Software Developer Course Assessment
Quantitative Assessment Practice

Course Name: Advanced Programming (Java)

Submission Date: 16th March 2025

Author: Laura Wiseman

1. **How many hours did it take you to complete this assessment?**

   Answer: This assessment took me approximately 8 hours to complete.

2. **What online resources you have used? (My lectures, YouTube, Stack overflow etc.)**

   Answer: I used your lectures and your powerpoints/notes.

3. **Did you need to ask any of your friends in solving the problems. (If yes, please mention name of the friend. They must be amongst your class fellows.)**

   Answer: I asked Noah Devine for clarification on some wordings in the document.

4. **Did you need to ask questions to any of your instructors? If so, how many questions did you ask (or how many help sessions did you require)?**

   Answer: I did not ask any questions to my instructors for this assignment.

5. **Rate (subjectively) the difficulty of each question from your own perspective, and whether you feel confident that you can solve a similar but different problem requiring some of the same techniques in the future now that you've completed this one.**

   Answer: I would rate this assessment a 7/10. The math questions always get me! I could solve similar ones after I complete the weekly practice!

Code Output:

Problem 1:

```
● laurawiseman@Lauras-MacBook-Air Java-qap3 %  /usr/bin/env /Library/Java/JavaVirtualMac
  eview -XX:+ShowCodeDetailsInExceptionMessages -cp /Users/laurawiseman/Library/Applicat
  d0dacd90976bffeb0404f/redhat.java/jdt_ws/Java-qap3_372c33ac/bin Problem1.Demo
  Name: Coach Bob, Age: 57, Gender: M
  Name: Laura, Age: 25, Gender: F
  Name: Ms. Smith, Age: 45, Gender: F, Subject: Computer Science, Salary: $55000.0
  Name: Caley, Age: 27, Gender: F, Major: English, Year: 2
○ laurawiseman@Lauras-MacBook-Air Java-qap3 %
```

Problem 2:

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    PORTS    TERMINAL

● laurawiseman@MacBookAir Java-qap3 %  /usr/bin/env /Library/Java/JavaVi
  X:+ShowCodeDetailsInExceptionMessages -cp /Users/laurawiseman/Library/
  976bffeb0404f/redhat.java/jdt_ws/Java-qap3_372c33ac/bin Problem2.Demo
  Before move: (1.0, 2.0)(0.5,1.5)
  After move: (1.5, 3.5)(0.5,1.5)
○ laurawiseman@MacBookAir Java-qap3 %
```

Problem 3:

```
● laurawiseman@Lauras-MacBook-Air Java-qap3 %  /usr/bin/env /Library/Java/JavaVirtualMachines/jdk-
  eview -XX:+ShowCodeDetailsInExceptionMessages -cp /Users/laurawiseman/Library/Application\ Suppo
  d0dacd90976bffeb0404f/redhat.java/jdt_ws/Java-qap3_372c33ac/bin Problem3.Demo3
  Ellipse - Perimeter: 10.345204509497567, Area: 47.12388980384689
  Circle - Perimeter: 10.283185307179586, Area: 50.26548245743669
  Triangle - Perimeter: 12.0, Area: 6.0
  Equilateral - Perimeter: 12.0, Area: 6.928203230275509
○ laurawiseman@Lauras-MacBook-Air Java-qap3 % ▮
```

Problem 4:

```
laurawiseman@Lauras-MacBook-Air Java-qap3 %  /usr/bin/env /Library/Java/JavaVirtualMachines/jdk
eview -XX:+ShowCodeDetailsInExceptionMessages -cp /Users/laurawiseman/Library/Application\ Supp
d0dacd90976bffeb0404f/redhat.java/jdt_ws/Java-qap3_372c33ac/bin Problem4.Demo4
Before Scaling:
Circle, - Perimeter: 31.42, Area: 78.54, Radius: 5.00
Ellipse, - Perimeter: 32.04, Area: 75.40, Major Axis: 6.00, Minor Axis: 4.00
Triangle, - Perimeter: 16.00, Area: 11.31, Sides: 6.00, 4.00, 6.00
Equilateral Triangle, - Perimeter: 14.33, Area: 9.76, Sides: 5.00, 4.33, 5.00, Side: 5.00
After Scaling:
Circle, - Perimeter: 62.83, Area: 314.16, Radius: 10.00
Ellipse, - Perimeter: 64.08, Area: 301.59, Major Axis: 12.00, Minor Axis: 8.00
Triangle, - Perimeter: 32.00, Area: 45.25, Sides: 12.00, 8.00, 12.00
Equilateral Triangle, - Perimeter: 14.33, Area: 9.76, Sides: 5.00, 4.33, 5.00, Side: 10.00
laurawiseman@Lauras-MacBook-Air Java-qap3 %
```