1. How many hours did it take you to complete this assessment? (Please estimate per problem if possible)

Problem 1: about 2–3 hours, I had to test each class

Problem 2: around 1 hour

Problem 3: maybe 3 hours

Problem 4: around 1 hour

2. What online resources did you use? (e.g., Lectures, YouTube, Stack Overflow, etc.)

I used lectures, you tube , udemy java course and AI to generate the names

3. Did you get help from any classmates? No

4. Did you ask for help from an instructor? No

5. Rate the difficulty of each problem and your confidence in solving similar problems in the future.

Problem 1: Pretty easy. I'm confident doing inheritance now

Problem 2: Easy

Problem 3: Medium, I had to think a lot

Problem 4: Medium, but I loved it — I feel confident using interfaces now

Task 1:


```
(base) valeriiaholotiuk@Valeriias-MacBook-Air ~ %  /usr/bin/env /Library/Java/JavaVirtualMachine
ib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:60654 --enable-preview -XX:+Sho
e/var/folders/y9/rw7n4gyn7f14fp0sst2f34kr0000gn/T/vscodesws_15eeb/jdt_ws/jdt.ls-java-project/bir
Coach Bob, age: 27, gender: M
Lynne Brooke, age: 16, gender: F, ID: HS95129, GPA: 3.5
Duke Java, age: 34, gender: M, subject: Computer Science, salary: $50000.0
Ima Frosh, age: 18, gender: F, ID: UCB123, GPA: 4.0, year: 1, major: English
(base) valeriiaholotiuk@Valeriias-MacBook-Air ~ %
```

Task 2:

```
(base) valeriiaholotiuk@Valeriias-MacBook-Air task2 % javac *.java
java Demo

Before move: (2.5, 3.0) speed=(1.5, -0.5)
After move: (4.0, 2.5) speed=(1.5, -0.5)
(base) valeriiaholotiuk@Valeriias-MacBook-Air task2 %
```

Task 3:

```
(base) valeriiaholotiuk@Valeriias-MacBook-Air task3 % javac *.java
java Demo

Shape: Circle, Area: 78.53981633974483, Perimeter: 31.41592653589793
Shape: Ellipse, Area: 75.39822368615503, Perimeter: 32.03808448882818
Shape: Triangle, Area: 6.0, Perimeter: 12.0
Shape: Triangle, Area: 6.928203230275509, Perimeter: 12.0
(base) valeriiaholotiuk@Valeriias-MacBook-Air task3 %
```

Task 4:

```
(base) valeriiaholotiuk@Valeriias-MacBook-Air task4 % cd ~/Desktop/java/qap3/task4
javac *.java
java Demo

Before scaling:
Shape: Circle, Area: 78.53981633974483, Perimeter: 31.41592653589793
Shape: Ellipse, Area: 75.39822368615503, Perimeter: 32.03808448882818
Shape: Triangle, Area: 6.0, Perimeter: 12.0
Shape: Triangle, Area: 6.928203230275509, Perimeter: 12.0

After scaling:
Shape: Circle, Area: 314.1592653589793, Perimeter: 62.83185307179586
Shape: Ellipse, Area: 301.59289474462014, Perimeter: 64.07616897765637
Shape: Triangle, Area: 24.0, Perimeter: 24.0
Shape: Triangle, Area: 27.712812921102035, Perimeter: 24.0
(base) valeriiaholotiuk@Valeriias-MacBook-Air task4 %
```