

# Substitution Grouping with sed



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# Danny Stretches Himself



- Transform last-names to uppercase
- Group digits for readability
- Sed substitution grouping provided the solution for Danny

# Substitution Groups

`s/`

substitution

`\([^\,]*\)`

Grouping defined with  
escaped parentheses

`^U\1/`

Replace string: upper cases  
first grouping

The search string identifies  
all characters up to the  
first comma

The replace string  
uppercases the first group

```
$ sed 's@\[^\,]*\[@\U\1@' employees
```

```
$ sed 's@\[^\,]*\@,\[^\,]*\[@\U\1\L\2@' employees
```

## Working with the employees file

Uppercase the first field of a comma separated file

Uppercase the first field and lowercase the second field of a comma separated file



Demo Time : Format the employees file

Danny, You Are Simply  
Awesome

Danny, You Are Simply

You and sed

```
$ sed 's/\(^|^[0-9.])\([0-9]\+\)\([0-9]\{3\}\)/\1\2,\3/g'  
/proc/loadavg
```

Want something a little more challenging?

Grouping numbers in to 1000s

Looks a little complex but we are printing a comma in front of groups of 3 numbers

# Edit the Catalog

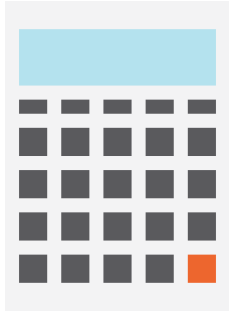
```
$ cat catalog.sed
```

```
s/,/:/g
```

```
s/\(^|^[^0-9.]\)\([0-9]\+\)\([0-9]\{3\}\)/\1\2,\3/g
```

```
$ sed -i -f catalog.sed catalog/*
```

Danny needs to edit all of the catalogs within the catalog directory, replacing the field delimiters with colons and grouping the price column into 1000s



## Demo Time : Working with numbers and the product catalogs

# Summary



- Again we have helped HR with formatting the employees file
- Sales are over the moon that we have been able to tidy up the display of prices in all the catalogs
- `\( \)` Escaped parenthesis have been our tool

Next up we use sed to execute  
commands.