

算法exercise02

homework

```
1.  #!usr/bin/python
2.  -*-encoding:utf-8 -*-
3.
4.  import sys
5.  import os, tarfile
6.  import string
7.
8.  file_num = 0
9.  result = 0
10.
11.  #命名
12.  def despath_name(pathname):
13.      return pathname[:-9]
14.
15.  #解压缩tar
16.  def unpack_path_file(pathname):
17.      if not pathname.endswith("tar.gz"):
18.          return;
19.      archive = tarfile.open(pathname, 'r:gz')
20.      filenames = archive.getnames()
21.      print("解压缩后的文件：" )
22.      print(filenames)
23.      despath = despath_name(pathname)
24.      archive.extractall(despath)
25.      archive.close()
26.      # for filename in filenames:
27.      #     filepath = os.getcwd() + "/" + filename
28.      #     print(filepath)
29.      #     archive.extract(filename, pathname[:-7])
30.
31.
32.  #读文件数字
33.  def read_file_number(pathname):
34.      print("读到的文件路径：" + pathname)
35.      number = 0
36.      finalfile = open(pathname, 'r')
37.      line = finalfile.readline()
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38.     print("文件内容是：" + line)
39.     number = (string.atoi(line) >= 0) and string.atoi(line) or 0
40.     finalfile.close()
41.     return number
42.
43. #文件操作
44. def file_action(pathname):
45.     global file_num
46.     global result
47.     result += read_file_number(pathname)
48.     if not os.path.isdir(pathname):
49.         file_num += 1
50.
51. #递归求解
52. static_num = 0
53. def recurs_file(pathname):
54.     unpack_path_file(pathname)
55.     newpath = pathname[:-7]
56.
57.     if os.path.isdir(newpath):
58.         filelist = os.listdir(newpath)
59.         print("子文件:")
60.         print(filelist)
61.         for file in filelist:
62.             global static_num
63.             static_num += 1
64.             current_path = newpath + "/" + file
65.             print("当前文件：" + current_path)
66.             recurs_file(current_path)
67.     else:
68.         file_action(newpath)
69.
70.
71. recurs_file(sys.argv[1])
72. print(static_num)
73. # unpack_path_file(sys.argv[1])
74.
75. print("最终结果是:")
76. print("文件数：" + '%d' %file_num)
77. print("非负数的和：" + '%d' %result)
78.
79.
```

