In [24]:
```
#Q1
import regex as re
y= r'[ ,.]'
text="Magic Twister, Magic Twister."
replace_text=re.sub(y,':',text,flags=re.IGNORECASE)
print(replace_text)
```

```
Magic:Twister::Magic:Twister:
```

In [39]:
```
#Q2
text1="Magic Twister And, Magic Twister End."
x=re.findall(r'\b[ae]\w*',text1,flags=re.IGNORECASE)
print(x)
```

```
['And', 'End']
```

In [49]:
```
#Q3
string2="There are so many hated professors in the XYZ school"
string_pattern=r"\b\w{4}\b"
regex_pattern=re.compile(string_pattern)
result=regex_pattern.findall(string2)
print(result)
```

```
['many']
```

In [53]:
```
#Q4
string2="There are so many hated professors in the XYZ school"
string_pattern=r"\b\w{3,5}\b"
regex_pattern=re.compile(string_pattern)
result=regex_pattern.findall(string2)
print(result)
```

```
['There', 'are', 'many', 'hated', 'the', 'XYZ']
```

In [45]:
```
#Q5
def remove_brackets(text_list):
    modified_lists=[t.replace('(', '').replace(')', '') for t in text_list]
    return modified_lists
Actual_list=["Alvira(.com)", "fentybeauty(.com)","macbeauty(.com)", "Tesla(.com)", "Hello(Vietnam)", "Friend(Ar
modified_lists=remove_brackets(Actual_list)
print(modified_lists)
```

```
['Alvira.com', 'fentybeauty.com', 'macbeauty.com', 'Tesla.com', 'HelloVietnam', 'FriendArchitect']
```

In [5]:
```
#q6
import regex as re
with open ('extract_email1') as file:
    for line in file:
        email= re.sub(r'\([^)]*\)', '', line)
        print(email)
```

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

In [3]:
```
#Q7
text6 = "ImportanceOfRegularExpressionsInPython"
lookup = re.findall(r'[A-Z][a-z]*', text6)
```

In [66]:
```
print(lookup)
```

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

In [113…
```
#Q8
def insert(text):
    pattern = r'([A-Za-z])(\d)'
    new_text = re.sub(pattern, r'\1 \2', text)
    return new_text
```

In [115…
```
text = 'AlviraIs2AnEnemy5ForThe6Knowns'
result = insert(text)
print(result)
```

```
AlviraIs 2AnEnemy 5ForThe 6Knowns
```

In [114…
```
#Q9
def insert(text2):
    pattern = r'([A-Za-z])(\d)'
    new_text1 = re.sub(pattern, r'\1 \2 ', text2)
    return new_text1
```

In [115…
```
text2 = 'AlviraIs2AnEnemy5ForThe6Knowns'
result1 = insert(text2)
print(result1)
```

```
AlviraIs 2 AnEnemy 5 ForThe 6 Knowns
```

In [45]:
```
#Q10
import regex as re
with open ('Extracting_email_2') as file:
```

```
    for line in file:
        pattern=r'[a-zA-Z0-9._%+-]+@[a-zA-Z0-9.-]+\.[a-zA-Z]{2,}'
        result= re.findall(pattern, line)
        print(result)
```

```
['formalxyz@not4.com', 'alvira.123@not45.com']
['vr@theon.com']
```

In [69]:
```
#Q11
string4 = "IamAlvira_2023"

pattern=r'^[A-Za-z_0-9]+$'

match = re.match(pattern, string4)

if match:
    print(f'The presented string "{string4}" is okay.')
else:
    print(f'The presented string "{string4}" is not okay.')
```

```
The presented string "IamAlvira_2023" is okay.
```

In [70]:
```
#Q12
string5 = "9245 The pin code for your rooms are 45, 67, 89, 90, 94"

res = re.search(r'^\d+', string5)
```

In [71]:
```
res
```

Out[71]:
```
<regex.Match object; span=(0, 4), match='9245'>
```

In [72]:
```
#Q13

def removing_zeros(ipaddress1_):

    new_ip_address = re.sub(r'\b0+(\d+)\b', r'\1', ipaddress1_)

    return new_ip_address

ipaddress1_ = "192.010.001.003"
new_ip_address1 = removing_zeros(ipaddress1_)

print("New IP: {new_ip_address1}")
```

```
New IP: {new_ip_address1}
```

In [80]:
```
import regex as re
with open ('Complex_Data1') as file:
    for line in file:
        patterns = r'(\b\w+\s+\d{1,2}(?:st|nd|rd|th)?\s+\d{4}\b)'
    dates=re.findall(patterns, line)
    for Corrected_date in dates:
        print(Corrected_date)
```

```
August 15th 1947
```

In [90]:
```
#Q16
string18 = "We  are going to look for some literal strings now."
result=re.search(r"(literal)",string18)
print(result.group(1))
```

```
literal
```

In [95]:
```
#q17
string20 = "In this era, of globalisation, we have finally found peace."
result44=re.search(r"(globalisation)",string20)

print(result44.group(1))
```

```
globalisation
```

In [96]:
```
#Q18
string20 = "In this era of globalisation, we have finally found peace."

substring1 = "globalisation"

pattern32 = re.compile(substring1)

results = pattern32.finditer(string20)

for r in results:
    start = r.start()
    end = r.end()
    extracted_substring = r.group()
    print(f'Found "{extracted_substring}" at positions {start}-{end}')
```

```
Found "globalisation" at positions 15-28
```

In [104…
```python
#Q19
from datetime import datetime

date1_str = "23-10-04"

dateobject = datetime.strptime(date1_str, "%y-%m-%d")
Converted_date = dateobject.strftime("%d-%m-%y")

print("Actual Date (yyyy-mm-dd):", date1_str)
print("Transformed Date (dd-mm-yyyy):", Converted_date)
```

```
Actual Date (yyyy-mm-dd): 23-10-04
Transformed Date (dd-mm-yyyy): 04-10-23
```

In [111…
```python
#Q20
def look_for_decimal_numbers(text1):
    pattern45 = re.compile(r'\b\d+\.\d{1,2}\b')

    D_N = pattern45.findall(text1)

    return D_N

text1 = "01.13 0452.165 2.24675 126.7 4.02 37.15 0.16"

output = look_for_decimal_numbers(text1)

print(output)
```

```
['01.13', '126.7', '4.02', '37.15', '0.16']
```

In [97]:
```python
#Q21
def separation_by_numbers(textno_123):
    pattern = re.compile(r'\d+')
    results = pattern.finditer(textno_123)
    setting_positions = []

    for r in results:
        number = r.group()
        start = r.start()
        end = r.end()
        setting_positions.append((number, start, end))

    return setting_positions

textno_123 = "The opportunity cost is approximately 50 and thus you should go for the investment giving a retur

FinalResult = separation_by_numbers(textno_123)

for number, start, end in FinalResult:
    print(f"Number: {number}, Position: ({start}, {end})")
```

```
Number: 50, Position: (38, 40)
Number: 100, Position: (102, 105)
```

In [157…
```python
#Q22
Markslist = 'In my first semester I scored: 700, 850, 666, 450, 350, 789,642'
regpattern= r'\d+'

values = re.findall(regpattern, Markslist)

if Markslist:
    the_max_is = max(map(int, values))
    print(f"largest number:", {the_max_is})
```

```
largest number: {850}
```

In [140…
```python
#23
def insert(text2):
    pattern = r'([A-Z])'
    new_text3 = re.sub(pattern, r' \1', text2)
    return new_text3
text2 = 'AlviraIsAnEnemyForTheKnowns'
result3 = insert(text2)
print(result3)
```

```
 Alvira Is An Enemy For The Knowns
```

In [143…
```python
#24
text24 = 'AlviraIsAnEnemyForTheKnowns'
patterns=r'[A-Z][a-z]+'
findthepattern=re.findall(patterns, text24)
print(findthepattern)
```

```
['Alvira', 'Is', 'An', 'Enemy', 'For', 'The', 'Knowns']
```

In [156…
```python
#25
string_50="Alvira was on her her way for her ultimate world world tour until her mother woke her up"
regex=r'\b(\w+)(?:\W\1\b)+'
r=re.sub(regex,r'\1',string_50)
```

```
print(r)
```

```
Alvira was on her way for her ultimate world tour until her mother woke her up
```

In [174…
```
#26
target_string23= "I was on a train to nowehere on Xpress457"
result=re.search(r'[A-Za-z0-9]+$', target_string23)
print("Match object:",result)
```

```
Match object: <re.Match object; span=(32, 41), match='Xpress457'>
```

In [181…
```
#27
target_string27="""WY @Voyma_Sinilk: #Aayra I mean #whynot is "not good" by #Me it is sad to see her like this

result27=re.findall(r'#\w+', target_string27)
print(result27)
```

```
['#Aayra', '#whynot', '#Me']
```

In [196…
```
#28
target_string492= "@Jags123456 Bharat band on 28??<ed><U+00A0><U+00BD><ed><U+00B8><U+0082>Those who  are protes
result97=re.sub(r'<U\+\w{4}>','', target_string492)
print(result97)
```

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

In [70]:
```
#29
import regex as re
extract_date = []
with open ('Change_Dates1') as file:
    for line in file:
        pattern=r'\d\d-\d\d-\d\d\d\d'
        extract_date=re.findall(pattern,line)
```

In [71]:
```
for date in extract_date:
        print(date)
```

```
12-09-1992
15-12-1999
```

In [222…
```
#30
def remove_words(text):
    pattern72 = re.compile(r'\b\w{2,4}\b')

    improved_text= pattern72.sub('',text)

    return improved_text

text = "The star wars cast will be running a live show in London"

output = remove_words(text)

print(output)
```

```
      running a    London
```

In [ ]: