**Code**

vowel = ['a', 'e', 'i', 'o', 'u']

word = input("Enter a word: ")

count = 0

char = []

for character in word:

if character not in vowel:

char.append(character)

count += 1

print(f"Consonants count in the word is {count} and the consonants are {char}")

**1. Initialize the Vowel List**

vowel = ['a', 'e', 'i', 'o', 'u']

* A list of vowels (a, e, i, o, u) is created.
* This list will be used to check if a character in the word is a vowel or not.

**2. Take Input from the User**

word = input("Enter a word: ")

* The program prompts the user to enter a word.
* For example, if the user enters "hello", then word = "hello".

**3. Initialize Variables**

count = 0

char = []

* count is set to 0. It will be used to count the consonants.
* char is an empty list. It will store all the consonants from the input word.

**4. Loop Through Each Character in the Word**

for character in word:

* The loop iterates through each character in the word entered by the user.

**5. Check if the Character is Not a Vowel**

if character not in vowel:

* For each character in the word:
  + The program checks if the character is NOT in the vowel list.
  + If it’s not a vowel, the character is a consonant.

**6. Add the Consonant to the List**

char.append(character)

* If the character is a consonant, it is added to the char list.

**7. Increment the Consonant Count**

count += 1

* For each consonant found, the count variable is incremented by 1.

**8. Print the Results**

print(f"Consonants count in the word is {count} and the consonants are {char}")

* After the loop ends:
  + The total count of consonants is printed using the count variable.
  + The consonants themselves are printed using the char list.

**Example Walkthrough**

Let’s walk through the program with an example input:

**Input:**

Enter a word: hello

**Step-by-Step Execution:**

1. **Initial Values:**
   * vowel = ['a', 'e', 'i', 'o', 'u']
   * word = "hello"
   * count = 0
   * char = []
2. **First Iteration (character = 'h'):**
   * 'h' not in vowel → True (it's a consonant).
   * Add 'h' to char → char = ['h'].
   * Increment count → count = 1.
3. **Second Iteration (character = 'e'):**
   * 'e' not in vowel → False (it's a vowel).
   * Skip this character.
4. **Third Iteration (character = 'l'):**
   * 'l' not in vowel → True (it's a consonant).
   * Add 'l' to char → char = ['h', 'l'].
   * Increment count → count = 2.
5. **Fourth Iteration (character = 'l'):**
   * 'l' not in vowel → True (it's a consonant).
   * Add 'l' to char → char = ['h', 'l', 'l'].
   * Increment count → count = 3.
6. **Fifth Iteration (character = 'o'):**
   * 'o' not in vowel → False (it's a vowel).
   * Skip this character.
7. **Final Values:**
   * count = 3
   * char = ['h', 'l', 'l']

**Output:**

Consonants count in the word is 3 and the consonants are ['h', 'l', 'l']