How do you find the length of a string in Python without using len()?

How do you convert a string to uppercase without using upper()?

```
D V
         def to_upper(alpha):
             result = ''
             for char in alpha:
                 if 'a' <= char <= 'z':
                     result += chr(ord(char) - 32)
                 else:
                     result += char
             return result
        to_upper('nikesh')
[3]
                                                                                          Python
     'NIKESH'
```

How do you convert a string to lowercase without using lower()?

```
D ~
        def to_lower(strings):
             result = ''
             for char in strings:
                 if 'A' <= char <= 'Z':
                     result += chr(ord(char) + 32)
                 else:
                     result += char
             return result
        to_lower('NikeSH')
[4]
                                                                                          Python
     'nikesh'
```

How do you replace a substring in a string without using replace()?

```
def replace_strings(strings,old,new):
            result = ''
            i = 0
            while i in range(len(strings)):
                if strings[i:i+ len(old)]== old:
                    result +=new
                     i += len(old)
                else:
                    result += strings[i]
                     i += 1
            return result
        replace_strings('Hello python how are you', 'python', 'Nikesh')
[23]
                                                                                         Python
```

··· 'Hello Nikesh how are you'

How do you check if a string starts with a certain substring without using startswith()?

```
def check_start_with(string, substring):
    if len(substring) > len(string):
        return False
        for i in range(len(substring)):
            if string[i] != substring[i]:
                return False
        return True
        check_start_with('Hello Nikesh', 'Hello')

[30]

Python
```

·· True

How do you check if a string ends with a certain substring without using endswith()?

```
def check_end_with(string,end_string):
    if len(string) < len(end_string):
        return False
    start = len(string) - len(end_string)
    for i in range(len(end_string)):
        if string[start+i] != end_string[i]:
            return False
        return True

check_end_with('Hello Nikesh','Nikesh')

Python</pre>
```

[4]

· True

How do you split a string by spaces without using split()?

[10]

```
def split_space(string):
       result = []
       word = ''
       for char in string:
           if char == ' ':
               if word:
                   result.append(word)
                   word = "
           else:
               word +=char
       if word:
           result.append(word)
       return result
   split_space('Nikesh Kumar Singh')
                                                                                   Python
['Nikesh', 'Kumar', 'Singh']
```

How do you join a list of strings into a single string without using join()?

```
def join_string(words):
    result = ''
    for i in range(len(words)):
        result += words[i]
        if i < len(words) -1:
            result += ''
        return result

join_string(['apple mango banana'])

[17]</pre>
Python
```

··· 'apple mango banana'

How do you find the position of a substring in a string without using find()

```
def find_substring_position(string1, substring):
    for i in range(len(string1)-len(substring)+1):
        if string1[i:i + len(substring)] == substring:
            return i
        return -1

find_substring_position('nikesh singh','sh')

Python
```

swap upper to lower and lower to upper

```
def swapcase(string):
    result =''
    for char in string:
        if 'a' <= char <= 'z':
            result += chr(ord(char)-32)
        elif 'A' <= char <= 'Z':
            result += chr(ord(char) + 32)
        else:
            result += char
    return result
swapcase('NikESh')
                                                                                Python
```

[19]

'nIKesH'

Remove all spaces

Check if String is Numeric

Reverse a String

Capitalize First Letter