

CECS 220 Assignment #2

Alex Bennett – February 10, 2015

Part #1 of this assignment required accepting a user's first name and last name and then generating a username starting with the first letter of their first name followed by the first 5 letters of their last name and finally adding on a random number ranging from ten to ninety-nine. Part #2 required accepting three values from the user that represent the lengths of the sides of a triangle and then using Heron's formula to calculate the area of that triangle. Part #3 asked me to generate a random number ranging from twenty to forty (including both twenty and forty) and then displaying that number along with the sin, cos, and tan values.

These assignments were quite simple and required little critical thought as far as logic goes. It was mostly going from point A to point B in terms of accepting values from the user, running calculations, etc., for example. For Part #1 I accepted the user's first and last names and then used `.charAt(int index)` which is a method built into the String object in order to get specific characters from their names. I then generated a random number using the Random Java util (`java.util.Random`). The same basic logic followed suit for the remaining two parts with obvious differences in the overall task being accomplished.

[screenshots attached below]

```
AreaCalculator AreaCalculator
"C:\Program ...
Please enter the length of side A: 5
Please enter the length of side B: 8
Please enter the length of side C: 4
The area of the triangle you defined is 8.182!

Process finished with exit code 0
```

```
AreaCalculator NumberGenerator
"C:\Program ...
Done ----- (assumes radians) ---
number: 37
sin: -0.6435381333569995
cos: 0.7654140519453434
tan: -0.8407712554027598
-----

Process finished with exit code 0
```

```
UsernameGenerator
"C:\Program ...
Please enter your first name: Alex
Thanks! Please enter your last name: Bennett
All done! Your new username is abenne54

Process finished with exit code 0
```