def create(key,value,timeout=0):

if key in d:

print("error: this key already exists") #error message1

else:

if(key.isalpha()):

if len(d)<(1024\*1020\*1024) and value<=(16\*1024\*1024): #constraints for file size less than 1GB and Jasonobject 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

d[key]=l

else:

print("error: Memory limit exceeded!! ")#error message2

else:

print("error: Invalind key\_name!! key\_name must contain only alphabets and no special characters or numbers")#error message3

#for read operation

#use syntax "read(key\_name)"

def read(key):

if key not in d:

print("error: given key does not exist in database. Please enter a valid key") #error message4

else:

b=d[key]

if b[1]!=0:

if time.time()<b[1]: #comparing the present time with expiry time

stri=str(key)+":"+str(b[0]) #to return the value in the format of JasonObject i.e.,"key\_name:value"

return stri

else:

print("error: time-to-live of",key,"has expired") #error message5

else:

stri=str(key)+":"+str(b[0])

return stri

#for delete operation

#use syntax "delete(key\_name)"

def delete(key):

if key not in d:

print("error: given key does not exist in database. Please enter a valid key") #error message4

else:

b=d[key]

if b[1]!=0:

if time.time()<b[1]: #comparing the current time with expiry time

del d[key]

print("key is successfully deleted")

else:

print("error: time-to-live of",key,"has expired") #error message5

else:

del d[key]

print("key is successfully deleted")