

## Regular Expression Practice Questions

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).

### Solution

```
target_string='Research on eHealth in LMICs by Lewis et al 2005 VoIP hotline internet 2030'

pattern=re.findall(r'[a-zA-Z0-9]+',target_string)

print (pattern)

['Research', 'on', 'eHealth', 'in', 'LMICs', 'by', 'Lewis', 'et', 'al', '2005', 'VoIP', 'hotline', 'internet', '2030']
```

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

### Solution

```
target_string='abbbbc a a0b abb'

pattern=re.search(('ab*'),target_string)

print (pattern)

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

Question 3- Write a RegEx pattern that matches a string that has an a followed by one or more b's

### Solution

```
target_string='abbc a a0b abb'

pattern=re.search(('ab+'),target_string)

print (pattern)

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

Question 4- Write a RegEx pattern that matches a string that has an a followed by zero or one 'b'.

**Solution**

```
target_string='abbc a a0b abb'
```

```
pattern=re.search(('ab'),target_string)
```

```
print (pattern)
```

```
<regex.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'.

**Solution**

```
target_string='abbc a a0b abbb'
```

```
pattern=re.search(('ab{3}'),target_string)
```

```
print (pattern)
```

```
<regex.Match object; span=(11, 15), 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'.

**Solution**

```
target_string='abbc a a0b abbb'
```

```
pattern=re.search(('ab{2,3}'),target_string)
```

```
print (pattern)
```

```
<regex.Match object; span=(11, 15), match='abbb'>
```

Question 7- Write a Python program that matches a string that has an 'a' followed by anything, ending in 'b'.

**Solution**

```
target_string='abbc a a0b abbb'
```

```
pattern=re.search(('^a.*b?$'),target_string)
```

```
print (pattern)
```

```
<regex.Match object; span=(0, 15), match='abbc a a0b abbb'>
```

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

**Solution**

```
target_string='Research on eHealth in LMICs by Lewis et al 2005 VoIP hotline internet 2030'
```

```
pattern=re.search(r'^\w+',target_string)
```

```
print(pattern)
```

```
<regex.Match object; span=(0, 8), match='Research'>
```

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

**Solution**

```
target_string='Research on eHealth in LMICs by Lewis et al 2005 VoIP hotline internet'
```

```
pattern=re.search(r'\w+$',target_string)
```

```
print(pattern)
```

```
<regex.Match object; span=(62, 70), match='internet'>
```

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']

**Solution**

```
target_string='01 0132 231875 1458 301 2725'
```

```
pattern=re.findall(r'\b\w{4}\b',target_string)
```

```
print(pattern)
```

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