

Aim : Regular Expression

Code:

```
import re
```

```
def re_split():
```

```
    print("Syntex \t\t:\tre.split(pattern,string,maxsplit) ")
```

```
    print("String \t\t:\tmy name is animesh.")
```

```
    print("Pattern \t:\tr's")
```

```
    print("Maxsplit \t:\t2")
```

```
    a = 'my name is animesh.'
```

```
    b=re.split(r's',a, maxsplit=2)
```

```
    print("Result \t:\t",b)
```

```
def re_match():
```

```
    print("Syntex \t\t:\tre.match(pattern,string) ")
```

```
    print("String \t\t:\tmy name is animesh.")
```

```
    print("Pattern \t:\t'(m\w+)\W(n\w+)")
```

```
    a = "my name is animesh."
```

```
    b = re.match('(m\w+)\W(n\w+)',a)
```

```
    print("Result \t:\t",b)
```

```

def re_search():
    print("Syntex \t\t:\tre.search(pattern,String) ")
    print("""String \t\t:\tmy name is animesh.
            am istudent""")
    print("Pattern \t:\t'a\w+")
    a = "my name is animesh.
        am istudent"
    b = re.search('a\w+',a,re.MULTILINE)
    print("Result \t\t:\t",b)

```

```

def re_findall():
    print("Syntex \t\t:\tre.search(pattern,String) ")
    print("""String \t\t:\tmy name is animesh.
            am istudent""")
    print("Pattern \t:\t'a\w+")
    a = "my name is animesh.
        am istudent"
    b = re.findall('a\w+',a)
    print("Result\t\t:\t",b)

```

```

def re_sub():
    print("Syntex \t\t:\tre.search(pattern,replace String,String)")

```

```
print("""String \t\t:\tHello World""")
```

```
print("Pattern \t:\t'World'")
```

```
print("replace String \t:\t'India.'")
```

```
a = "Hello World"
```

```
b = re.sub('World','India.',a)
```

```
print("Result\t\t:\t",b)
```

```
def re_compile():
```

```
    print("Syntex \t\t:\tre.search(pattern,flags)")
```

```
    print("""String \t\t:\tHello World""")
```

```
    print("flags \t\t:\tflags=re.I")
```

```
    a = "Hello World"
```

```
    c = re._compile(a,flags=re.I)
```

```
    print("Result\t\t:\t",c)
```

```
    b = re.sub('World','India.',a)
```

```
    print("Result of Sub\t\t:",b)
```

```
def re_escape():
```

```
    print("Syntex \t\t:\tre.search(String)")
```

```
    print("""String \t\t:\tHEllo @@ world.""")
```

```
    a = "HEllo @@ world."
```

```
    b = re.escape(a)
```

```
print("Result\t\t:",b)
```

```
def re_fullmatch():
```

```
    print("Syntex \t\t:\tre.search(compare String,String)")
```

```
    print("""compare String \t\t:\tHello""")
```

```
    print("String \t\t:\tHello World.")
```

```
    a = "Hello"
```

```
    b = "Hello World "
```

```
    b = re.fullmatch(a,b)
```

```
    print("Result\t\t:",b)
```

```
def re_finder():
```

```
    print("Syntex \t\t:\tre.search(pattern,String)")
```

```
    print("""String \t\t:\tHello World""")
```

```
    print("pattern \t:\tr'\w'")
```

```
    a = "Hello World"
```

```
    b = re.finditer(r'\w',a)
```

```
    print("Result\t\t:",b)
```

```
def re_subn():
```

```
    print("Syntex \t\t:\tre.subn(pattern,String,string,intiger)")
```

```
    print("""String \t\t:\ta""")
```

```
print("""String \t\t:\tb""")
print("""intiger \t\t:\t3""")
print("pattern \t:\thello world.")
a='hello world.'
b=re.subn(a,'a','b',3)
print(b)
```

```
print("\t\t\t\tREGULAR EXPRESSION")
print("Functions of Regular Expression's Mathod : ")
print("")
print("""1.re.split()\n
        2.re.match()\n
        3.re.search()\n
        4.re.findall()\n
        5.re.sub()\n
        6.re.compile()\n
        7.re.escape()\n
        8.re.fullmatch()\n
        9.re.finditer()\n
        10.re.subn()
        """)
```

```
number =int(input("Enter your mathod number : "))
```

```
if(number==1):
```

```
    re_split()
```

```
elif(number==2):
```

```
    re_match()
```

```
elif(number==3):
```

```
    re_search()
```

```
elif(number==4):
```

```
    re_findall()
```

```
elif(number==5):
```

```
    re_sub()
```

```
elif(number==6):
```

```
    re_compile()
```

```
elif(number==7):
```

```
    re_escape()
```

```
elif(number==8):
```

```
    re_fullmatch()
```

```
elif(number==9):
```

```
    re_finditer()
```

```
elif(number==10):
```

```
    re_subn()
```

else:

```
print("Please Enter valid number.")
```

Output:

```
===== RESTART: C:\Users\my laptop\Desktop\Python\regular_expression.py =====
                                REGULAR EXPRESSION
Functions of Regular Expression's Method :

1.re.split()

    2.re.match()

    3.re.search()

    4.re.findall()

    5.re.sub()

    6.re.compile()

    7.re.escape()

    8.re.fullmatch()

    9.re.finditer()

    10.re.subn()

Enter your method number : 1
Syntex      :      re.split(pattern,string,maxsplit)
String      :      my name is animesh.
Pattern     :      r'\s'
Maxsplit    :      2
Result     :      ['my', 'name', 'is animesh.']
>>> |
```

```
ANSWER: C:\Users\my\Desktop\Python\Regular_Expression.py
REGULAR EXPRESSION
```

Functions of Regular Expression's Method :

- 1.re.split()
- 2.re.match()
- 3.re.search()
- 4.re.findall()
- 5.re.sub()
- 6.re.compile()
- 7.re.escape()
- 8.re.fullmatch()
- 9.re.finditer()
- 10.re.subn()

Enter your method number : 2

Syntax : re.match(pattern,string)

String : my name is animesh.

Pattern : '(m\w+)\W(n\w+)'

Result : <re.Match object; span=(0, 7), match='my name'>

\\n |


```
==== RESTART: C:\Users\my laptop\Desktop\Python\regular_expression.py
REGULAR EXPRESSION
```

Functions of Regular Expression's Method :

1.re.split()

2.re.match()

3.re.search()

4.re.findall()

5.re.sub()

6.re.compile()

7.re.escape()

8.re.fullmatch()

9.re.finditer()

10.re.subn()

Enter your method number : 3

Syntax : re.search(pattern,String)

String : my name is animesh.
am istudent

Pattern : 'a\w+'

Result : <re.Match object; span=(4, 7), match='ame'>

10.re.subn()

Enter your method number : 4

Syntax : re.search(pattern,String)

String : my name is animesh.
am istudent

Pattern : 'a\w+'

Result : ['ame', 'animesh', 'am']

>>>

Enter your method number : 5

Syntax : re.search(pattern,replace String,String)

String : Hello World

Pattern : 'World'

replace String : 'India.'

Result : Hello India.

>>>

```
Enter your method number : 6
Syntex      : re.search(pattern,flags)
String      : Hello World
flags       : flags=re.I
Result      : re.compile('Hello World', re.IGNORECASE)
Result of Sub : Hello India.
>>>
```

```
===== RESTART: C:\Users\my laptop\Desktop\Python\regular_expre
REGULAR EXPRESSION
```

```
Functions of Regular Expression's Method :
```

```
1.re.split()
```

```
2.re.match()
```

```
3.re.search()
```

```
4.re.findall()
```

```
5.re.sub()
```

```
6.re.compile()
```

```
7.re.escape()
```

```
8.re.fullmatch()
```

```
9.re.finditer()
```

```
10.re.subn()
```

```
Enter your method number : 7
```

```
Syntex      : re.search(String)
String      : Hello @@ world.
Result      : Hello\ @@\ world\.
```

```
>>>
```

===== RESTART: C:\Users\my laptop\Desktop\Python\regular_expression.py =====

REGULAR EXPRESSION

Functions of Regular Expression's Method :

1.re.split()

2.re.match()

3.re.search()

4.re.findall()

5.re.sub()

6.re.compile()

7.re.escape()

8.re.fullmatch()

9.re.finditer()

10.re.subn()

Enter your method number : 8

Syntax : re.search(compare String,String)

compare String : Hello

String : Hello World.

REGULAR EXPRESSION

Functions of Regular Expression's Method :

1.re.split()

2.re.match()

3.re.search()

4.re.findall()

5.re.sub()

6.re.compile()

7.re.escape()

8.re.fullmatch()

9.re.finditer()

10.re.subn()

Enter your method number : 9

Syntax : re.search(pattern,String)

String : Hello World

pattern : r'\w'

Result : <callable_iterator object at 0x0000024FAAC2BDA0>

>>>

```
===== RESTART: C:\Users\my laptop\Desktop\Python\regular_expressi
```

REGULAR EXPRESSION

Functions of Regular Expression's Method :

1.re.split()

2.re.match()

3.re.search()

4.re.findall()

5.re.sub()

6.re.compile()

7.re.escape()

8.re.fullmatch()

9.re.finditer()

10.re.subn()

Enter your method number : 10

Syntax : re.subn(pattern,String,string,intiger)

String : a

String : b

intiger : 3

pattern : hello world.

('b', 0)