SWIFT: THE LANGUAGE OF IOS DEVELOPMENT

Section 8 Exercise

```
1  import UIKit
2
3  var poem = """
4  With Rue My Heart is Laden
5  By AE Houseman
6
7  With rue my heart is laden'
8  For Golden friends I had,
9  For many a rose-lipt maiden
10 And many a lightfoot lad.
11
12 By brooks too broad for leaping
13 The lightfoot bous are laid;
14 The rose-lipt girls are sleeping
15 In fields where roses fade.
   """
17
```

1. Create a new playground file and title it **Section 8.playground**.

2. Enter the code appearing on the left.

```
Wxth Rxx My Hxxrt xs Lxdxn
By XX Hxxsxmxn

Wxth rxx my hxxrt xs lxdxn'
Fxr Gxldxn frxxnds X hxd,
Fxr mxny x rxsx-lxpt mxxdxn
Xnd mxny x lxghtfxxt lxd.

By brxxks txx brxxd fxr lxxpxng
Thx lxghtfxxt bxxs xrx lxxd;
Thx rxsx-lxpt gxrls xrx slxxpxng
Xn fxxlds whxrx rxsxs fxdx.
```

3. Write code that would generate the output on the left. The program should loop through the string poem and replace all the uppercase capital letters with 'X' and the lowercase capital letters with 'x' and then output the new version of the poem.

```swift
import UIKit

var poem = """
With Rue My Heart is Laden
By AE Houseman

With rue my heart is laden'
For Golden friends I had,
For many a rose-lipt maiden
And many a lightfoot lad.

By brooks too broad for leaping
The lightfoot bous are laid;
The rose-lipt girls are sleeping
In fields where roses fade.
"""

let numCharacters = poem.count
var x = 0
var newPoem = ""
while(x < numCharacters){
    let currentIndex = poem[poem.index(poem.startIndex, offsetBy: x)]
    switch currentIndex{
        case "A":
        newPoem += "X"
        break
        case "E":
        newPoem += "X"
        break
        case "I":
```

SOLUTION
Part 1

```
30          case "I":
31              newPoem += "X"
32              break
33          case "O":
34              newPoem += "X"
35              break
36          case "U":
37              newPoem += "X"
38              break
39          case "a":
40              newPoem += "x"
41              break
42          case "e":
43              newPoem += "x"
44              break
45          case "i":
46              newPoem += "x"
47              break
48          case "o":
49              newPoem += "x"
50              break
51          case "u":
52              newPoem += "x"
53              break
54      default:
55          newPoem += String(poem[poem.index(poem.startIndex, offsetBy: x)])
56
57      }
58      x = x + 1
59  }
60  print(newPoem)
```

SOLUTION
Part 2