**Practice Quiz: Basic Regular Expressions**

1.Question 1

The check\_web\_address function checks if the text passed qualifies as a top-level web address, meaning that it contains alphanumeric characters (which includes letters, numbers, and underscores), as well as periods, dashes, and a plus sign, followed by a period and a character-only top-level domain such as ".com", ".info", ".edu", etc. Fill in the regular expression to do that, using escape characters, wildcards, repetition qualifiers, beginning and end-of-line characters, and character classes.

import re

def check\_web\_address(text):

  pattern = \_\_\_

  result = re.search(pattern, text)

  return result != None

print(check\_web\_address("gmail.com")) # True

print(check\_web\_address("www@google")) # False

print(check\_web\_address("www.Coursera.org")) # True

print(check\_web\_address("web-address.com/homepage")) # False

print(check\_web\_address("My\_Favorite-Blog.US")) # True

Solution:

2.Question 2

The check\_time function checks for the time format of a 12-hour clock, as follows: the hour is between 1 and 12, with no leading zero, followed by a colon, then minutes between 00 and 59, then an optional space, and then AM or PM, in upper or lower case. Fill in the regular expression to do that. How many of the concepts that you just learned can you use here?

import re

def check\_time(text):

  pattern = \_\_\_

  result = re.search(pattern, text)

  return result != None

print(check\_time("12:45pm")) # True

print(check\_time("9:59 AM")) # True

print(check\_time("6:60am")) # False

print(check\_time("five o'clock")) # False

Solution:

3.Question 3

The contains\_acronym function checks the text for the presence of 2 or more characters or digits surrounded by parentheses, with at least the first character in uppercase (if it's a letter), returning True if the condition is met, or False otherwise. For example, "Instant messaging (IM) is a set of communication technologies used for text-based communication" should return True since (IM) satisfies the match conditions." Fill in the regular expression in this function:

import re

def contains\_acronym(text):

  pattern = \_\_\_

  result = re.search(pattern, text)

  return result != None

print(contains\_acronym("Instant messaging (IM) is a set of communication technologies used for text-based communication")) # True

print(contains\_acronym("American Standard Code for Information Interchange (ASCII) is a character encoding standard for electronic communication")) # True

print(contains\_acronym("Please do NOT enter without permission!")) # False

print(contains\_acronym("PostScript is a fourth-generation programming language (4GL)")) # True

print(contains\_acronym("Have fun using a self-contained underwater breathing apparatus (Scuba)!")) # True

Solution:

4.Question 4

What does the "r" before the pattern string in re.search(r"Py.\*n", sample.txt) indicate?

1 point



Raw strings



Regex



Repeat



Result

5.Question 5

What does the plus character**[+]** do in regex?

1 point



Matches plus sign characters



 Matches one or more occurrences of the character before it



Matches the end of a string



Matches the character before the  **[+]**only if there is more than one

6.Question 6

Fill in the code to check if the text passed includes a possible U.S. zip code, formatted as follows: exactly 5 digits, and sometimes, but not always, followed by a dash with 4 more digits. The zip code needs to be preceded by at least one space, and cannot be at the start of the text.

import re

def check\_zip\_code (text):

  result = re.search(r"\_\_\_", text)

  return result != None

print(check\_zip\_code("The zip codes for New York are 10001 thru 11104.")) # True

print(check\_zip\_code("90210 is a TV show")) # False

print(check\_zip\_code("Their address is: 123 Main Street, Anytown, AZ 85258-0001.")) # True

print(check\_zip\_code("The Parliament of Canada is at 111 Wellington St, Ottawa, ON K1A0A9.")) # False

Solution: