Q1) Print the postive index of each letter

```
In [71]:  str1="hellow how are you."
          for i in range(len(str1)):
              print(f"the positive index of {str1[i]} is {i}." )
```

```
the positive index of h is 0.
the positive index of e is 1.
the positive index of l is 2.
the positive index of l is 3.
the positive index of o is 4.
the positive index of w is 5.
the positive index of   is 6.
the positive index of h is 7.
the positive index of o is 8.
the positive index of w is 9.
the positive index of   is 10.
the positive index of a is 11.
the positive index of r is 12.
the positive index of e is 13.
the positive index of   is 14.
the positive index of y is 15.
the positive index of o is 16.
the positive index of u is 17.
the positive index of . is 18.
```

Q2) Print the negative index of each letter

```
In [80]:  str1="hellow how are you."
          for i in range(len(str1)):
              print(f"the negative index of {str1[i]} is {i-len(str1)}")
```

```
the negative index of h is -19
the negative index of e is -18
the negative index of l is -17
the negative index of l is -16
the negative index of o is -15
the negative index of w is -14
the negative index of   is -13
the negative index of h is -12
the negative index of o is -11
the negative index of w is -10
the negative index of   is -9
the negative index of a is -8
the negative index of r is -7
the negative index of e is -6
the negative index of   is -5
the negative index of y is -4
the negative index of o is -3
the negative index of u is -2
the negative index of . is -1
```

Q3) Print the postive and negative index of each letter

```
In [81]: str1="hellow how are you."
         for i in range(len(str1)):
             print(f"the positive index of {str1[i]} is {i}. and the negative index of {str1
```

```
the positive index of h is 0. and the negative index of h is -19
the positive index of e is 1. and the negative index of e is -18
the positive index of l is 2. and the negative index of l is -17
the positive index of l is 3. and the negative index of l is -16
the positive index of o is 4. and the negative index of o is -15
the positive index of w is 5. and the negative index of w is -14
the positive index of   is 6. and the negative index of   is -13
the positive index of h is 7. and the negative index of h is -12
the positive index of o is 8. and the negative index of o is -11
the positive index of w is 9. and the negative index of w is -10
the positive index of   is 10. and the negative index of   is -9
the positive index of a is 11. and the negative index of a is -8
the positive index of r is 12. and the negative index of r is -7
the positive index of e is 13. and the negative index of e is -6
the positive index of   is 14. and the negative index of   is -5
the positive index of y is 15. and the negative index of y is -4
the positive index of o is 16. and the negative index of o is -3
the positive index of u is 17. and the negative index of u is -2
the positive index of . is 18. and the negative index of . is -1
```

Q4) Wap ask to print the index of all 'a' in a given string.

```
In [84]: str2="hello anand, how are you."
         for i in range(len(str2)):
             if str2[i]=='a':
                 print(f"the index of {str2[i]} is {i}.")
```

```
the index of a is 6.
the index of a is 8.
the index of a is 17.
```

Q5) Wap ask to print the number of 'a's in a given string

```
In [86]: str2="hello anand, how are you?"
         count=0
         for i in str2:
             if i=='a':
                 #print(i)
                 count=count+1
         print(f"the total number of {count}.")
```

```
the total number of 3.
```

Q6) Wap ask to print the sum of the index of all 'a' in a given string

```
In [87]: summ=0
         str2="hello anand, how are you?"
         for i in str2:
             if i=='a':
                 print(i)
                 summ=summ+1
```

```
print(f"the sum of a in string is {summ}")
```

```
a
a
a
the sum of a in string is 3
```

Q7) Wap to find the vowels in a given string

In [91]:
```python
str2="hello anand, how are you?"
for i in range(len(str2)):
    if str2[i] in "aeiou":
        print(str2[i],end=' ')
```

```
e o a a o a e o u
```

Q8) wap to find the number of vowels in a given string

In [95]:
```python
str2="hello anand, how are you?"
count=0
for i in range(len(str2)):
    if str2[i] in "aeiou":
        count=count+1
print(f"the total number of vowels is {count}.")
```

```
the total number of vowels is 9.
```

Q9) wap to find the indexes of vowels in a given string

In [94]:
```python
str2="hello anand, how are you?"
for i in range(len(str2)):
    if str2[i] in "aeiou":
        print(f" the index of vowel {str2[i]} is {i}.")
```

```
the index of vowel e is 1.
the index of vowel o is 4.
the index of vowel a is 6.
the index of vowel a is 8.
the index of vowel o is 14.
the index of vowel a is 17.
the index of vowel e is 19.
the index of vowel o is 22.
the index of vowel u is 23.
```

Q10) wap to find the sum of the indexes of vowels in a given string

In [96]:
```python
str2="hello anand, how are you?"
summ=0
for i in range(len(str2)):
    if str2[i] in "aeiou":
        #print(i,str2[i])
        summ=summ+1
print(f" the sum of vowel is {summ}.")
```

```
the sum of vowel is 9.
```

Q11) wap to find the unique vowels in a given string

In [113...

```python
str2="hello anand, how are you?"
vowel = "aeoui"
unique = set()
for i in str2:
    for j in vowel:
        if j == i:
            unique.add(j)
```

In [114...

```python
unique
```

Out[114...

```
{'a', 'e', 'o', 'u'}
```