

Lab Report (Generics)

I/we the undersigned, promise that the submitted lab report is/are my/our own work. While I/we was/were free to discuss ideas with others, the work contained is my/our own. I/we recognize that should this not be the case; I/we will be subject to penalties as outlined in the course syllabus.

(By typing in your name below, you agree to Academic Integrity and honesty)

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Reflection:

Explain in a few lines how generics are useful in Java

Generics in Java are very helpful; they allow programmers to be able to create classes and interfaces that are built around generic data types and thus are more malleable. Instead of having to create a new interface/class every time you want to use a functionality for a certain program, you can build an initial program using generics and use that for the other data types (integer, double, etc.). This allows us to avoid any errors with data types mismatching or having to cast excessively.

Answer the following questions

1) What does “?” mean in the context of Java Generics.

The “?” symbol refers to the wildcard in Java Generics. The wildcard allows programmers to have a placeholder in areas where the data type of a value, parameter, or variable is not known or not necessary to know.

2) What is a generic method vs generic class.

A generic method is a method that allows the use of multiple variable types using at least one placeholder generic parameter. On the other hand, generic classes are used to set up a blueprint for an object without having to declare a class. You can set the type of the object while initializing. There can be generic methods inside of generic and

non-generic classes. In short, you can use generic methods to set up methods that are capable of using multiple data types and you can use generic classes to create objects of different types.