**Regular Expression Practice Questions**

Question 1- Write a RegEx pattern in python program to check that a string contains only a certain set of characters (in this case a-z, A-Z and 0-9).

Answer:

Import re

pattern= "[a-zA-Z0-9]"

string= " Hello to everyone my code is 123"

matches=re.findall(pattern,string)

print(matches)

output:

['H', 'e', 'l', 'l', 'o', 't', 'o', 'e', 'v', 'e', 'r', 'y', 'o', 'n', 'e', 'm', 'y', 'c', 'o', 'd', 'e', 'i', 's', '1', '2', '3']

Question 2- Write a RegEx pattern that matches a string that has an a followed by zero or more b's

Answer:

import re

def match\_pattern(string):

pattern=r"a[b]\*$"

return re.match(pattern,string) is not None

string1="abbbb"

print(match\_pattern(string1))

string2="a"

print(match\_pattern(string2))

output:

True

True

Question 3- Write a RegEx pattern that matches a string that has an a followed by one or more b's

Answer:

import re

pattern =r"ab+"

string1="ab"

string2="abb"

string3="ac"

string4="bcd"

match1=re.match(pattern,string1)

match2=re.match(pattern,string2)

match3=re.match(pattern,string3)

match4=re.match(pattern,string4)

print(bool(match1))

print(bool(match2))

print(bool(match3))

print(bool(match4))

True

True

False

False

Question 4- Write a RegEx pattern that matches a string that has an a followed by zero or one 'b'.

Answer:

import re

pattern=r"ab?"

string1="ab"

string2="a"

string3="ac"

string4="abb"

match1=re.match(pattern,string1)

match2=re.match(pattern,string2)

match3=re.match(pattern,string3)

match4=re.match(pattern,string4)

print(bool(match1))

print(bool(match2))

print(bool(match3))

print(bool(match4))

output:

True

True

True

True

Question 5- Write a RegEx pattern in python program that matches a string that has an a followed by three 'b'.

Answer:

import re

pattern=r"a(b{3})"

strings=["abbb","abb","abbbb","abbba"]

for string in strings:

if re.search(pattern,string):

print(f"match found : {string}")

else:

print(f"No match found:{string}")

output:

match found : abbb

No match found:abb

match found : abbbb

match found : abbba

Question 6- Write a RegEx pattern in python program that matches a string that has an a followed by two to three 'b'.

Answer:

import re

pattern=r"a(b{2,3})"

#test cases

strings=["ab","abb","abbb"',acbbb',"abbbb"]

for string in strings:

if re.search(pattern,string):

print(f"match found:{string}")

else:

print(f"no match found:{string}")

output:

no match found:ab

match found:abb

match found:abbb,acbbb

match found:abbbb

Question 7- Write a Python program that matches a string that has an 'a' followed by anything, ending in 'b'.

Answer:

import re

pattern=r"^a.\*b$"

#test cases

strings=["ab","acb","abb","a123b","axybz"]

for string in strings:

if re.search(pattern,string):

print(f"match found:{string}")

else:

print(f"no match found:{string}")

output:

match found:ab

match found:acb

match found:abb

match found:a123b

no match found:axybz

Question 8- Write a RegEx pattern in python program that matches a word at the beginning of a string.

import re

pattern=r"^\w+"

text="Hello, World!"

match= re.match(pattern,text)

if match:

print("match found:",match.group())

else:

print("no match found.")

Output:

match found: Hello

Question 9- Write a RegEx pattern in python program that matches a word at the end of a string.

import re

pattern=r"\w+$"

text="Hello, World"

match= re.search(pattern,text)

if match:

print("match found:",match.group())

else:

print("no match found.")

output:

match found: world

Question 10- Write a RegEx pattern in python program to find all words that are 4 digits long in a string.

Sample text- '01 0132 231875 1458 301 2725.'

Expected output- ['0132', '1458', '2725']

import re

pattern=r"\b\d{4}\b"

text="'01 0132 231875 1458 301 2725"

matches=re.findall(pattern,text)

print("matches found", matches)

output:

matches found ['0132', '1458', '2725']