CS 35L, Week 2, Fall 2017

sed quick tutorial

Software Construction Laboratory

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Some slides based on slides of previous CS35L TAs: Carbjal, Mevlut, Aishwarya, Lauren.

UCLA

sed: stream editor

- ***sed*** is a text editor that performs editing line by line on inputs coming from standard input or a file.

Usage:

```
sed [options] commands [file-to-edit]
```

sed: stream editor

Usage:

```
sed [options] commands [file-to-edit]
```

sed commands:

p: print

d: delete

s: substitute

sed print command

```
sed 'p' test.txt
```

- Will print every line in file twice. Why is that ?
  - By default, `sed` will print both the input and output lines.
- Use `sed -n` to prevent printing the input back to STDOUT.

```
sed -n 'p' test.txt
```

sed print command examples

Print only line in the input file.

```
sed -n '3p' test.txt
```

Print line 1 through 5 in the input file.

```
sed -n '1,5p' test.txt
```

Print 5 lines starting from line 1.

```
sed -n '1,+5p' test.txt
```

Print every other line starting from line 1.

```
sed -n '1~2p' test.txt
```

sed print command examples

Notice:
You can run more than one sed command at same time.

Print lines 1, 7, and 9 of file test.txt

```
sed -n -e '1p' -e '7p' -e '9p' test.txt
```

sed delete command

Print every line but not line 3. I.e. delete line 3.

```
sed ‘3d’ test.txt
```

Print all lines except for lines 2 through 4.
I.e. delete lines 2 and 4.

```
sed  ‘2,4d’ test.txt
```

sed substitute command

Replace old_word by new_word

```
sed ’s/old_word/new_word/' filename
```

Example:

echo 'www.ucla.edu' | sed 's/edu/org/'

Prints: `www.ucla.org`

Note:

sed -i ’s/ / /‘

sed substitute command: Examples

Try this:

```
echo 'I have 33 apples and 4 apples.' | sed 's/[0-9][0-9]*/-/'
```

By default, sed replaced only the first match on every line.

global replace: use g option to replace all occurrences.

```
echo 'I have 33 apples and 4 bananas.' | sed 's/[0-9][0-9]*/-/g'
```

Extracting matching patterns:

```
echo 'I have 33 apples and 4 bananas.' | sed 's/[0-9][0-9]*/(&)/g'
```

Using patterns in sed

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print lines between start and end patterns.

```
sed -n '/start/,/end/p' test.txt
```

delete lines between start and end patterns.

```
sed '/start/,/end/d' test.txt
```

Note: works across multiple lines.

Find more info at:

https://www.gnu.org/software/sed/manual/sed.html

http://www.grymoire.com/Unix/Sed.html

Send any question to
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