Java Programming

2-5: Collections – Part 2

Practice Activities

Lesson Objectives:

- Implement a HashMap
- Implement a stack by using a deque
- Define a link list
- Define a queue
- Implement a comparable interface

Vocabulary:

Identify the vocabulary word for each definition below.

	A double-ended queue; a queue that can add and remove elements to the front or back of the list.
	The links of a LinkedList.
	An interface used to define a group of objects. This includes lists and sets.
	Maps that link a Key to a Value and may have duplicate Keys but cannot have duplicate Values.
	A list of elements that is dynamically stored.
	A list of elements with a first in first out ordering.

Try It/Solve It:

1. What is the difference between a Queue and a Stack? Give an example of each.

2. Is it possible to add nodes to the beginning of a LinkedList? If so, how? What about adding a node to the end of a LinkedList? If this can be done, what method would be used?

3. What is the purpose of implementing the Comparable interface in one of our classes?

4. You are going to use a collection to store courses and their codes. Using the most appropriate collection store the following information.

Code	Course
CIT	Computing and Information Technology
CHI	Childcare and Early Education
MVS	Motor Vehicle Systems
BTH	Beauty Therapy
GDE	Graphic Design

Print out the list of courses.

Use the get method on one of the course codes to get the course name.