CSC372 Discussion Forum 5

Hello All,

             The basic components of a recursive method are the base case, work toward base case and the recursive call. The base case is the limit or end of the function, so that the method knows when to stop. Without this the method would loop infinitely. A base case can be done in a few different ways such as using a count variable or an if statement to track when to stop. The recursive call is the part of the method calling the method. By having the method call itself, the parameters run up until this point are saved and the method runs again. Work toward base case is the syntax that steps with each recursive loop such that over a set number of loops it will meet the logic for the base case. You can avoid infinitely looping in a method by using logic to limit the amount of time the method will loop.

             Recursive methods are great when there is a standard pattern that can be followed. A common example that’s been utilized to demonstrate this is the Fibonacci sequence. The pattern uses the summation of the first two numbers and equates to the next number or n = (n-1) + (n-2). This sequence returns each subsequent number and continues infinitely. Another example could be using a recursive method for a count-down, where the base case is set to zero and could print out a successful launch message. The Recursive call could then be setup to start at 10 and print the statement as each loop gets lower to the base case.