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CSC\_157\_Lab\_011\_QA

**1. Run these code statements and then list ten methods or properties that are returned.**

**import re  
print (dir(re))**

Printing Python’s `re` object returns the following:   
['A', 'ASCII', 'DEBUG', 'DOTALL', 'I', 'IGNORECASE', 'L', 'LOCALE', 'M', 'MULTILINE', 'Match', 'Pattern', 'RegexFlag', 'S', 'Scanner', 'T', 'TEMPLATE', 'U', 'UNICODE', 'VERBOSE', 'X', '\_MAXCACHE', '\_\_all\_\_', '\_\_builtins\_\_', '\_\_cached\_\_', '\_\_doc\_\_', '\_\_file\_\_', '\_\_loader\_\_', '\_\_name\_\_', '\_\_package\_\_', '\_\_spec\_\_', '\_\_version\_\_', '\_cache', '\_compile', '\_compile\_repl', '\_expand', '\_locale', '\_pickle', '\_special\_chars\_map', '\_subx', 'compile', 'copyreg', 'enum', 'error', 'escape', 'findall', 'finditer', 'fullmatch', 'functools', 'match', 'purge', 'search', 'split', 'sre\_compile', 'sre\_parse', 'sub', 'subn', 'template']

The CAPITALIZED items appear to be flags for modifying regex searches (e.g., IGNORECASE, LOCALE, MULTILINE, etc.) the underscore (e.g., \_\_spec and \_expand) appear to be private methods and properties, while public methods (findall, fullmatch, match, purge, search, split, etc.) are listed near the end.

**2. Explain how pickling is used in this application.**

Pickling is used in this application to dump a binary stream of a text string into .pickle files and then unload those pickle files back into strings. It’s unnecessary in this application, as we are not mutating the data in anyway and there is no reason to perserve the data in secondary storage. Everything takes place in RAM during run time.

**3. Determine the output of this code segment.**

**msg = "dept 32, code 300; type 43"**

**pattern = "\d+"**

**result = re.findall(pattern, msg)  
print (result)**

This regex matches any digit character, and finding one or more (+) of digit characters, and appends them to a list: ['32', '300', '43']

**4. Determine the output of this code segment.**

**msg = "tunnel entrance"**

**chkMatch = re.search("\Atunnel", msg)**

**if (chkMatch) :**

**print ("a pattern was found inside the string")**

**else :**

**print ("a pattern was not found")**

Output: a pattern was found inside the string

**5. What have you learned from performing and coding for this lab assignment?**

Learned about Python’s `re` library, and refreshed my knowledge of regex.