

hw1

October 5, 2025

Homework Questions:

1. Write a program that takes a word as an input and print the number of vowels in the word.

```
[4]: def vowel_num(word):  
    vowels = ['a', 'o', 'i', 'u', 'e']  
    vowel_num = 0  
    for letter in word:  
        if letter in vowels:  
            vowel_num += 1  
    return vowel_num  
  
print("cable has", vowel_num("cable"), "vowels.")
```

cable has 2 vowels.

2. Iterate through the following list of animals and print each one in all caps.

animals=['tiger', 'elephant', 'monkey', 'zebra', 'panther']

```
[5]: def capitalize(word):  
    cap_word = ''  
    for letter in word:  
        cap_word += letter.upper()  
    return cap_word  
  
animals=['tiger', 'elephant', 'monkey', 'zebra', 'panther']  
for word in animals:  
    print(capitalize(word))
```

TIGER
ELEPHANT
MONKEY
ZEBRA
PANTHER

3. Write a program that iterates from 1 to 20, printing each number and whether it's odd or even.

```
[7]: def iterate_print_determine_oddity(number):  
    for num in range(number):
```

```

        if ((num + 1) % 2 == 0):
            print(num + 1, "is even.")
        else:
            print(num + 1, "is odd.")
iterate_print_determine_oddity(20)

```

```

1 is odd.
2 is even.
3 is odd.
4 is even.
5 is odd.
6 is even.
7 is odd.
8 is even.
9 is odd.
10 is even.
11 is odd.
12 is even.
13 is odd.
14 is even.
15 is odd.
16 is even.
17 is odd.
18 is even.
19 is odd.
20 is even.

```

|4. Write a program to check if a string is a palindrome or not.

```

[10]: def detemine_palindrome(word):
        for num in range(len(word)):
            if (word[num] != word[-1-num]):
                return False
        return True
print("aba", "is palindrom?", detemine_palindrome("aba"))
print("cap", "is palindrome?", detemine_palindrome("cap"))

```

```

aba is palindrom? True
cap is palindrome? False

```

```

[ ]:

```