

SENG2200/6220 –Programming Languages & Paradigms

Self-Quiz for Week 6, Semester 1, 2020

True/False Questions.

1. Iterator is the concept only for Java.
2. A container can have many iterators, but an iterator can associate with only one container.
3. An iterator cannot exist after the associated container is destroyed, i.e. they have the same lifetime.
4. Iterator and container objects can work under Polymorphism.
5. A container must implement the `Iterable<E>` interface to instantiate iterator objects.
6. An iterator class should be modelled as a private inner class of a container class.
7. The iterator object `iter` will throw an exception.

```
Iterator<MyClass> iter = tcol.iterator();
while (iter.hasNext()) {
    MyClass myObject = iter.next();
    if ( ... some condition ... )
        tcol.removeLast();
}
myObject = iter.next();
```

Short-Answer Questions

8. What is a collections framework? What advantages can we have by using the collections framework?
9. The `next()` method of the `Iterator<E>` interface needs to check two preconditions, what are they?