=0:
            if time.time()-read[1]>read[0]: #comparing the present time with expiry time
                stri=str(key)+":"+str(read[0]) #to return the value in the format of JsonObject i.e., "key_name:value"
                return stri
            else:
                print("error: time-to-live of",key,"has expired") #error message5
        else:
            stri=str(key)+":"+str(read[0])
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Python 3.8.5 Shell
File Edit Shell Debug Options Window Help
Python 3.8.5 (tags/v3.8.5:580fbb0, Jul 20 2020, 15:57:54) [MSC v.1924 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\File-DataStore\app.py =====
>>> import app as result
>>> result.create("Rohan", 142)
>>> result.read("Rohan")
'Rohan:142'
>>> result.create("Rohan", 42)
error: this key already exists
>>> result.read("Roha")
error: given key does not exist in database. Please enter a valid key
>>> result.delete("Rohan")
key is successfully deleted
>>> result.delete("Rohan")
error: given key does not exist in database. Please enter a valid key
>>> result.read("Rohan")
error: given key does not exist in database. Please enter a valid key
>>> result.create("Rohan123", 54)
Traceback (most recent call last):
  File "<pyshell#8>", line 1, in <module>
    result("Rohan123", 54)
TypeError: 'module' object is not callable
>>> result.create("Rohan123", 54)
error: Invalid key_name!! key_name must contain only alphabets and no special characters or numbers
>>>
```