//Brad Ayers
//October 4-6, 2024
//QAP2

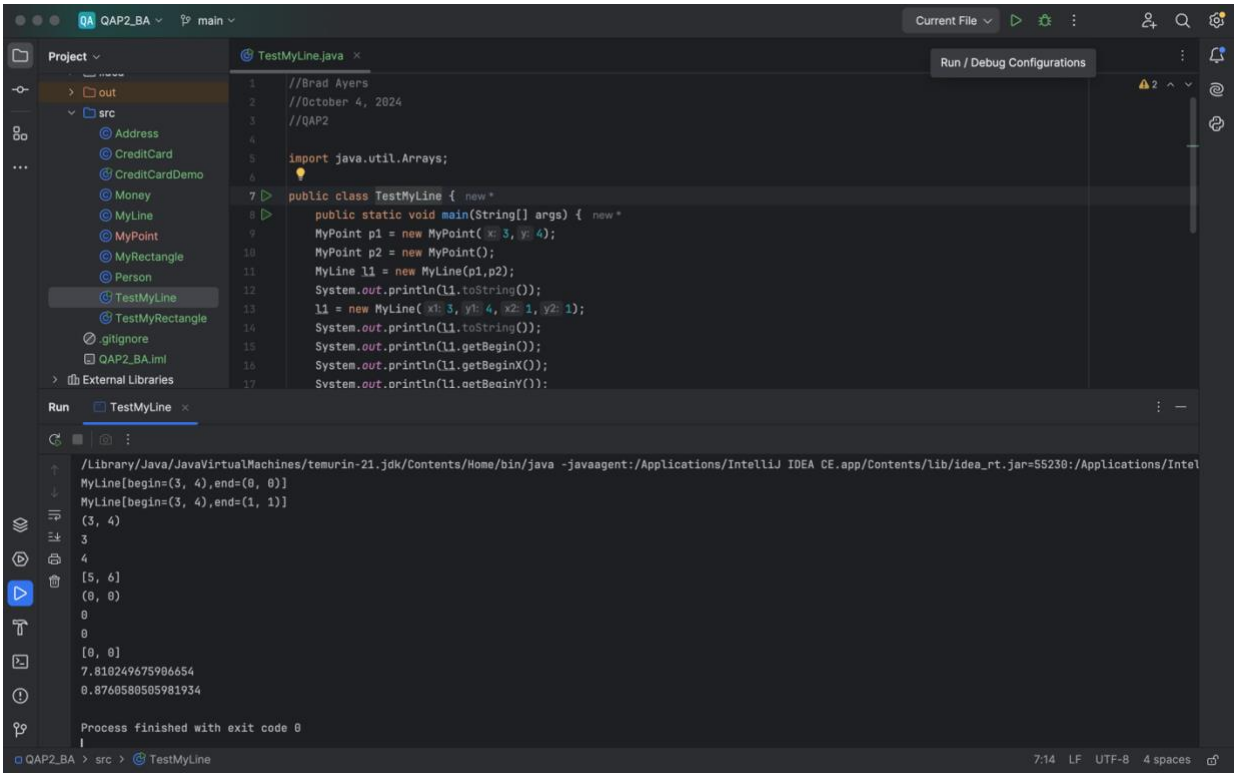
MyRectangle
- tl :MyPoint
-br:MyPoint

_____
+getTL():MyPoint
+setTL(tl:MyPoint):void
+getBR():MyPoint
+setBR(br:MyPoint):void
+getTR():MyPoint
+getBL():MyPoint
+getW():int
+getL():int
+getPerimeter():int
+getArea:int

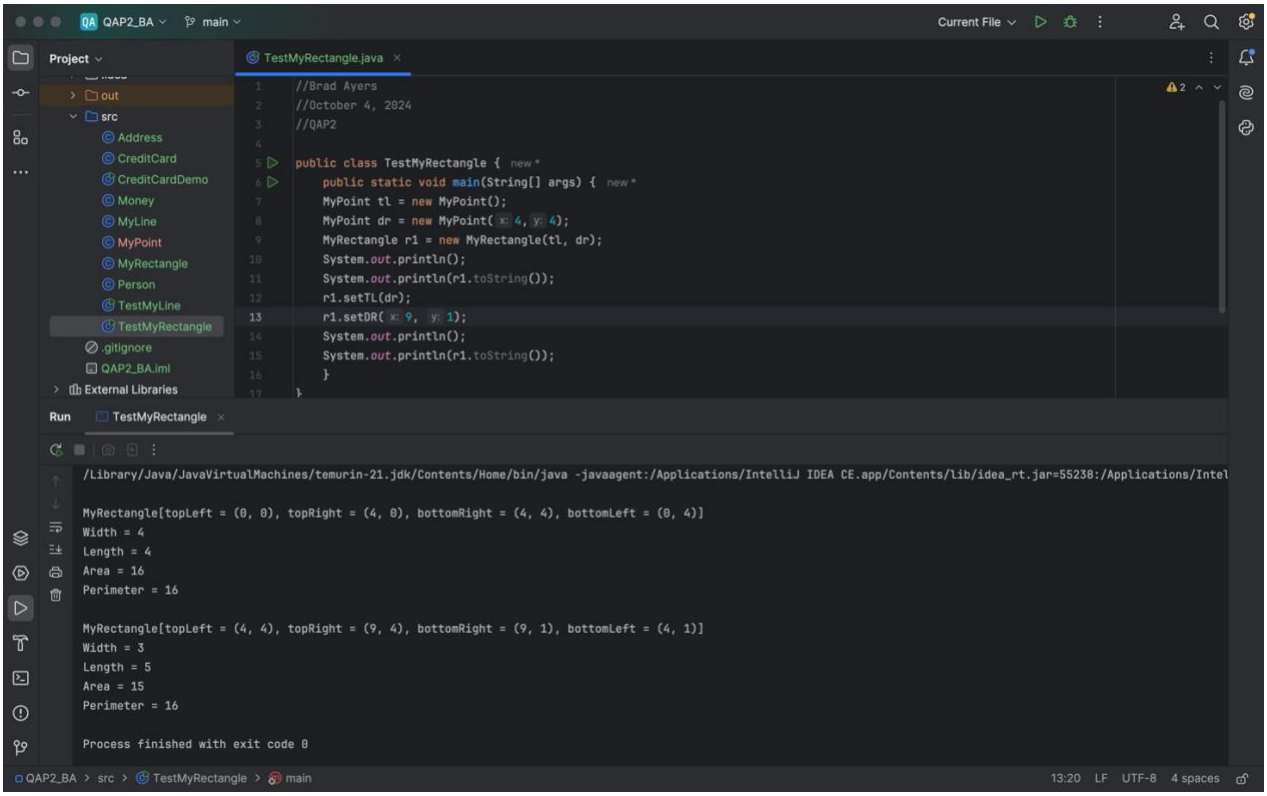
1. How many hours did it take you to complete this assessment? (Please keep try to keep track of how many hours you have spent working on each individual part of this assessment as best you can - an estimation is fine; we just want a rough idea.)
   I spent several hours on this assignment over the course of two or three days. I probably could have finished faster if it was time sensitive, but I started early so I could take my time.
2. What online resources you have used? (My lectures, YouTube, Stack overflow etc.)
   The most important resources for me were the examples we did in the previous week's practice exercises and the information given in the assignment itself. I did consult various websites such as baeldung, stackoverflow, and w3schools. Ironically, I was at risk of a stack overflow error. I had written code for all classes in question 3 and when I ran TestCreditCard.java, my numbers were slightly off. I tinkered with it myself for a while before consulting ChatGPT. There were significant changes since the logic of my original code was off, but luckily I caught it in the test and found a better solution. https://chatgpt.com/share/6701f520-04dc-8000-aba5-d4c4f6c4250e
   I also found the built-in suggestions in IntelliJ to be very useful.
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.)
   Adam Stevenson helped me think of better logic during the planning phase of MyRectangle.
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)?
   I didn't ask any instructors or TAs for help with 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.
   I enjoyed this QAP a lot. I think the questions progressed nicely in difficulty from beginning to end. I also enjoyed that we had a bit more freedom in some places to come up with different ways to do things. And the fact that we were given the CreditCardDemo.java in Q3 made it feel a bit like TDD, I was a fan of that.
   I don't think any of the questions were too difficult for us. I do need to review the Equals and compareTo methods and the general logic of the Money class, I have a feeling it will be used again. I definitely think I could do a similar assignment more quickly than this.

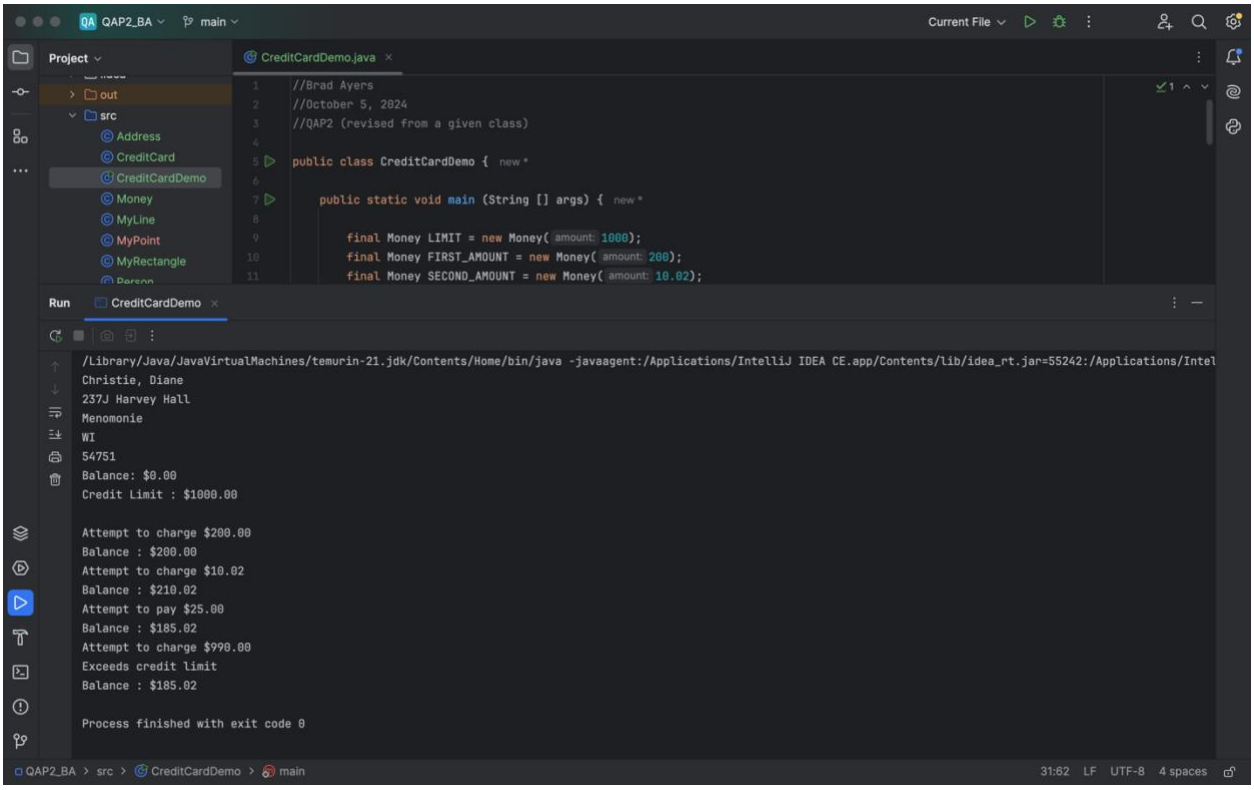
Q1:



Q2:


QAP2_BA
main
Current File
Project
TestMyRectangle.java
out
src
Address
CreditCard
CreditCardDemo
Money
MyLine
MyPoint
MyRectangle
Person
TestMyLine
TestMyRectangle
.gitignore
QAP2_BA.iml
External Libraries
//Brad Ayers
//October 4, 2024
//QAP2
public class TestMyRectangle {
public static void main(String[] args) {
MyPoint tl = new MyPoint();
MyPoint dr = new MyPoint(x: 4, y: 4);
MyRectangle r1 = new MyRectangle(tl, dr);
System.out.println();
System.out.println(r1.toString());
r1.setTL(dr);
r1.setDR(x: 9, y: 1);
System.out.println();
System.out.println(r1.toString());
}
}
Run
TestMyRectangle
/Library/Java/JavaVirtualMachines/temurin-21.jdk/Contents/Home/bin/java -javaagent:/Applications/IntelliJ IDEA CE.app/Contents/lib/idea_rt.jar=55238:/Applications/Intel
MyRectangle[topLeft = (0, 0), topRight = (4, 0), bottomRight = (4, 4), bottomLeft = (0, 4)]
Width = 4
Length = 4
Area = 16
Perimeter = 16
MyRectangle[topLeft = (4, 4), topRight = (9, 4), bottomRight = (9, 1), bottomLeft = (4, 1)]
Width = 3
Length = 5
Area = 15
Perimeter = 16
Process finished with exit code 0
QAP2_BA > src > TestMyRectangle > main
13:20 LF UTF-8 4 spaces

Q3:


QAP2_BA
main
Current File
Project
CreditCardDemo.java
out
src
Address
CreditCard
CreditCardDemo
Money
MyLine
MyPoint
MyRectangle
//Brad Ayers
//October 5, 2024
//QAP2 (revised from a given class)
public class CreditCardDemo {
public static void main (String [] args) {
final Money LIMIT = new Money(amount: 1000);
final Money FIRST_AMOUNT = new Money(amount: 200);
final Money SECOND_AMOUNT = new Money(amount: 10.02);
Run
CreditCardDemo
/Library/Java/JavaVirtualMachines/temurin-21.jdk/Contents/Home/bin/java -javaagent:/Applications/IntelliJ IDEA CE.app/Contents/lib/idea_rt.jar=55242:/Applications/Intel
Christie, Diane
237J Harvey Hall
Menomonie
WI
54751
Balance: $0.00
Credit Limit : $1000.00
Attempt to charge $200.00
Balance : $200.00
Attempt to charge $10.02
Balance : $210.02
Attempt to pay $25.00
Balance : $185.02
Attempt to charge $990.00
Exceeds credit limit
Balance : $185.02
Process finished with exit code 0
QAP2_BA > src > CreditCardDemo > main
31:62 LF UTF-8 4 spaces