In [1]:
```
# Q1. How can we store a single quote (‘) as a string in a variable ?


# we can store a single quote as a string value in python in two types

# using single quote & escape character

single_quote_1 = '\''

print (single_quote_1)

# using double quotes

single_quote_2 = "'"

print (single_quote_2)
```

```
'
'
```

In [ ]:
```
# Q2 Refer the below variable : x = 'a' Here, is x a character type or str1ng type variable? Support your answer w1th an explanation.

# Based on the given information, the variable "x" is a character type or string type variable.
# In Python, a single character is considered a string of length 1. Therefore, when the variable "x" is assigned the value 'a', it represents a string containing a single character
```

In [2]:
```
# Q3 Apply the following functions on this variable: ‘Welcome to Python foundation course'
# 1. find()
# 2. count()
# 3. len()
# 4. Concatenation
# Note: You can use your choice of parameters. But make sure it is correct.


string = 'Welcome to Python foundation course'
index = string.find('Python')
print(index)


string = 'Welcome to Python foundation course'
count = string.count('o')
print(count)


string = 'Welcome to Python foundation course'
length = len(string)
print(length)


string1 = 'Welcome to '
string2 = 'Python foundation course'
result = string1 + string2
print(result)
```

```
11
6
35
Welcome to Python foundation course
```

In [3]:
```
# Q4 For the variable: word= ‘PanaJi@12256
# Calculate the following:
# (a) Total number of alphabets in lowercase
# (b) Total number of alphabets in uppercase
# (c) Total number of numer1cal in str1ng

word = 'PanaJi@12256'

lowercase_count = 0
uppercase_count = 0
numeric_count = 0

for char in word:
    if char.islower():
        lowercase_count += 1
    elif char.isupper():
        uppercase_count += 1
    elif char.isnumeric():
        numeric_count += 1

print("Total number of lowercase alphabets:", lowercase_count)
print("Total number of uppercase alphabets:", uppercase_count)
print("Total number of numerical digits:", numeric_count)
```

```
Total number of lowercase alphabets: 4
Total number of uppercase alphabets: 2
Total number of numerical digits: 5
```

In [4]:
```
# Q5 Wr1te a co e to store a numer1cal value 1nsi e a variable then convert it into string.

# Storing a numerical value in a variable
number = 42

# Converting the numerical value to a string
number_as_string = str(number)

# Checking the data types
print("Number variable type:", type(number))
print("Number as string variable type:", type(number_as_string))
```

```
Number variable type: <class 'int'>
Number as string variable type: <class 'str'>
```

In [ ]:
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