Practice Quiz: Basic Regular Expressions

TOTAL POINTS 6

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. 1 point

```
import re
def check_web_address(text):
  pattern = r'^[\w\-\.\+]+(\.)[a-zA-Z]+$'
  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
```

Run
Reset

```
True
False
True
False
True
```

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? 1 point

```
import re
def check_time(text):
  pattern = r'^[1-9][0-2]?:[0-5][0-9] ?[AM|PM|am|pm]'
  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
```

Run
Reset

```
True
True
False
False
```

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: 1 point

```
import re
def contains_acronym(text):
  pattern = r"\([A-Z0-9][A-Za-z]*\)"
  result = re.search(pattern, text)
  return result != None

print(contains_acronym("Instant messaging (IM) is a set of communication tec
print(contains_acronym("American Standard Code for Information Interchange (
print(contains_acronym("Please do NOT enter without permission!")) # False
print(contains_acronym("PostScript is a fourth-generation programming langua
print(contains_acronym("Have fun using a self-contained underwater breathing
```

Run
Reset

```
True
True
False
True
True
```

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. 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. 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. 1 point

```
import re
def check_zip_code (text):
  result = re.search(r"\s\d{5}|[-]\d{4}[^0-9]", text)
  return result != None

print(check_zip_code("The zip codes for New York are 10001 thru 11104.")) #
print(check_zip_code("90210 is a TV show")) # False
print(check_zip_code("Their address is: 123 Main Street, Anytown, AZ 85258-0
print(check_zip_code("The Parliament of Canada is at 111 Wellington St, Otta
```

Run Reset

```
True
False
True
False
```

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