JAVA REPORT

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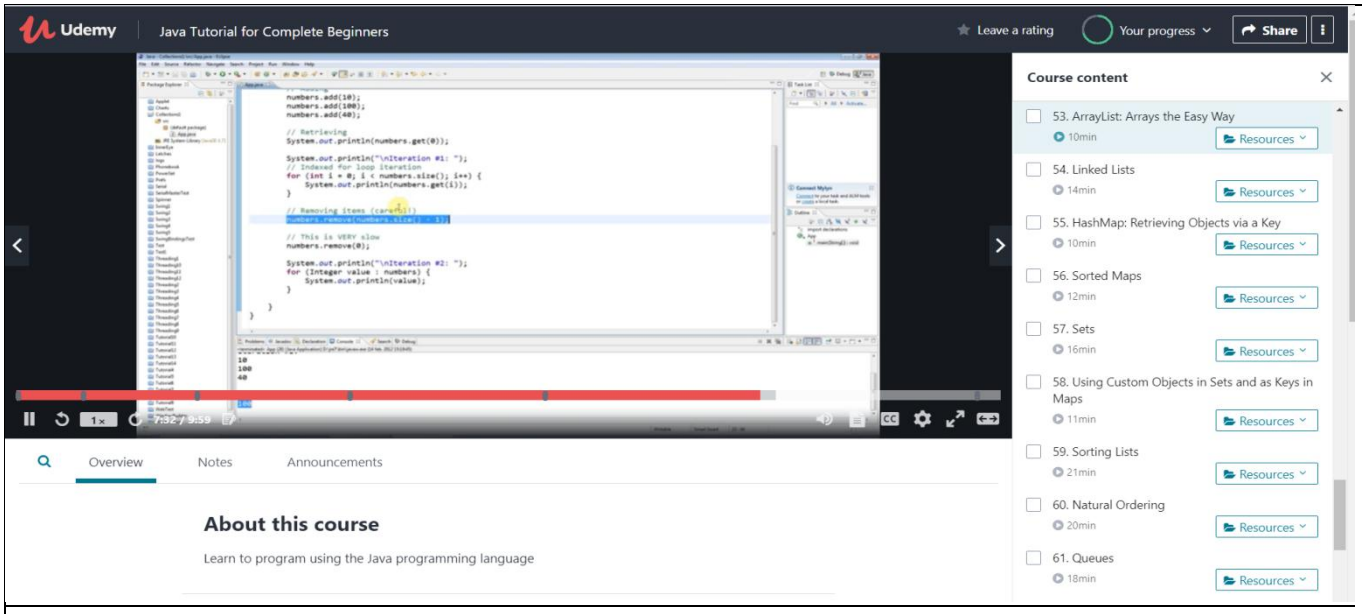
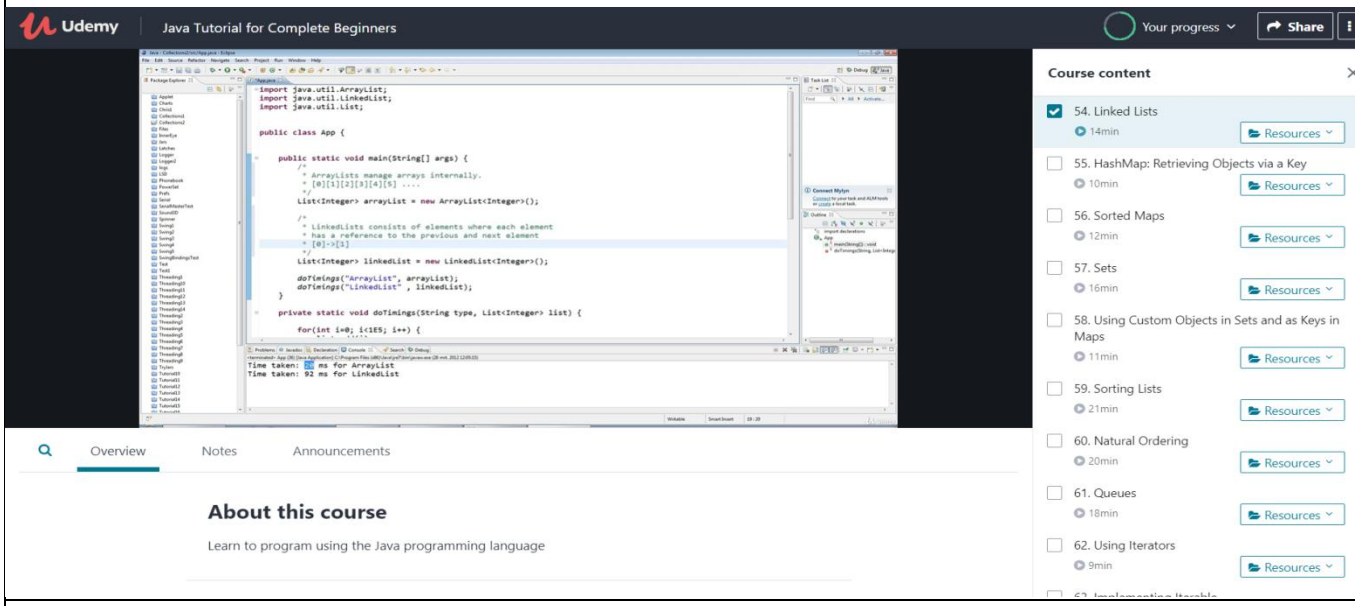
Course:	JAVA	USN:	4AL16EC061
Topic:	1. ArrayList: Arrays the Easy Way 2. Linked Lists 3. HashMap: Retrieving Objects via a Key 4. Sorted Maps 5. Sets 6. Using Custom Objects in Sets and as Keys in Maps 7. Sorting Lists	Semester & Section:	8TH B
Github Repository:	Safiya-Courses		





Array of ArrayList in Java

We often come across 2D arrays where most of the part in the array is empty. Since space is a huge problem, we tr
the space. One such solution is to use jagged array when we know the length of each row in the array, but the prob

specifically know the length of each of the rows. Here we use ArrayList since the
Following is a Java program to demonstrate the above concept.

LinkedList in Java

Linked List are linear data structures where the elements are not stored in contiguous locations and every element data part and address part. The elements are linked using pointers and addresses. Each element is known as a node. ease of insertions and deletions, they are preferred over the arrays. It also has few disadvantages like the nodes c instead we need to start from the head and follow through the link to reach to a node

To store the elements in a linked list we use a doubly linked list which provides a linear data structure and also used and implement list and deque interfaces.

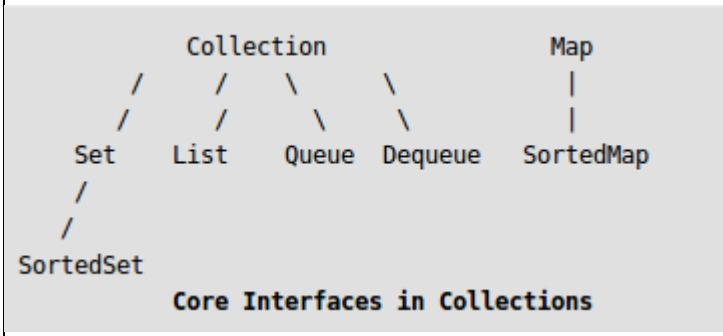
In Java, LinkedList class implements the list interface. The LinkedList class also consists of various constructors a collections.

Constructors for Java LinkedList:

1. LinkedList(): Used to create an empty linked list.
2. LinkedList(Collection C): Used to create a ordered list which contains all the elements of a specified col collection's iterator.

SortedMap Interface in Java with Examples

SortedMap is an interface in collection framework. This interface extends Map interface and provides a total orderin can be traversed in sorted order of keys). Exampled class that implements this interface is TreeMap.



Core Interfaces in Collections

The main characteristic of a SortedMap is that, it orders the keys by their natural ordering, or by a specified com a TreeMap when you want a map that satisfies the following criteria:

Collections.sort() in Java with Examples

java.util.Collections.sort() method is present in java.util.Collections class. It is used to sort the elements present in the in ascending

It works similar to java.util.Arrays.sort() method but it is better then as it can sort the elements of Array as well as l
more present in it.

public static void sort(List myList)

myList : A List type object we want to sort.

This method doesn't return anything