Daltin Loomis

CSE 274

April 18th, 2015

Debugger Lab

1. A) The purpose of this program is to draw the Sierpinski triangle, a popular example of a fractal.   
   B) The program produces an html file and places it in the project directory.   
   C) The input is an integer that sets the resolution of the triangle. The input is provided by calling the doTriangle() method.
2. I can tell that the expected output is not right because the output is just a bunch of characters displayed onto the grid. Every spot is filled, and the characters are not even ‘8’ like they should be.
3. First I would make sure that all of the values involved with setting up the problem are being set correctly. I might try and print the grid at different points and see if it is being set up properly. For filling out the grid I would also print it out as I go and find where the problem is. This of course implies that printing is working correctly so I would make a test grid that I know works and test the printing and see if it is working correctly.
4. A) I would expect the grid to contain a bunch of space characters, but instead it contains a bunch of trash characters.   
   B) Setting up must contain the bug, because that is where the first breakpoint is and the errors are occurring before the first breakpoint.
5. Lines 62-66 look like they are setting the grid to be full of spaces.
6. A) I would expect to hit the step over button 40000 times in order to go through the whole loop  
   B) When I hit step over it just steps out of the loop after only one time.   
   C) The bug is that there is a semi colon at the end of the for loop. This terminates the for loop after one iteration.
7. A) The output no longer contains the junk characters, but it also doesn’t look like a Sierpinski Triangle.
8. A) The gird should contain an ‘8’ character at the lower left, lower right, and middle top. This looks correct.  
   B) The grid should contain a mix of 8s and spaces, which is does.  
   C) The bug is in the third section: printing the grid
9. The bug is in the second for loop where grid[i\*sidelength + i]. I think the second ‘i’ needs to be changed to j.
10. The picture looks more correct, but it is being cut off on the right side.
11. A) line 79 should be changed to sidelength / 2, not - 1.   
    B) If the code was not commented then finding the problem would have taken forever and may not ever have been found. Using poor variable names would also have made the task even harder.
12. The output now only contains the right side of the triangle.
13. The bug should be contained in middle section where the triangle is being created.
14. The case 0 statement does not end with a break. It will just continue to case 1 after the code is executed.