```
PROGRAM:
import threading
import xml.etree.ElementTree as et
import unittest


class TestClass(unittest.TestCase):
        def test1(self):
                self.assertEqual(func("input.xml"),True)
        def test2(self):
                self.assertEqual(func("lolnoob"),False)




class Sort:
        arr=[]
        def __init__(self,a):
                self.arr=a

        def Partition(self,p,q):
                pivot=self.arr[p]
                i=p
                for j in range(p+1,q+1):
                        if(self.arr[j]<pivot):
                                i+=1
                                temp=self.arr[i]
                                self.arr[i]=self.arr[j]
                                self.arr[j]=temp
                temp=self.arr[i]
                self.arr[i]=self.arr[p]
                self.arr[p]=temp
                return i

        def QuickSort(self,p,q):
                if(p<q):
                        r=self.Partition(p,q)
                        t1=threading.Thread(target=self.QuickSort,args=(p,r-1))
                        t2=threading.Thread(target=self.QuickSort,args=(r+1,q))
                        t1.start()
                        t2.start()
                        t1.join()
                        print t1.getName()
                        t2.join()
                        print t2.getName()
                return self.arr


def func(filename):
        try:
```

```python
                name=filename.split(".")
                if(name[1]=='xml'):
                        tree=et.parse(filename)
                        root=tree.getroot()
                        a=map(int,root.text.split())
                        obj=Sort(a)
                        a=obj.QuickSort(0,(len(a)-1))
                        print "Sorted Array:",a
                        return True
        except Exception as e:
                #raise e
                print "ERROR BRUH"
        return False

if __name__ == '__main__':
        func("input.xml")

unittest.main()
```

INPUT.xml

```xml
<?xml version="1.0" encoding="UTF-8"?>


<data> 9 10 3 7 45 -96 154 457 </data>
```

OUTPUT:

```
[cl-3@localhost FinalCodesCL3]$ cd A2
[cl-3@localhost A2]$ python a2.py
Thread-3
Thread-5
Thread-7
Thread-9
 Thread-8
Thread-4
 Thread-10
Thread-6
Thread-1
Thread-2
Sorted Array: [-96, 3, 7, 9, 10, 45, 154, 457]
Thread-13
Thread-17
Thread-18
Thread-15
Thread-14
```

Thread-19
Thread-20
 Thread-11
Thread-16
Thread-12
Sorted Array: [-96, 3, 7, 9, 10, 45, 154, 457]
.ERROR BRUH
.

Ran 2 tests in 0.001s

OK
[cl-3@localhost A2]$

TESTCASES

Sr No.	Input	Expected Output	Actual Output
1	Input- [9,10, 3, 7, 45, -96, 154, 457]	Sorted Array: [-96, 3, 7, 9, 10, 45, 154, 457]	Sorted Array: [-96, 3, 7, 9, 10, 45, 154, 457]
2	Input- [9, 3,10, 7, 45, -96, 45, 457]	Sorted Array: [-96, 3, 7, 9, 9, 45, 45, 457]	Sorted Array: [-96, 3, 7, 9, 9, 45, 45, 457]
3	Input- [-9,-15,0,15,4]	[-15,-9,0,4,15]	[-15,-9,0,4,15]