**Chapter 14**

**Knowledge Goals**

* To learn what a linked list is and understand what a node is.
* To learn what a sorted linked list is.
* To understand the functionality and the various methods of a linked list.
* To learn what a stack is and how it works.
* To learn how a stack can be implemented using a linked list or an array.
* To learn what a queue is and how it works.
* To learn how a queue can be implemented using a linked list or a circular array.
* To learn how a linked list can be implemented with double links.
* To learn how a linked list of generic objects can be implemented.
* To learn how a linked list can be implemented recursively.

**Skill Goals**

*To be able to:*

* Implement a linked list of primitive types or objects.
* Develop a test program to verify the correctness of the methods of a linked list.
* Implement a sorted linked list.
* Implement a stack and its functionality using a linked list.
* Implement a stack and its functionality using an array.
* Implement a queue and its functionality using a linked list.
* Implement a queue and its functionality using a circular array.
* Implement a linked list with double links.
* Implement a linked list of generic objects.
* Implement a linked list recursively.