Unix mid

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OS: Mac

(1) (1 pt) First sorts the lines
(2) (3 pts) Then acts the same as uniq.

In the report, you only need to mention how to run your program.

1. Compile the program: `gcc -o suniq suniq.c`
2. Use the file: `.\suniq -i source1.txt` (for example)

```
PS D:\Unix\mock\mid> gcc -o suniq suniq.c
PS D:\Unix\mock\mid> .\suniq  -i .\source1.txt
Bird
Camel
Elephant
Fish
KOALA
Shark
Whale
alligator
bear
camel
dolphin
fish
koala
lion
shark
whale
```

(2)

Function	User CPU (s)	System CPU (s)	Clock Time (s)
fread/fwrite with 1 byte	1.47s	0.03s	1.841s
fread/fwrite with 32 bytes	0.06	0.01s	0.406s

fread/fwrite with 1024 bytes	0.01s	0.02s	0.268
fread/fwrite with 4096 bytes	0.01s	0.02s	0.272
fgets/fputs with 4096 bytes	0.01s	0.01s	0.265
fgetc/fputc	1.34s	0.02s	1.611s

Observation:

1. It is more efficient with large bytes.
2. `fgets/fputs` is slower than `fread/fwrite` when the bytes is the same.
3. System CPU time is roughly lower when the bytes is larger.