Chapter 4 – 99 Bottles of Beer

Brian Veitch

For this assignment, you will be providing the logic (plan) for the following program:

Use loops to make all the lyrics of "99 bottles of beer on the wall" print on the screen. Adjust the last two verses for correct grammar:

**Data**:

Variables

* numberOfBottles: Int, represents the current number of bottles
* bottlesWord: String, will either be “bottles” or “bottle” based on the number of bottles left
* bottlesWordMinusOne: String, will either be “bottles” or “bottle” based on the number of bottles left.

No user input – song will start at numberOfBottles = 99

**Processing**:

There are four lines that are recycled throughout the song. The only change is the number.

99 bottles of beer on the wall,

99 bottles of beer,

Take one down, pass it around,

98 bottles of beer on the wall

Start with numberOfBottles = 99 and loop through the above four lines like this

{numberOfBottles} bottles of beer on the wall,

{numberOfBottles} bottles of beer,

Take one down, pass it around,

{numberOfBottles -1} bottles of beer on the wall

Because of “grammar” the word “bottles” will be “bottle” when we have 1 bottle. So, I’ll replace the four lines with

{numberOfBottles} {bottleWord} of beer on the wall,

{numberOfBottles} {bottleWord} of beer,

Take one down, pass it around,

{numberOfBottles -1} {bottleWordMinusOne} of beer on the wall

In the loop, check how many bottles we have left and assign ‘bottleWord’ and ‘bottleWordMinusOne’ approrpriately.

If numberOfBottles == 2, then bottleWord = “bottles” and bottleWordMinusOne = “bottle”

If numberOfBottles == 1, then bottleWord = “bottle” and “bottleWordMinusOne = “bottles”

Otherwise, bottleWord = “bottles” and bottleWordMinusOne = “bottles”

**Output**:

99 bottles of beer on the wall,

99 bottles of beer,

Take one down, pass it around,

98 bottles of beer on the wall

…

2 bottles of beer on the wall,

2 bottles of beer,

Take one down, pass it around,

1 bottle of beer on the wall

1 bottle of beer on the wall,

1 bottle of beer,

Take one down, pass it around,

0 bottles of beer on the wall