QAP 2 – Advanced Programming (Java)
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1. How many hours did it take you to complete this assessment?

   A: I worked on this assignment for approximately 10-12 hours total. I had to rewatch some lectures to refresh some topics!

2. What online resources you have used?

   A: I used your lectures and PowerPoints!

3. Did you need to ask any of your friends in solving the problems?

   A: I asked Noah Devine about some structures and wording!

4. Did you need to ask questions to any of your instructors?

   A: I did not ask an instructor any questions regarding this assignment.

5. Rate this assignment.

   A: I would rate this assignment an 8/10! I found this QAP a little more challenging! I've enjoyed the concepts we've covered for this QAP! I will need some more practice of course.☺

Problem #1:

```
● laurawiseman@MacBookAir JAVAQAP2 % >....
  /laurawiseman/Library/Application\ Support/Code/User/workspaceStorage/8186b1a1ea984d34904bcb
  cf6a3d4517/redhat.java/jdt_ws/JAVAQAP2_4a3e5f3d/bin TestMyLine
  MyLine [begins = (2,2), ends = (2,2)]
  MyLine [begins = (1,2), ends = (1,2)]
  l1 begin: (2,2)
  l1 new begin: (3,3)
  l1 end: (2,2)
  l1 new end: (4,4)
  l1 begin X: 3
  l1 new begin X: 5
  l1 begin Y:3
  l1 new begin Y:6
  l1 begin X: 4
  l1 new begin X: 7
  l1 begin Y:4
  l1 new begin Y:8
  l1 begin XY:[I@5a07e868
  l1 new begin XY: [9, 9]
  l1 end XY:[I@76ed5528
  l1 new begin XY: [10, 10]
  l1 length: 1.4142135623730951
  l1 gradient: 0.7853981633974483
  l1 toString: MyLine [begins = (9,9), ends = (10,10)]
○ laurawiseman@MacBookAir JAVAQAP2 %
```

Problem #2:

```
● laurawiseman@MacBookAir JAVAQAP2 %  /usr/bin/env /Library/Java/JavaVirtualMachines/jdk-23.jd
  k/Contents/Home/bin/java --enable-preview -XX:+ShowCodeDetailsInExceptionMessages -cp /Users
  /laurawiseman/Library/Application\ Support/Code/User/workspaceStorage/8186b1a1ea984d34904bcb
  cf6a3d4517/redhat.java/jdt_ws/JAVAQAP2_4a3e5f3d/bin TestMyRectangle
  Rectangle:[TopLeft=(2,6), BottomRight=(4,8)]
  Width:2
  Height:2
  Area:4
  Perimeter:8
○ laurawiseman@MacBookAir JAVAQAP2 %
```

Problem #3:

```
laurawiseman@MacBookAir JAVAQAP2 %  /usr/bin/env /Library/Java/JavaVirtualMachines/jdk-23.jdk/Contents/Home/bin/java
--enable-preview -XX:+ShowCodeDetailsInExceptionMessages -cp /Users/laurawiseman/Library/Application\ Support/Code/Us
er/workspaceStorage/8186b1a1ea984d34904bcbcf6a3d4517/redhat.java/jdt_ws/JAVAQAP2_4a3e5f3d/bin CreditCardDemo
Christie DianeStreet:237J Harvey HallCity:MenomonieState:WIZip:54751
Balance:$0.00
Credit Limit:$1000.00

Attempt to Charge:$200.00
Charge denied: Over credit limit.
Balance:$0.00
Attempt to Charge:$10.02
Charge denied: Over credit limit.
Balance:$0.00
Attempt to Pay:$25.00
Balance:$0.00
Attempting to Charge:$990.00
Charge denied: Over credit limit.
Balance:$0.00
laurawiseman@MacBookAir JAVAQAP2 %
```

UML table