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Assignment2

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
text = "python 2 is super easy"
result = re.findall("\w",text)
print (result)

['p', 'y', 't', 'h', 'o', 'n', '2', 'i', 's', 's', 'u', 'p', 'e', 'r', 'e', 'a', 's', 'y']
```

or

```
import re
text = "python 2 is super easy"
result = re.findall("\w+",text)
print (result)
```

output:

```
['python', '2', 'is', 'super', 'easy']
```

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

Answer:

```
import re
pattern = r"^a(b*)$"
text = "a"
match = re.search(pattern,text)
print(match)
```

output:

```
<re.Match object; span=(0, 1), match='a'>
```

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"^a(b+)$"
```

```
text = "abbbb"
```

```
match = re.search(pattern,text)
```

```
print(match)
```

output:

```
<re.Match object; span=(0, 5), match='abbbb'>
```

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?$"
```

```
text = "ab"
```

```
match = re.search(pattern,text)
```

```
print(match)
```

output:

```
<re.Match object; span=(0, 2), match='ab'>
```

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})$"
```

```
text = "abbb"
```

```
match = re.search(pattern,text)
```

```
print(match)
```

output:

```
<re.Match object; span=(0, 4), match='abbb'>
```

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})$"
text = "abb"
match = re.search(pattern,text)
print(match)
```

output:

```
<re.Match object; span=(0, 3), match='abb'>
```

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$"
text = "ahmadkhankhwab"
match = re.search(pattern,text)
print(match)
```

output:

```
<re.Match object; span=(0, 14), match='ahmadkhankhwab'>
```

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

Answer:

```
string= "python is super easy if you do practice of it"
find = re.search("^python.*",string)
print (find)
```

output:

```
<re.Match object; span=(0, 45), match='python is super easy if you do practice of it'>
```

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

Answer:

```
string= "python is super easy if you do practice of it"
```

```
find = re.search("^.*it$",string)
```

```
print (find)
```

output:

```
<re.Match object; span=(0, 45), match='python is super easy if you do practice of it'>
```

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']

Answer:

```
text = "'01 0132 231875 1458 301 2725'"
```

```
result=re.findall(r"\w{4}",text)
```

```
print(result)
```

output:

```
['0132', '2318', '1458', '2725']
```
