

Phase 11 . 9 : Generic Type Instantiation

Example 1 : Basic Generic Instantiation

(a)

$\text{emptyset}[N]$

(b)

$\text{seq}[N]$

(c)

$P[X]$

Example 2 : Complex Type Parameters

(a)

$\text{emptyset}[N \times N]$

(b)

$P[\mathbb{P} X]$

(c)

$\text{seq}[N \times N]$

Example 3 : Multiple Type Parameters

(a)

$Type[A, B]$

(b)

$Container[X, Y, Z]$

Example 4 : Nested Generic Instantiation

(a)

$Type[List[N]]$

(b)

$Container[\text{seq}[N]]$

Example 5 : Chained Generic Instantiation

(a)

$$Type[N][M]$$

Example 6 : Generic Types in Expressions

(a)

$$x \in Type[N]$$

(b)

$$A \subseteq P[X]$$

(c)

$$\emptyset[N] \cup \{x\}$$

Example 7 : Generic Types in Set Comprehensions

(a)

$$\{s : P[N] \mid s = \emptyset[N]\}$$

(b)

$$\{x : seq[N] \mid \#x > 0\}$$