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In [ ]: 1.what is multithreading in python ?why is it used ?name the module used to handle
->multithreading refers to concurrently executing multiple threads by rapidly switch
of the cpu between threads .it allows concurrent and parallel occurrence of vario
it is uses because it causes a reduction in time consumption or response time the
the performance
threading module
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In [ ]: 2.why threading module is used ?
->threading module provides support for threads
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In [ ]: activecount()-returns the number of thread objects that are active
currentthread()-returns the current thread object wich corresponds to the caller's
enumerate()-returns the list of all thread objects that are alive
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In [ ]: 3.explain the following functions
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In [ ]: run()-this method is the entry point for a thread
start()-this method start a thread by calling the run method
join()-this method waits for thread to terminate
isalive()-this method checks whether a thread is still executing
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In [ ]: 4.write a python program to create two threads .thread one must print the list of s
the list of cubes
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In [11]: import threading

def print_square(num):
    print("square:{ } ".format(num*num))

def print_cube(num):
    print("cube:{ }".format(num*num*num))

if __name__=="__main__":
    t1=threading.Thread(target=print_square,args=(10,))
    t2=threading.Thread(target=print_cube,args=(10,))

    t1.start()
    t2.start()

    t1.join()
    t2.join()
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square:100
cube:1000
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In [ ]: 5.state advantages and disadvantages of multithreading
->advantages-streamlines the efficient utilization of resources as the thread share
and data space .it also allows concurrent apperance of multiple task and reduce t
disadvantages-only one thread at a time is allowed to run python code which is on
increased difficulty level in writing program
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In [ ]: 6.deadlock-two threads hold locks on different resources each waiting indefinitely
to release its lock .a deadlock is concurrency failure mode where a thread or thr
that never occurs

race condition- occurs when two threads a shared variable at the same time .the f
and the second thread reads the same value from the variable
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