```
In [ ]:   # NAME- Nikhil Lalwani
          # Company Name- FlipRobo
          # Assignment- Regex
```

```
In [10]:  import re
```

```
In [12]:  #Answer 1

          string='Python Exercises, PHP exercises.'
          pattern=r'[ .,:]'
          repl=':'
          match=re.sub(pattern,repl,string)
          print(match)s
```

```
Python:Exercises::PHP:exercises:
```

```
In [19]:  #Answer 2

          string='Python Exercises, PHP exercises.'
          pattern=r'[ae]\w+'
          match=re.findall(pattern,string)
          print(match)
```

```
['ercises', 'exercises']
```

```
In [58]:  #Answer 3

          string = 'Python Exercises, PHP exercises'
          pattern= r"\b\w{4,}\b"
          match=re.compile(pattern)
          result=match.findall(string)
          print(result)
```

```
['Python', 'Exercises', 'exercises']
```

```
In [63]:  #Answer 4

          string = 'Python Exercises, PHP exercises'
          pattern= r"\b\w{3,}\b"
          match=re.compile(pattern)
          result=match.findall(string)
          print(result)
```

```
['Python', 'Exercises', 'PHP', 'exercises']
```

```
In [114…  #Answer 5

          string=["example (.com)", "hr@fliprobo (.com)", "github (.com)", "Hello (Data Science
          pattern=r'\([^)]+\)'
          repl=''
          match=[re.sub(pattern,repl,s)for s in strings]
          print(match)
```

```
['example ', 'hr@fliprobo ', 'github ', 'Hello ', 'Data ']
```

```
In [113…  #Answer 6

          string=["example (.com)", "hr@fliprobo (.com)", "github (.com)", "Hello (Data Science
```

```
pattern=r'\([^)]+\)'
repl=''
match=[re.sub(pattern,repl,s)for s in strings]
print(match)
```

```
['example ', 'hr@fliprobo ', 'github ', 'Hello ', 'Data ']
```

In [129...
```
#Answer 7
string='ImportanceOfRegularExpressionsInPython'
pattern=r'[A-Z][a-z]*'
match=re.findall(pattern,string)
print(match)
```

```
['Importance', 'Of', 'Regular', 'Expressions', 'In', 'Python']
```

In [138...
```
#Answer 8

string='RegularExpression1IsAn2ImportantTopic3InPython'
pattern=r'[0-9][^0-9]*'
match=re.findall(pattern,string)
sentence = ' '.join(match)
print(sentence)
```

```
1IsAn 2ImportantTopic 3InPython
```

In [144...
```
#Answer 9

string='RegularExpression1IsAn2ImportantTopic3InPython'
pattern=r'[0-9]|[A-Z][^0-9]*'
match=re.findall(pattern,string)
sentence = ' '.join(match)
print(sentence)
```

```
RegularExpression 1 IsAn 2 ImportantTopic 3 InPython
```

In [148...
```
#Answer 10

text='Hello my name is Data Science and my email address is xyz@domain.com and alterna

pattern=r'[a-z0-9\.\-+_]+@[a-z0-9\.\-+_]+\.[a-z]+'
match=re.findall(pattern,text)
print(match)
```

```
['xyz@domain.com', 'xyz.abc@sdomain.domain.com', 'hr@fliprobo.com']
```

In [159...
```
#Answer 11

string='Hello my name is Data Science and my email address is xyz@domain.com and alter

pattern=r'\w+'
match=re.findall(pattern,string)
print(match)
```

```
['Hello', 'my', 'name', 'is', 'Data', 'Science', 'and', 'my', 'email', 'address', 'i
s', 'xyz', 'domain', 'com', 'and', 'alternate', 'email', 'address', 'is', 'xyz', 'ab
c', 'sdomain', 'domain', 'com', 'Please', 'contact', 'us', 'at', 'hr', 'fliprobo', 'c
om', 'for', 'further', 'information']
```

In [162...
```
#Answer 12

string='Hello my name is Data Science and my email address is xyz@domain.com and alter
```

```python
pattern=r'\d+'
match=re.findall(pattern,string)
print(match)
```

```
[]
```

In [254…
```python
#Answer 13

string='192.168.0.1', '10.0.0.1'

pattern=r'\.[0]*'
repl='.'
match=[re.sub(pattern,repl,string)for string in string]
print(match)
```

```
['192.168..1', '10...1']
```

In [203…
```python
#Answer 14

text = 'On August 15th 1947 that India was declared independent from British coloniali
pattern= r'August \d{1,2}(?:st|nd|rd|th) \d{4}'
result=re.findall(pattern,text)
print(result)
```

```
['August 15th 1947']
```

In [215…
```python
#Answer 15

string='The quick brown fox jumps over the lazy dog.'

pattern=r'fox|dog|horse'
match=re.findall(pattern,string)
print(match)
```

```
['fox', 'dog']
```

In [216…
```python
#Answer 16(part-A)

string='The quick brown fox jumps over the lazy dog.'

pattern=r'fox'
match=re.findall(pattern,string)
print(match)
```

```
['fox']
```

In [217…
```python
#Answer 16(part-B)

string='The quick brown fox jumps over the lazy dog.'

pattern=r'fox'
match=re.search(pattern,string)
print(match)
```

```
<re.Match object; span=(16, 19), match='fox'>
```

In [228…
```python
#Answer 17

string='Python exercises, PHP exercises, C# exercises'

pattern=r'exercises'
```

```
for match in re.findall(pattern, string):
    print('Found "%s"'% match)
```

```
Found "exercises"
Found "exercises"
Found "exercises"
```

In [300…
```
#Answer 18

string = 'Python exercises, PHP exercises, C# exercises'
pattern = 'exercises'

for match in re.finditer(pattern, string):
    print("Found:", match.start(0),match.group(0))
```

```
Found: 7 exercises
Found: 22 exercises
Found: 36 exercises
```

In [243…
```
#Answer 19

string='2026-01-02'

pattern=r'(\d{4})-(\d{1,2})-(\d{1,2})'
repl=r'\3-\2-\1'
match=re.sub(pattern,repl,string)
print(match)
```

```
02-01-2026
```

In [260…
```
#Answer 20

string= '123.11,,123.2,123,0.21,3.124'
pattern=r'\b\d+(\.\d{1,2})?\b'
match=re.compile(pattern)
result=match.findall(string)
print(result)
```

```
['.11', '.2', '', '.21', '', '']
```

In [302…
```
#Answer 21

string = 'i got 87 marks in english, 77 marks in maths and 90 marks in science'
pattern = r'\d+'

for match in re.finditer(pattern, string):
    print("Index position:", match.start(0),match.group(0))
```

```
Index position: 6 87
Index position: 27 77
Index position: 49 90
```

In [467…
```
#Answer 22

string='My marks in each semester are: 947, 896, 926, 524, 734, 950, 642'
pattern=r'\d+'
numbers=re.findall(pattern,string)
print (max(numbers))
```

```
950
```

In [372…
```python
#Answer 23

string='RegularExpressionIsAnImportantTopicInPython'
pattern = r'([a-z])([A-Z])'
repl = r'\1 \2'
match=re.sub(pattern,repl,string)
print(match)
```

Regular Expression Is An Important Topic In Python

In [387…
```python
#Answer 24

string='My name Is nikhil'
pattern=r'[A-Z][a-z]+'
match=re.findall(pattern,string)
print(match)
```

['My', 'Is']

In [391…
```python
#Answer 25

string="Hello hello world world"
pattern=r'\b(\w+)(?:\s+\1\b)+'
repl=''
match=re.sub(pattern,repl,string)
print(match)
```

Hello hello

In [428…
```python
#Answer 26

string='nikhil123, nikk1@@'
pattern = r'^[a-zA-Z0-9]+'
match=re.findall(pattern,string)
print(match)
```

['nikhil123']

In [436…
```python
#Answer 27

string='RT @kapil_kausik: #Doltiwal I mean #xyzabc is "hurt" by #Demonetization as the
pattern=r'#\w+'
match=re.findall(pattern,string)
print(match)
```

['#Doltiwal', '#xyzabc', '#Demonetization']

In [450…
```python
#Answer 28

string='@Jags123456 Bharat band on 28??<ed><U+00A0><U+00BD><ed><U+00B8><U+0082>Those w
pattern = r'<U\+[0-9A-Fa-f]{4}>'
repl=''
match=re.sub(pattern,repl,string)
print(match)
```

@Jags123456 Bharat band on 28??<ed><ed>Those who are protesting #demonetization are
all different party leaders

In [464…
```python
#Answer 29

file='Ron was born on 12-09-1992 and he was admitted to school 15-12-1999'
```

```
pattern=r'\d+-\d+-\d+'
match=re.findall(pattern,file)
print(match)
```

```
['12-09-1992', '15-12-1999']
```

In [475…
```
#Answer 30

string='The following example creates an ArrayList with a capacity of 50 elements. 4 e
pattern = r'\b\w{2,4}\b'
repl=''
match=re.compile(pattern)
result=match.sub(repl,string)
print(result)
```

 following example creates ArrayList a capacity   elements. 4 elements   added   Ar
rayList   ArrayList trimmed accordingly

In [ ]:
```
#END
```

In [ ]: