Java Generics

Parametric Polymorphism

WILDCARD GENERICS

DR. ERIC CHOU

IEEE SENIOR MEMBER

Wildcard Generic Type

You can use unbounded wildcards, bounded wildcards, or lower-bound wildcards to specify a range for a generic type.

- What are wildcard generic types and why are they needed? **WildCardNeedDemo.java** gives an example to demonstrate the needs. The example defines a generic max method for finding the maximum in a stack of numbers. The main method creates a stack of integer objects, adds three integers to the stack, and invokes the max method to find the maximum number in the stack.

- The program in **WildCardNeedDemo.java** has a compile error in because intStack is not an instance of GenericStack<Number>. Thus, you cannot invoke max(intStack). The fact is that Integer is a subtype of Number, but **GenericStack<Integer>** is not a subtype of **GenericStack<Number>**.

- To circumvent this problem, use wildcard generic types. A wildcard generic type has three forms: **?** and **? extends T**, as well as **? super T**, where **T** is a generic type.

Why Wildcard Generic?

Demo Program: WildCardNeedDemo.java

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