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CS342
Project 2 Report

I checked uniqueness while reducer threads are reading data from the temporary files. It divides records from the input files to their modulo with R and creates temp files with two index, first index for file which is thread is using and the second index is for modulo with R. Then reducer threads read data from those files into a linked list and while doing it they check for the uniqueness. I use linked list for storing data. Last merger thread reads from numbered temp files and puts every record in a linked list.

```
javid@javid-VirtualBox:~/Documents/CS342Fall2016JavidKarimbayli/project2$ ./callcount 3 2 i1  
i2 i3 o1 0000 9999 00000000 99999999
```

Number of arguments: 11

filename0: i1

filename1: i2

filename2: i3

indexSaver: 5 year: 0 eyear: 9999 startId: 0 endId: 99999999

.....starting thread[0]

string is: temp0-1

string is: temp0-1

string is: temp0-0

string is: temp0-1

string is: temp0-1

end of working in thread[0] for file[i1]

.....starting thread[1]

string is: temp1-1

string is: temp1-0

end of working in thread[1] for file[i2]

.....starting thread[2]

string is: temp2-1

string is: temp2-0

string is: temp2-1

string is: temp2-1

end of working in thread[2] for file[i3]

===== REDUCER_THREAD[0] working=====

temp is: temp0-0

Content of temp0-0.txt :

caller id: 45933332 called id:12345678

temp is: temp1-0

Content of temp1-0.txt :

caller id: 34567332 called id:12345678

caller id: 45933332 called id:22345678

temp is: temp2-0

Content of temp2-0.txt :

caller id: 33333332 called id:12345678
caller id: 34567332 called id:22345678
caller id: 45933332 called id:22345999
thread sum caller id: 33333332 count: 1
thread sum caller id: 34567332 count: 1
===== REDUCER_THREAD[1] working=====
temp is: temp0-1

Content of temp0-1.txt :
caller id: 3473331 called id:12345678
caller id: 33333331 called id:12345698
caller id: 33333333 called id:11111112
caller id: 33333333 called id:11111111
temp is: temp1-1

Content of temp1-1.txt :
caller id: 3473331 called id:12345678
caller id: 33333331 called id:12345698
caller id: 33333333 called id:11111112
caller id: 33333333 called id:11111111
caller id: 33333333 called id:12345678
temp is: temp2-1

Content of temp2-1.txt :
caller id: 3473331 called id:12345678
caller id: 33333331 called id:12345698
caller id: 33333333 called id:11111112
caller id: 33333333 called id:11111111
caller id: 33333333 called id:12345678
caller id: 33333333 called id:12345999
caller id: 33335331 called id:11111111
caller id: 33433331 called id:11111121
thread sum caller id: 3473331 count: 2
thread sum caller id: 33333331 count: 1
thread sum caller id: 33335331 count: 1
thread sum caller id: 33433331 count: 1

MERGER THREAD

out is:o1
read file :temp0
read file :temp1
caller id: 3473331 count: 1
caller id: 33333331 count: 1
caller id: 33333332 count: 2
caller id: 33335331 count: 1
caller id: 33433331 count: 1
caller id: 34567332 count: 1
It takes: 0.000719 seconds