Data Structures Lab – Java Collections and Interfaces

Overview

Use Java collections and interfaces.

Part 1

Create an Employee class. It should have member variables for id and name. Write get/set methods for each member variable.

Part 2

Write a static method named showAll that takes a List<Employee> as a parameter (it should take a List and NOT an ArrayList). Inside this method write a loop that will print all data in the List.

Part 2

Do the following in main:

- Create an instance of an ArrayList of Employee.
- Create three instances of Employee and add them to the ArrayList instance.
- Call the showAll method passing in the ArrayList.
- Test the program

Part 3

Do the following in main:

- Create an instance of a LinkedList of Employee.
- Create three instances of Employee and add them to the LinkedList instance.
- Call the showAll method passing in the LinkedList.
- Test the program

Part 4

Use an iterator. Write a static method named showAllUsingIterator that takes a List<Employee> as a parameter (it should take a List and NOT an ArrayList). Inside this method do the following:

- Declare an Iterator type variable (not ListIterator).
- Initialize the iterator to the start of the List instance (the parameter).
- Write a while loop that will print all data in the List using the iterator.
- In main, call showAllUsingIterator passing in the ArrayList.

- In main, call showAllUsingIterator passing in the LinkedList.
- Test the program.