**1.** Write a Python program to check that a string contains only a certain set of characters (in this case a-z, A-Z and 0-9).

**2.** Write a Python program that matches a string that has an a followed by zero or more b's.

**3.** Write a Python program that matches a string that has an a followed by one or more b's.

**4.** Write a Python program that matches a string that has an a followed by zero or one 'b'.

**5.** Write a Python program that matches a string that has an a followed by three 'b'.

**6.** Write a Python program that matches a string that has an a followed by two to three 'b'.

**7.** Write a Python program to find sequences of lowercase letters joined with a underscore.

**8.** Write a Python program to find the sequences of one upper case letter followed by lower case letters.

**9.** Write a Python program that matches a string that has an 'a' followed by anything, ending in 'b'.

**10.** Write a Python program that matches a word at the beginning of a string.

**11.** Write a Python program that matches a word at the end of string, with optional punctuation.

**12.** Write a Python program that matches a word containing 'z'.

**13.** Write a Python program that matches a word containing 'z', not at the start or end of the word.

**14.** Write a Python program to match a string that contains only upper and lowercase letters, numbers, and underscores.

**15.** Write a Python program where a string will start with a specific number.

**16.** Write a Python program to remove leading zeros from an IP address.

**17.** Write a Python program to check for a number at the end of a string.

**18.** Write a Python program to search the numbers (0-9) of length between 1 to 3 in a given string.

"Exercises number 1, 12, 13, and 345 are important"

**19.** Write a Python program to search some literals strings in a string.   
Sample text : 'The quick brown fox jumps over the lazy dog.'  
Searched words : 'fox', 'dog', 'horse'

**20.** Write a Python program to search a literals string in a string and also find the location within the original string where the pattern occurs.

Sample text : 'The quick brown fox jumps over the lazy dog.'  
Searched words : 'fox'

**21.** Write a Python program to find the substrings within a string.

**Sample text :**

'Python exercises, PHP exercises, C# exercises'

**Pattern :**

'exercises'

Note: There are two instances of exercises in the input string.

**22.** Write a Python program to find the occurrence and position of the substrings within a string.

**23.** Write a Python program to replace whitespaces with an underscore and vice versa.

**24.** Write a Python program to extract year, month and date from an url.

**25.** Write a Python program to convert a date of yyyy-mm-dd format to dd-mm-yyyy format.

**26.** Write a Python program to match if two words from a list of words starting with letter 'P'.

**27.** Write a Python program to separate and print the numbers of a given string.

**28.** Write a Python program to find all words starting with 'a' or 'e' in a given string.

**29.** Write a Python program to separate and print the numbers and their position of a given string.

**30.** Write a Python program to abbreviate 'Road' as 'Rd.' in a given string.

**31.** Write a Python program to replace all occurrences of space, comma, or dot with a colon.

**32.** Write a Python program to replace maximum 2 occurrences of space, comma, or dot with a colon.

**33.** Write a Python program to find all five characters long word in a string.

**34.** Write a Python program to find all three, four, five characters long words in a string.

**35.** Write a Python program to find all words which are at least 4 characters long in a string.

**36.** Write a python program to convert camel case string to snake case string.

**37.** Write a python program to convert snake case string to camel case string.

**38.** Write a Python program to extract values between quotation marks of a string.

**39.** Write a Python program to remove multiple spaces in a string.

**40.** Write a Python program to remove all whitespaces from a string.

**41.** Write a Python program to remove everything except alphanumeric characters from a string.

**42.** Write a Python program to find urls in a string.

**43.** Write a Python program to split a string at uppercase letters.

**44.** Write a Python program to do a case-insensitive string replacement.