

CSC 111 – Data Structures and Abstraction

Homework Assignment_1.

Part 1: Reading Journal

Read Sections 1.1 to 1.3 (pp 3-24) in your textbook (Walls and Mirrors) and answer the following questions in Sections 1.1 to 1.3 Reading Journal on Blackboard by 7:59 am.

1. Select the most interesting or provocative item from the reading? Identify the topic and page number(s). Briefly explain why you selected this particular item.

I think the most interesting part of the reading is that Java has many different assignment rules with its operators. On page 10, the book describes the many ways that variables can be assigned to each other, for example, how “a+= b” is the same as “a = a + b”. It’s interesting how combining two characters like plus and equals can get a simplified equation that’s easier to write.

2. Select one Java concept that you found most similar to what you learned about Scala in CSC110. Identify the topic and page number(s). Briefly explain why you selected this particular concept. (If you did not take CSC110, then select the concept that you found most familiar.)

One of the most obvious topics to pick is that the commenting system in Java is no different from Scala, and for that matter any other coding language I’ve learned (page 4). Commenting with the double slash (//) and star slash for box comments (*/) is the same in Scala, Java, C++, etc. and it seems to be a universal way to show how a program works from inside the code.

3. Select one Java concept that you found least similar to what you learned about Scala in CSC110. Identify the topic and page number(s). Briefly explain why you selected this particular concept. (If you did not take CSC110, then select the concept that you found least familiar.)

Variables in Java seem to be completely flipped from Scala. In Scala, we had mutability and immutability with our variables, using the ‘var’ and ‘val’ keywords before each variable was declared. In Java, you just use the type to call a variable without anything to make a variable immutable. This is on pages 4 and 5.

4. From the reading, what item or concept do you find most confusing? Identify the topic and page number(s). Why do you find this item or concept confusing?

The most confusing concept to me would have to be iteration statements (page 17). Even though I have been coding for a while now, I still get tripped up on which iteration statement to use in certain situations and have had trouble deciding if a while or do while loop will do the job in the most efficient way.

Part 2: Other activities

1. Prepare a Scala-Java conversion process document.
2. Use the document in #1 to convert InRangeScala to Java. Check your work with InRangeScala.
3. Install Java and Eclipse.

4. Use the Scala-Java conversion process from Minesweeper to Java. Run it. Submit the Java code and a screenshot of the output.
5. Read Extract from Object First. Respond to the questions on page 2 of the document. Submit to BB.
6. **For CSC111L:** Use the Scala-Java conversion process from CrapsScala to Java. Run it. Submit the Java code and a screenshot of the output.