

# Python regex `sub` function for search and replace

Python regex substitute function.

## We'll cover the following

- Python search and replace
- Syntax
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## Python search and replace #

The `sub()` function replaces every occurrence of a pattern with a string or the result of a function.

## Syntax #

```
re.sub(pattern, repl, string, maximum=0)
```

This method replaces all occurrences of the `re pattern` in `string` with `repl`, substituting all occurrences unless a `maximum` value is provided. Finally, returns the modified string.

## Example 1 #

Format the phone number `+61-927 479-548`, remove everything except the digits:

```
1 #!/usr/bin/python
2 import re
3
4 phone = "Please call the phone # +61-927 479-548"
5
6 # Remove anything other than digits
7 num = re.sub(r'\D', "", phone)
8 print "The raw phone numbe is : ", num
```





## Example 2: #

Let's use the `sub()` function to “munge” a text, i.e., **randomize** the order of all the characters in each word of a sentence except for the first and last characters:

```
1  #!/usr/bin/python
2  import re
3  import random
4
5  def repl(m):
6      inner_word = list(m.group(2))
7      random.shuffle(inner_word)
8      return m.group(1) + "".join(inner_word) + m.group(3)
9
10 line = "Learn Scientific Python with Regex";
11 m = re.sub(r"(\w)(\w+)(\w)", repl, line);
12
13 if m:
14     print "munged : ", m;
15 else:
16     print "No match!!";
```

