# PYTHON ADVANCED PROGRAMMING

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# Multiple Matches

Search() is used to look for single instances of literal text strings. The findall() function returns all substrings of the input that match the pattern without overlapping.

```
import re
text = ’abbaaabbbbaaaaa’
pattern = ’ab’
for match in re.findall(pattern, text):
        print(‘Found’,match)
```

```
Output:
Found ‘ab’
Found ‘ab’
```

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finditer() returns an iterator that produces Match instances instead of the strings returned by findall() .

```
import re
text = ’abbaaabbbbaaaaa’
pattern = ’ab’
for match in re.finditer(pattern, text):
        s = match.start()
        e = match.end()
        print ’Found (text[s:e], s, e)
```

Output:

```
0:2
5:7
```

**Raw String:** String prefixed with r. Tells not to handle backslashes in any special way.

Sample example:

```
print(‘\ttab’)

Output:         tab

print(r’\ttab’)

Output:\ttab
```

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**Regarding ‘.’:**

pattern=re.compile(r’.’)

Matches almost every thing except new line character

If you want print only ‘.’ then

pattern=re.compile(r’\.’)

Output will match only ‘.’ character

**Example:**

pattern=re.compile(r’rama\.com’)

Output can be rama.com

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Lets have our text as Ha HaHa

Example: match all Ha's

pattern=re.compile(r'\bHa')

\b - word boundary

Output will be words of Ha but does not include last Ha since it is not a word boundary. A word boundary will be start with a line word or a word followed by a space

So if we want only the last Ha which is not a word boundary we use \B

Ex: pattern=re.compile(r'\BHa')

Last Ha can be printed as output

Let sentence=’start of a sentence and end’

^ - Begin of string
$ - end of string

pattern=re.compile(r’^start’)

Output will be given as start is at the begining

pattern=re.compile(r’^a’)

Output will not be a match since a is not at begining

pattern=re.compile(r’end$’)
Output will be given as the text end is at the last

pattern=re.compile(r’a$’)

Output will not be a match since it is not end

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Meta characters can be used for various use cases like matching phone numbers

ex. 080-12312

To match above we can use

```
pattern=re.compile(r’\d\d\d.\d\d\d\d\d’)
```

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# THANK YOU

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