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Enthuware Test 4 Review

It is important to use your study time effectively by identifying your weaknesses. Go through all the explanations for the questions on yesterday's enthuware exam and answer the following questions.

1. What types of questions were the hardest for you? Give the problem number for one of them. Which Test objective does it fall under?

- For test 4, the hardest questions for me are questions from the “Java Methods” category. Specifically, question number 46 took some time to understand. This question asks about the different ways varargs can be used, and I learned a lot. Varargs is a parameter type that can take any number of a data type including primitives, objects, and generics. The varargs parameter type has a specific syntax starting with the data type, followed by an ellipsis, and ending with the local variable name. A program will not compile if there are two methods that are named the same, and one method has an array of a data type while the other method has a varargs of the same data type. The method signature is the same to the compiler.

2. What was a question you got right, but when you read the solution, you realized your reasoning was off? (Give the problem number and explanation.)

- A question I got partially right is number 4, but it is not for the correct reason. This question only had one correct answer, so it was marked as completely wrong. However, within each answer, there were two answers. There are two methods, one is assigned an integer primitive as an argument, and the other is assigned an integer array. The primitive local variable was incremented and so was the first index of the array. I had an incorrect thinking that the method would return the value first before incrementing, but this was false. Since Java works through the “pass by value” semantics, the value of the primitive was passed, so the method’s increment had no effect on the value contained in the instance scope. But with the array, the memory location was passed, so the changes in the method were represented in the instance scope as well.

3. Find one resource for learning more about the topic you struggled on such as method overloading [https://www.digitalocean.com/community/tutorials/overriding-vs-overloading-in-javaLinks to an external site.](https://www.digitalocean.com/community/tutorials/overriding-vs-overloading-in-java) and put the link here and share the link with your classmates.

- I learned a lot about Java methods. I like this article from Geeks for Geeks on varargs. It gives a brief history of why varargs exists and then goes into examples. It is published here: <https://www.geeksforgeeks.org/variable-arguments-varargs-in-java/> . Shared on Discord with peers.