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cs-35l / **assignment3** / **hw3.txt**

prithvikannan wrote shuf.py

c43f543   on Oct 18

1 contributor

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58 lines (46 sloc)   2.4 KB

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 1   Prithvi Kannan
 2   UID: 405110096
 3
 4   Q1: Does the patch improve the performance of ls or make it worse?
 5
 6   The patch removes an if statement "if (ignore_mode == IGNORE_DEFAULT)" in the
 7   case 'A' section and replaces it with just the line
 8   "ignore_mode = IGNORE_DOT_AND_DOTDOT". This is faster since the program no
 9   longer has to check the value of ignore_mode.
10
11   Q2. If your company adopts this patched version of Coreutils instead of the
12   default one, what else should you watch out for? Might this new version of
13   Coreutils introduce other problems with your application?
14
15   The company should watch out for programs where the order of flags mattered. If
16   there were places where the ls -A -a was used instead of ls -a -A (since they
17   used to do the same thing), those will no longer do the same thing.
18
19   Q3. What happens when this script is invoked on an empty file like /dev/null,
20   and why?
21
22   I got the following error when I ran on /dev/null:
23   Traceback (most recent call last):
24   File "randline.py", line 70, in <module>
25       main()
26   File "randline.py", line 64, in main
27       sys.stdout.write(generator.chooseline())
28   File "randline.py", line 34, in chooseline
29       return random.choice(self.lines)
30   File "/usr/local/cs/Python-2.7.9/lib/python2.7/random.py", line 275, in choice
31       return seq[int(self.random() * len(seq))]
32       # raises IndexError if seq is empty
33   IndexError: list index out of range
34   This is because randline.py will try to print random lines from an empty file.
35   So the chooseLine function is trying to get the length of something that is
36   null.
37
38   Q4. What happens when this script is invoked with Python 3 rather than Python 2,
39   and why? (You can run Python 3 on the SEASnet hosts by using the command python3
40   instead of python.)
41
42   When I run with python3, I get the following syntax error:
43     File "randline.py", line 65
44       except IOError as (errno, strerror):
45                     ^
46   SyntaxError: invalid syntax
47   This is because of a change in python3 syntax where it does not support
48   automatic tuple unpacking, therefore the line (errno, strerror) is invalid. This
49   post explains why this was removed: https://www.python.org/dev/peps/pep-3113/
50
51
```

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52   Q5. What happens when your shuf.py script is invoked with Python 2 rather than
53   Python 3, and why?
54
55   Running shuf with python2 still works and gives the same behavior as python3
56   since python is backward compatible. This is to allow for new code to be written
57   in python3 and still run with older python 2 systems.
58
```