VIII

CONCURRENCY PATTERNS

Concurrency patterns deal with:

- Ways to lock class code and an order of locking objects to prevent the occurrence of race conditions and deadlocks
- The details of streamlining access to an application resource to improve the overall application responsiveness
- The details of method execution while a required precondition is not met

Chapter	Pattern Name	Description
41	Critical Section	Stricter form of Monitor. Used to lock the code at the class level to keep multiple threads from executing the locked code even on two different instances of the same class.
42	Consistent Lock Order	Recommends identifying and documenting a well-defined order of locking objects to be followed consistently during the design and the development of an application to eliminate the possibility of the occurrence of a deadlock.
43	Guarded Suspension	Recommends a method to be designed to suspend its execution until the object is in a state that makes a required precondition true.
44	Read-Write Lock	Recommends allowing simultaneous read operations while preventing simultaneous updates to the values of an application resource in order to improve the overall application responsiveness.