Good Morning To All

Regular Expressions

```
In [1]:   1  import re
```

re.match(pattern,string)

re.search(pattern,string)

re.findall(pattern,string)

```
In [6]:   1  s="welcome to Apssdc to Workshop"
          2  re.match('to',s)
```

```
In [7]:   1  re.search('to',s)
```

Out[7]: <re.Match object; span=(8, 10), match='to'>

```
In [8]:   1  re.findall('to',s)
```

Out[8]: ['to', 'to']

```
In [15]:  1  s="sapssd"
          2  # ^- Matches the Begining of a line
          3  re.search('^s',s)
```

Out[15]: <re.Match object; span=(0, 1), match='s'>

In [16]:
```python
# $ - Matches the Ending of a line
re.search('d$',s)
```

Out[16]: <re.Match object; span=(5, 6), match='d'>

In [25]:
```python
# . - Matches any character
re.search('.{5}',s)
```

Out[25]: <re.Match object; span=(0, 5), match='sapss'>

In [30]:
```python
s=['vrsec','svec','srm','vit','jntuk','svecw','gvp']
for i in s:
    if re.search('^.{5}$',i):
        print(i)
```

```
vrsec
jntuk
svecw
```

In [37]:
```python
# \s - Matches the Whitespaces
s="ravi  s  astry"
re.search('\s+',s)
```

Out[37]: <re.Match object; span=(4, 6), match=' '>

In [39]:
```python
# \S - Matches the Non Whitespaces
re.search('\S+',s)
```

Out[39]: <re.Match object; span=(0, 4), match='ravi'>

In [41]:
```python
# \d - Matches the digits
s='apssdc@123'
re.search('\d+',s)
```

Out[41]: <re.Match object; span=(7, 10), match='123'>

In [42]:
```python
# \D - Matches the Non Digits
re.search('\D',s)
```

Out[42]: <re.Match object; span=(0, 1), match='a'>

In [43]:
```python
re.search('\D+',s)
```

Out[43]: <re.Match object; span=(0, 7), match='apssdc@'>

In [46]:
```python
# \w- matches the Non- Specialcharacters
s="@#$%ap123@ssdc"
re.search('\w',s)
```

Out[46]: <re.Match object; span=(4, 5), match='a'>

In [47]:
```python
re.search('\w+',s)
```

Out[47]: <re.Match object; span=(4, 9), match='ap123'>

In [49]:
```python
# \W - Matches the Special Characters
re.search('\W+',s)
```

Out[49]: <re.Match object; span=(0, 4), match='@#$%'>

In [51]:
```python
re.findall('\W+',s)
```

Out[51]: ['@#$%', '@']

In [54]:
```python
# [a-z] - the set of charcters can include a range
s="apssdc@123"
re.search('[a-z]{4}',s)
```

Out[54]: <re.Match object; span=(0, 4), match='apss'>

In [64]:
```python
a=['ravi','anil','anilkmar','ayyappa','satyanarayana','ravikishore','surya']
for i in a:
    if re.search('^[a-z]{4,10}$',i):
        print(i)
```

```
ravi
anil
anilkmar
ayyappa
surya
```

In [65]:
```python
a=['vrsec','vit','srm','svecw','uvxw']
for i in a:
    if re.search('^[s-z]{2,6}$',i):
        print(i)
```

```
uvxw
```

In [69]:
```python
s="welcome 10 apssdc 2020 python 30"
a=re.findall('[0-9]+',s)
print(a)
b=0
for i in a:
    b+=int(i)
print(b)
```

```
['10', '2020', '30']
2060
```

In [79]:
```python
## Phonenumber Validation
a=['a657845678','9876543210','06567890122','768905432134']
# Exact 10 numbers
# Starts with [6-9]
for i in a:
    if re.search('^[6-9][0-9]{9}$|^[0][6-9][0-9]{9}$',i):
        print(i)
```

```
9876543210
06567890122
```

In [ ]:
```python
## Email Validation
## ravisastry.b@apssdc.in
## startswith alphabet
## alphabets,numbers,dot,underscore {7,15}
## @
##alphabets{5,15}
## dot
## alphabets{2,5}
```

In [ ]:
```python

```