

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 / 1 point

```
1 import re
2 def check_web_address(text):
3     pattern = r"^[a-zA-Z0-9]*[\.US\.com\.org]$"
4     result = re.search(pattern, text)
5     return result != None
6
7 print(check_web_address("gmail.com")) # True
8 print(check_web_address("www@google")) # False
9 print(check_web_address("www.Coursera.org")) # True
10 print(check_web_address("web-address.com/homepage")) # False
11 print(check_web_address("My_Favorite-Blog.US")) # True
12
```

Run

Reset

True

False

True

✓ Correct

Right on! No bogus web address will get past you!

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 / 1 point

```
1 import re
2 def check_time(text):
3     pattern = r"1?[0-9]:[0-5][0-9]\s?[AaPp][mM]$"
4     result = re.search(pattern, text)
5     return result != None
6
7 print(check_time("12:45pm")) # True
8 print(check_time("9:59 AM")) # True
9 print(check_time("6:60am")) # False
10 print(check_time("five o'clock")) # False
```

Run

Reset

✓ Correct

You nailed it! It's "time" to celebrate!

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 / 1 point

```
1 import re
2 def contains_acronym(text):
3     pattern = r"\([A-Z0-9][A-Za-z0-9]*\)"
4     result = re.search(pattern, text)
5     return result != None
6
7 print(contains_acronym("Instant messaging (IM) is a set of communication technologie
8 print(contains_acronym("American Standard Code for Information Interchange (ASCII) i
9 print(contains_acronym("Please do NOT enter without permission!")) # False Run
10 print(contains_acronym("PostScript is a fourth-generation programming language (4GL)
11 print(contains_acronym("Have fun using a self-contained underwater breathing apparat
```

True

✓ **Correct**

Great job! Now that's real Personal Responsibility In Delivering Excellence (PRIDE)!

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

1 / 1 point

- ☒ Raw strings
- ☐ Regex
- ☐ Repeat
- ☐ Result

✓ **Correct**

Right on! "Raw" strings just means the Python interpreter won't try to interpret any special characters and, instead, will just pass the string to the function as it is.

5. What does the plus character `[+]` do in regex?

1 / 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

✓ Correct

Awesome! The plus character `[+]`, matches one or more occurrences of the character that comes before it.

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 / 1 point

```
1 import re
2 def check_zip_code (text):
3     result = re.search(r"[^a-zA-Z][0-9]{5}|[0-9]{4}[-]", text)
4     return result != None
5
6 print(check zip code("The zip codes for New York are 10001 thru 11104.")) # True
```

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 import re
2 def check_zip_code (text):
3     result = re.search(r"^[a-zA-Z][0-9]{5}|[0-9]{4}[-]", text)
4     return result != None
5
6 print(check_zip_code("The zip codes for New York are 10001 thru 11104.")) # True
7 print(check_zip_code("90210 is a TV show")) # False
8 print(check_zip_code("Their address is: 123 Main Street, Anytown, AZ 85258-0001."))
9 print(check_zip_code("The Parliament of Canada is at 111 Wellington St, Ottawa, ON K1R 0S5"))
```

Run

Reset

True
False
True
False

**Correct**

Woohoo! You're zipping through these regular expressions like a champ!