Hawaiian Words

Hawaiian words can be intimidating to attempt to pronounce. Words like humuhumunukunukuapua'a look like someone may have fallen asleep on the keyboard. The language is actually very simple and only contains 12 characters; 5 vowels and 7 consonants. We are going to write a program that allows the user to enter a hawaiian word and give the pronunciation of the word or words as output.

Requirements

● The program should validate that the word given by the user only has valid Hawaiian characters. Spaces and the apostrophe (') are valid as well.

● If a word is not valid, warn the user about offending characters and prompt for a hawaiian word again.

● Spaces are breaks for words and should be kept intact.

● The apostrophe is a hard stop, and should be kept in the word. A word with a'i is pronounced ah'ee. Without the apostrophe it would be eye.

● Ask the user if they want to do another word. Valid responses are Y, YES, N or NO. If they want to play more, then they can enter another hawaiian word. If no, then the program ends.

In [1]:
```python
validChars = ['a', 'e', 'i', 'o', 'u', 'p', 'k', 'h', 'l', 'm', 'n', 'w']
vowels = {
    'a': 'ah',
    'e': 'eh',
    'i': 'ee',
    'o': 'oh',
    'u': 'oo'
}
vowelGroup = {
    'ai': 'eye',
    'ae': 'eye',
    'ao': 'ow',
    'au': 'ow',
    'ei': 'ay',
    'iu': 'ew',
    'oi': 'oy',
    'ou': 'ow',
    'ui': 'ooey'
}
```

In [9]:
```python
# We will write a function and use it again and again inside a while loop
```

In [10]:
```python
def isHawaiian(s):
```

```python
        s = s.lower()
        i = 0
        res = ""
        while i < len(s):
            partialEnd = '-'
            if s[i] in [' ', "'"]:
                res = res + s[i]
            elif s[i] not in validChars:
                res = s[i] + ' is not a valid hawaiian character'
                return res
            elif i + 1 < len(s) and s[i] in vowels.keys() and s[i+1] in vowels.keys() and s
                if i + 2 == len(s) or s[i + 2] == ' ':
                    partialEnd = ''
                res = res + vowelGroup[s[i] + s[i+1]] + partialEnd
                i = i + 1
            elif s[i] in vowels.keys():
                if i + 1 == len(s) or s[i + 1] == ' ':
                    partialEnd = ''
                res = res + vowels[s[i]] + partialEnd
            elif s[i] == 'w':
                if i - 1 >= 0 and s[i-1] in ['i', 'e']:
                    res = res + 'v'
                else:
                    res = res + s[i]
            else:
                res = res + s[i]
            i = i + 1
        res = res.capitalize()
        return s.upper() + ' is pronounced as ' + res
```

In [13]:
```python
conditional = 'Y'
while conditional.lower() in ['y', 'yes']:
    print('\n')
    s1 = input('Enter a hawaiian word to prounounce ==> ')
    print(isHawaiian(s1))
    conditional = input('Do you want to enter another word? Y/YES/N/NO ==> ')
```

```
Enter a hawaiian word to prounounce ==> invalid
v is not a valid hawaiian character
Do you want to enter another word? Y/YES/N/NO ==> y


Enter a hawaiian word to prounounce ==> aloha
ALOHA is pronounced as Ah-loh-hah
Do you want to enter another word? Y/YES/N/NO ==> y


Enter a hawaiian word to prounounce ==> humuhumunukunukuapua'a
HUMUHUMUNUKUNUKUAPUA'A is pronounced as Hoo-moo-hoo-moo-noo-koo-noo-koo-ah-poo-ah-'ah
Do you want to enter another word? Y/YES/N/NO ==> y


Enter a hawaiian word to prounounce ==> Kakahiaka
KAKAHIAKA is pronounced as Kah-kah-hee-ah-kah
Do you want to enter another word? Y/YES/N/NO ==> y
```

```
Enter a hawaiian word to prounounce ==> Mahalo
MAHALO is pronounced as Mah-hah-loh
Do you want to enter another word? Y/YES/N/NO ==> y


Enter a hawaiian word to prounounce ==> E komo mai
E KOMO MAI is pronounced as Eh koh-moh meye
Do you want to enter another word? Y/YES/N/NO ==> y


Enter a hawaiian word to prounounce ==> maui
MAUI is pronounced as Mow-ee
Do you want to enter another word? Y/YES/N/NO ==> y


Enter a hawaiian word to prounounce ==> kane
KANE is pronounced as Kah-neh
Do you want to enter another word? Y/YES/N/NO ==> y


Enter a hawaiian word to prounounce ==> HOALOHA
HOALOHA is pronounced as Hoh-ah-loh-hah
Do you want to enter another word? Y/YES/N/NO ==> y


Enter a hawaiian word to prounounce ==> makua
MAKUA is pronounced as Mah-koo-ah
Do you want to enter another word? Y/YES/N/NO ==> y


Enter a hawaiian word to prounounce ==> keikikane
KEIKIKANE is pronounced as Kay-kee-kah-neh
Do you want to enter another word? Y/YES/N/NO ==> y


Enter a hawaiian word to prounounce ==> humuhumunukunukuapua'a
HUMUHUMUNUKUNUKUAPUA'A is pronounced as Hoo-moo-hoo-moo-noo-koo-noo-koo-ah-poo-ah-'ah
Do you want to enter another word? Y/YES/N/NO ==> y


Enter a hawaiian word to prounounce ==> keiki
KEIKI is pronounced as Kay-kee
Do you want to enter another word? Y/YES/N/NO ==> y


Enter a hawaiian word to prounounce ==> Hoaloha
HOALOHA is pronounced as Hoh-ah-loh-hah
Do you want to enter another word? Y/YES/N/NO ==> y


Enter a hawaiian word to prounounce ==> kaiapuni
KAIAPUNI is pronounced as Keye-ah-poo-nee
Do you want to enter another word? Y/YES/N/NO ==> y


Enter a hawaiian word to prounounce ==> wahine
WAHINE is pronounced as Wah-hee-neh
Do you want to enter another word? Y/YES/N/NO ==> y
```

```
Enter a hawaiian word to prounounce ==> iwa
IWA is pronounced as Ee-vah
Do you want to enter another word? Y/YES/N/NO ==> y


Enter a hawaiian word to prounounce ==> Huaai
HUAAI is pronounced as Hoo-ah-eye
Do you want to enter another word? Y/YES/N/NO ==> n
```

In [ ]: