Question 6 Python

In [18]:
```
def pig(w):
    v = "aeiou"
    w = w.lower()
    if w[0] in v:
        return w + "way"
    else:
        return w[1:] + w[0] + "ay"
```

In [19]:
```
pig("happy")
```

Out[19]:
```
'appyhay'
```

In [20]:
```
pig("Enter")
```

Out[20]:
```
'enterway'
```

Question 7 Python

In [24]:
```
def bldcount(file_name):
    blood_typ = ['A', 'B', 'AB', 'O', 'OO']
    blood_ct = {bt: 0 for bt in blood_typ}
    #starting two variable to store the values

    with open(file_name, 'r') as file:
        #opening a file to read the file_name.txt
        for line in file:
            print(line)
            blood_type = line.split(" ")
            #print(blood_type)
            for i in blood_type:
                if i in blood_typ:
                    blood_ct[i] += 1

    for blood_type, count in blood_ct.items():
        #printing the conditional values if count =0,1 or else
        if count == 0:
            print(f'There are no patients of blood type {blood_type}.')
        elif count == 1:
            print(f'There is one patient of blood type {blood_type}.')
        else:
            print(f'There are {count} patients of blood type {blood_type}.')

bldcount('bloodtype1.txt')
```

```
There are 15 patients of blood type A.
There is one patient of blood type B.
There are 13 patients of blood type AB.
There are 15 patients of blood type O.
There are no patients of blood type OO.
```

Question 8 Python

In [25]:
```
#storing the current values in json file
EXCHANGE_RATES = {
    "USD": 1.0345157,
    "EUR": 1.0237414,
    "JPY": 0.1550176,
    "DKK": 0.1651442,
    "EUR" :1.2296544,
    "GBP" :15550989,
    "HKD": 0.1270207,
    "INR": 0.0177643,
    "JPY": 0.01241401,
    "MXN": 0.0751848,
    "MYR": 0.3145411,
    "NOK": 0.1677063,
    "NZD": 0.8003591,
    "PHP": 0.0233234,
    "SEK": 0.148269,
    "SGD": 0.788871,
    "THB": 0.0313789
    }
#will try to calculate the values using current values
def curconv(currency, amt):
    exch_rate = EXCHANGE_RATES.get(currency, None)
    if exch_rate is None:
        raise ValueError(f"Unsupported currency: {currency}")
    return amt * exch_rate
```

In [26]:
```
curconv('EUR', 100)
```

Out[26]:
```
122.96544
```

In [27]:
```
curconv('JPY', 100)
```

Out[27]:
```
1.241401
```

Question 9 Python

In [28]:
```
#1.Trying to add incompatible variables:
try:
    print(6 + 'a')
except TypeError as e:
    print("Exception:", e)

#2.Referring to the 12th item of a list that has only 10 items:
#lets we have a list values ranging from 1 to 10
list = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
try:
    print(list[11])
except IndexError as e:
    print("Exception:", e)

#3.Using a value that is out of range for a function's input:
#using import math function
import math
try:
    print(math.sqrt(-1.0))
except ValueError as e:
```

```
    print("Exception:", e)

#4.Using an undeclared variable:

try:
    print(x)
except NameError as e:
    print("Exception:", e)

#5.Trying to open a file that does not exist:

try:
    f = open("file_that_does_not_exist.txt")
except FileNotFoundError as e:
    print("Exception:", e)
```

```
Exception: unsupported operand type(s) for +: 'int' and 'str'
Exception: list index out of range
Exception: math domain error
Exception: name 'x' is not defined
Exception: [Errno 2] No such file or directory: 'file_that_does_not_exist.txt'
```

Question 10 Python

In [34]:

```
def frequencies(txt):
    #storing the data into a variable so we can use it further
    l = 'abcdefghijklmnopqrstuvwxyz'
    l_counts = [0] * 26
    txt = txt.lower()
    for char in txt:
        if char in l:
            l_counts[l.index(char)] += 1
    return l_counts
#coiuint the frequesncy andlet the code to priunt the count of each char
print(frequencies('The quick red fox got bored and went home.'))
print(frequencies('apple'))
```

```
[1, 1, 1, 3, 5, 1, 1, 2, 1, 0, 1, 0, 1, 2, 4, 0, 1, 2, 0, 3, 1, 0, 1, 1, 0, 0]
[1, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 2, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0]
```

In [ ]: