

REGULAR EXPRESSION

FIRST WE HAVE TO IMPORT THE REGULAR EXPRESSION PACKAGE "RE"

- `*re.methodname(String/string variable,pattern variable)`

*methods in re

`search()`

`match()`

`findall()`

```
In [1]: 1 import math
        2 math.sqrt(36)
```

Out[1]: 6.0

```
In [2]: 1 36**0.5
```

Out[2]: 6.0

```
In [4]: 1 import re
        2 re.search("A", "APSSDC")
```

Out[4]: <re.Match object; span=(0, 1), match='A'>

```
In [6]: 1 print(re.search("pyt", "PYTHON"))
        2 print(re.search("SS", "APSSDC"))
```

None
<re.Match object; span=(2, 4), match='SS'>

```
In [4]: 1 import re
        2 n = input()
        3 print(re.search("@",n))
        4 print(re.search("SS", "APSSDC"))
```

123@djh
<re.Match object; span=(3, 4), match='@'>
<re.Match object; span=(2, 4), match='SS'>

```
In [5]: 1 n = input()
        2 print(re.search("SS",n))
```

apssdc
None

```
In [10]: 1 #Match method
        2 print(re.match("AS", "APSSDC")) #check character by character
        3 print(re.match("APS", "APSSDC"))
        4 print(re.match("SS", "APSSDC"))
```

None
<re.Match object; span=(0, 3), match='APS'>
None

```
In [9]: 1 #findall
        2 print(re.findall("ss", "ApssdcSSDssDss"))
        3 s=re.findall("ss", "ApssdcSSDssDss")
        4 print(len(s))
        5 print(s)
```

['ss', 'ss', 'ss', 'ss']
4
['ss', 'ss', 'ss', 'ss']

In [1]:

1

#7013021421 match("701",7013021421)

2

#0123456789 search("7")

SYMBOLS IN RE

<img src =

In [3]:

1

import re

2

re.search("..", "APSSDC")

Out[3]: <re.Match object; span=(0, 2), match='AP'>

In [5]:

1

print(re.search("..", "@PSSDC"))

2

print(re.search("..", "AP"))

3

print(re.search("..", "A"))

4

print(re.search("..", ""))

<re.Match object; span=(0, 2), match='@P'>
<re.Match object; span=(0, 2), match='AP'>
None
None

In [6]:

1

#"^"symbol

2

print(re.search("^A", "APSSDC"))

3

print(re.search("^AP", "APSSDC"))

4

print(re.search("^A", "SAPSSDC"))

<re.Match object; span=(0, 1), match='A'>
<re.Match object; span=(0, 2), match='AP'>
None

In [7]:

1

#"\$" symbol

2

print(re.search("DC\$", "APSSDC"))

3

print(re.search("C\$", "APSSDC"))

4

print(re.search("DC\$", "APSSCD"))

5

print(re.match("DC\$", "APSSDC"))

<re.Match object; span=(4, 6), match='DC'>
<re.Match object; span=(5, 6), match='C'>
None
None

In [9]:

1

"*" symbol

2

print(re.search("A", "APSSDC"))

3

print(re.search("A*", "PSSDC"))

4

print(re.search("A", "PSSDC"))

<re.Match object; span=(0, 1), match='A'>
<re.Match object; span=(0, 0), match=''>
None

In [10]:

1

"+" symbol #minimum one time

2

print(re.search("A+", "AAAAAAAAAPSSDC"))

3

print(re.search("A+", "PSSDC"))

4

print(re.search("A+", "APSSDC"))

<re.Match object; span=(0, 9), match='AAAAAAAAA'>
None
<re.Match object; span=(0, 1), match='A'>

In [12]:

```
1  #{min,max}
2  print(re.search("A{1,7}", "AAAAAAAAAAPSSDC"))
3  print(re.search("A{1,5}", "AAAAAAAAAAPSSDC"))
4  print(re.search("A{1}", "PSSDC"))
5  print(re.search("A{0,1}", "PSSDC"))
6
```

<re.Match object; span=(0, 7), match='AAAAAAA'>
<re.Match object; span=(0, 5), match='AAAAA'>
None
<re.Match object; span=(0, 0), match=''>

In [13]:

```
1  #[]
2  print(re.search("[ST]", "AAAAAAAAAAPSSDC"))
3  print(re.search("[TV]", "PSSDC"))
4  print(re.search("[TV]", "APSSTDC")) #either T/V
5  print(re.match("[ASP]", "PSSDC"))
6  print(re.match("[TV]", "APSSDCTV"))
7
8
```

<re.Match object; span=(11, 12), match='S'>
None
<re.Match object; span=(4, 5), match='T'>
<re.Match object; span=(0, 1), match='P'>
None

In [14]:

```
1  #"\d, \D, \s, \s"
2  print(re.search("\d", "AA12PSSDC"))
3  print(re.search("\d\d", "PSS12DC"))
4  print(re.search("\D", "12PSSDC"))
5  print(re.match("\d\d", "12AAAAAPSSDC"))
6  print(re.match("\d\d", "Ss12AAAAAPSSDC"))
7
```

<re.Match object; span=(2, 3), match='1'>
<re.Match object; span=(3, 5), match='12'>
<re.Match object; span=(2, 3), match='P'>
<re.Match object; span=(0, 2), match='12'>
None

In []:

```
1
```