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CECS 220

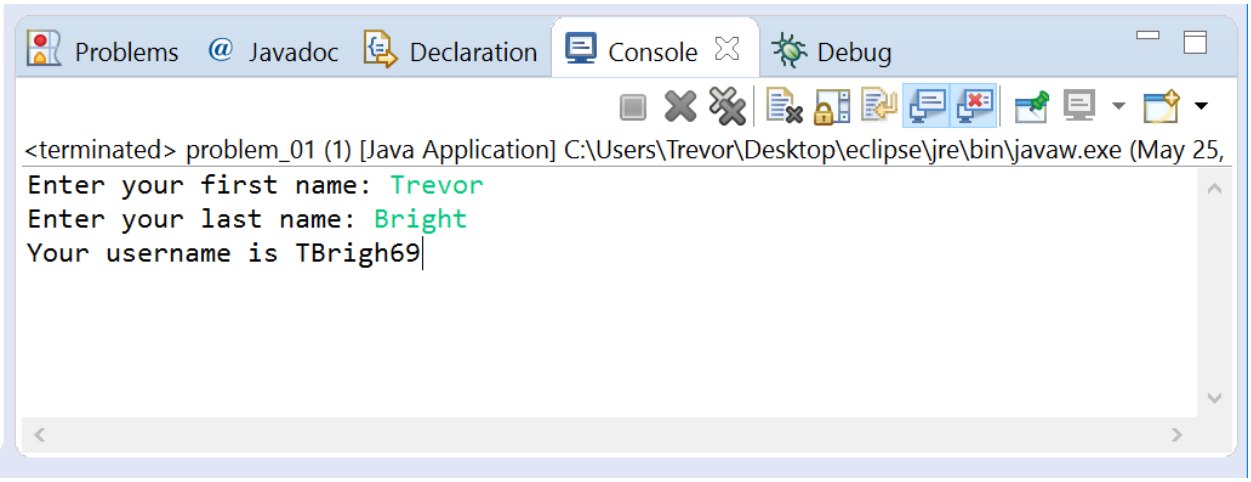
Assignment 2

5/25/17

Problem 1:

Description: This first program is a username creator. It used the first letter of your name, the first 5 letters of your last name, and a random number between 10 and 99 to create a username.

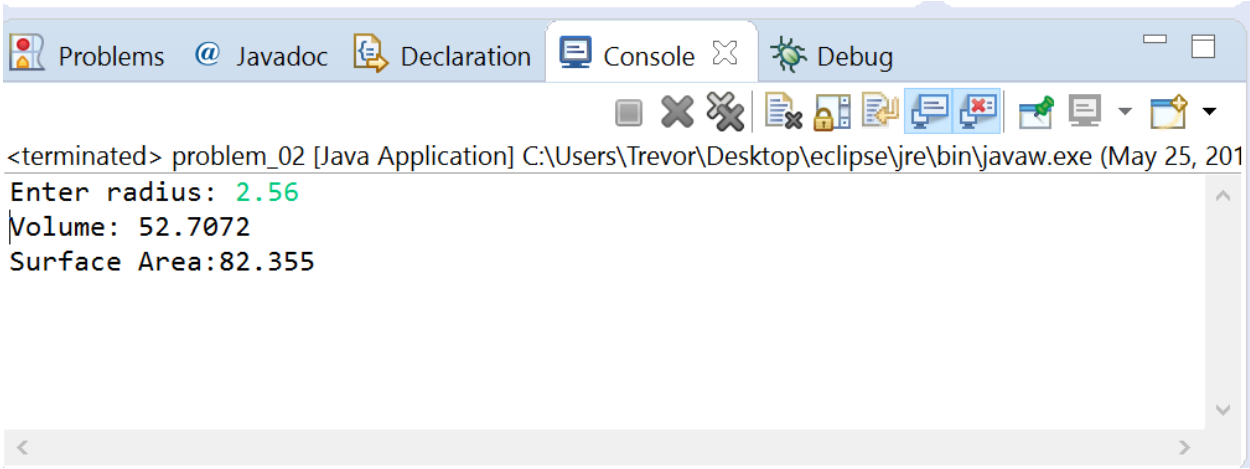
Logic: The logic I used was pretty simple. There were a couple of scanner statements to obtain the users first and last name then a math statement that picks a number between 10 and 99. I then used a print statement to output the username that was created.



Problem 2:

Description: This program is a volume and surface area calculator for spheres based on an inputted radius.

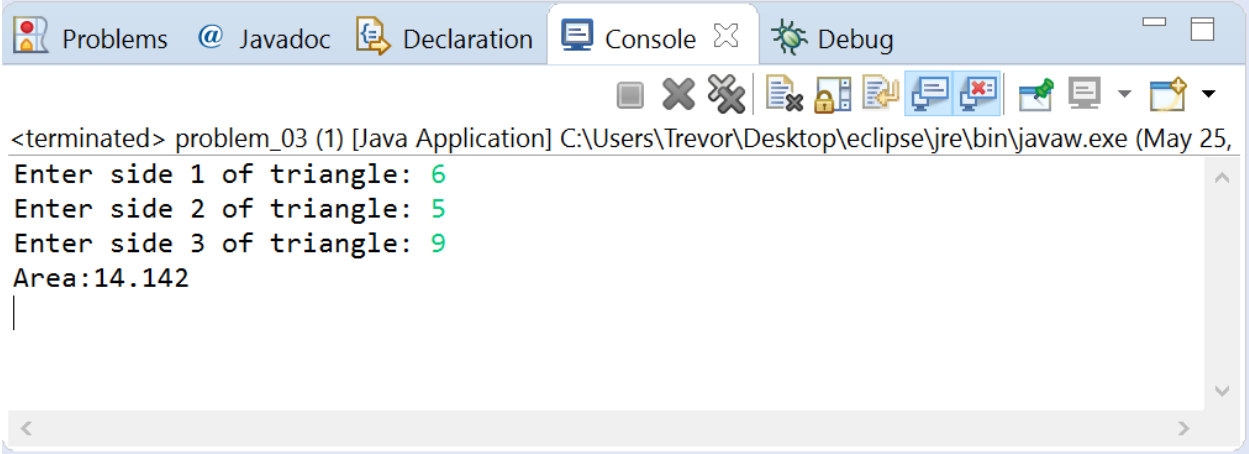
Logic: First, I had a scanner statement to obtain the radius of the radius. Next, the radius inputted would be used in the volume and surface area. Last, the volume and surface area is outputted to four decimal places using the DecimalFormat function.



Problem 3:

Description: This program uses Heron's formula to calculate the area of a triangle based on the sides.

Logic: First, scanner statements were used to obtain the 3 sides of the triangle. Next, s was calculated by adding up the sides and dividing by 2. Lastly, the sides and s were used in Heron's formula and the resulting area was outputted to three decimal places.



Problem 4:

Description: Create a class that stores data for airline flights such as airline name, flight number, origin city and the destination city.

Logic: I used two Java files: one that contained the Flight class defining everything required, and one that inputs data through the Flight class.

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<terminated> FlightTest [Java Application] C:\Users\Trevor\Desktop\eclipse\jre\bin\javaw.exe (May 25, 2017, 6:04:41 PM)
Original flights:
Flight: Name = United, Flight Number = 23453, Origin = Louisville, Destination = Los Angeles
Flight: Name = Southwest, Flight Number = 6789, Origin = Chicago, Destination = New York
Updated flights:
Flight: Name = Delta, Flight Number = 23453, Origin = Louisville, Destination = Los Angeles
Flight: Name = Southwest, Flight Number = 6789, Origin = Lexington, Destination = New York
```

Problem 5:

Description: This program used the Java Applet to make a night scene with stars of different sizes in them.

Logic: I took a similar approach in this program as I did in the last problem. I used two java programs: one to define the Star class to have everything required such as width and the x,y coordinates with setter and getter functions for each, and one input data and draw the scene.

Conclusion:

This assignment helped me learn more about classes, arrays, and further my knowledge in applet graphics.