

## **HOMEWORK 3 - Control Flow Statements**

Please complete both parts of the assignment in a file named hw3.py (inside your home directory > python > week3) and email me when it is complete so that I can check your home directory for the file. Be sure that the script follows all the [style conventions](#).

### **PART I**

Print the following using a `while` loop and `if-elif-else` statements:

```
the number is 1, that is the best
the number is 2, that's the type of pencil you use in the SAT
the number is 3, that rhymes with 'me'
the number is 4, i want some more
the number is 5, like a high-five!
the number is 6, what a neat trick...
```

Make it as simple and elegant as possible, no repeated code please. The solution should have all 4 elements - `while`, `if`, `elif`, and `else`.

### **PART II**

Re-write the “bottles of beer” program using a `while` loop so that it prints out like this:

```
99 bottles of beer on the wall, 99 bottles of beer...
Take one out, pass it around, 98 bottles of beer on the wall!

98 bottles of beer on the wall, 98 bottles of beer...
Take one out, pass it around, 97 bottles of beer on the wall!
```

**BUT, additional features must be built in:**

1) For iterations that reduce the number of bottles to an even number, it must also include the line “YAY...even number of bottles!”. Example:

```
99 bottles of beer on the wall, 99 bottles of beer...
Take one out, pass it around, 98 bottles of beer on the wall!
YAY...even number of bottles!
```

2) When the number of bottles falls to 92, you must include the phrase - “NINETY TWO IS LUCKY!” (but NOT the even number message).

```
93 bottles of beer on the wall, 93 bottles of beer...
```

Take one out, pass it around, 92 bottles of beer on the wall!  
NINETY TWO IS LUCKY!

**(hint: prevent execution from falling through and printing out both the even number message and the ninety-two message)**

3) The loop must be built to run from 99 to 0, but it should **break at 84 beers** with the message - "oh man, I really can't have any more!"

**final hints:**

- try using the += or -= shortcut, look in the notes for what they stand for
- add an extra blank line to a string by tacking on '\n', for instance:
  - 'first line \n secondline'

## **PART II - EXECUTED CODE**

**The result of your code in part II should print this out:**

99 bottles of beer on the wall, 99 bottles of beer...  
Take one out, pass it around, 98 bottles of beer on the wall!  
YAY...even number of bottles!

98 bottles of beer on the wall, 98 bottles of beer...  
Take one out, pass it around, 97 bottles of beer on the wall!

97 bottles of beer on the wall, 97 bottles of beer...  
Take one out, pass it around, 96 bottles of beer on the wall!  
YAY...even number of bottles!

96 bottles of beer on the wall, 96 bottles of beer...  
Take one out, pass it around, 95 bottles of beer on the wall!

95 bottles of beer on the wall, 95 bottles of beer...  
Take one out, pass it around, 94 bottles of beer on the wall!  
YAY...even number of bottles!

94 bottles of beer on the wall, 94 bottles of beer...  
Take one out, pass it around, 93 bottles of beer on the wall!

93 bottles of beer on the wall, 93 bottles of beer...  
Take one out, pass it around, 92 bottles of beer on the wall!  
NINETY TWO IS LUCKY!

92 bottles of beer on the wall, 92 bottles of beer...

Take one out, pass it around, 91 bottles of beer on the wall!

91 bottles of beer on the wall, 91 bottles of beer...

Take one out, pass it around, 90 bottles of beer on the wall!

YAY...even number of bottles!

90 bottles of beer on the wall, 90 bottles of beer...

Take one out, pass it around, 89 bottles of beer on the wall!

89 bottles of beer on the wall, 89 bottles of beer...

Take one out, pass it around, 88 bottles of beer on the wall!

YAY...even number of bottles!

88 bottles of beer on the wall, 88 bottles of beer...

Take one out, pass it around, 87 bottles of beer on the wall!

87 bottles of beer on the wall, 87 bottles of beer...

Take one out, pass it around, 86 bottles of beer on the wall!

YAY...even number of bottles!

86 bottles of beer on the wall, 86 bottles of beer...

Take one out, pass it around, 85 bottles of beer on the wall!

85 bottles of beer on the wall, 85 bottles of beer...

Take one out, pass it around, 84 bottles of beer on the wall!

YAY...even number of bottles!

oh man, I really can't have any more!