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Lab Assignment 6

1) Write a program to convert LinkedList to ArrayList?

Code: –

```java
//1) Write a program to convert LinkedList to ArrayList?
package Assignment6;

import java.util.ArrayList;
import java.util.LinkedList; // Importing Linkedlist package

public class Program1 { // public class

    public static void main(String[] args) { // main method
            LinkedList<Integer> l = new LinkedList<Integer>();
// creating object of LinkedList that is l
            l.add(5); // adding values inside the linked list by
using add method
            l.add(15); // adding values inside the linked list
by using add method
            l.add(75); // adding values inside the linked list
by using add method
            l.add(35); // adding values inside the linked list
by using add method
            System.out.println(l); // printing the list
            ArrayList<Integer> al = new ArrayList<Integer>(l);
// Converting LinkedList into ArrayList

        System.out.println("====================================
=====================");
            System.out.println("Printing list after converting
linkedlist into arraylist");
            System.out.println(al); // printing the array list

        }

}
```

Output: –

```
[5, 15, 75, 35]
========================================================
Printing list after converting linkedlist into arraylist
[5, 15, 75, 35]
```

2) Write a program using Vector to store students information id's,names,Qualification.

Code: -

```java
//2) Write a program using Vector to store students
information id's,names,Qualification.
package Assignment6;

import java.util.Vector;

public class Program2 {

    public static void main(String[] args) {
Vector<Integer> id = new Vector<Integer>();
Vector<String> name = new Vector<String>();
Vector<String> Q = new Vector<String>();

System.out.println("Students information");
id.add(1);
id.add(2);
id.add(3);
id.add(4);
id.add(5);
name.add("Rahul");
name.add("Ram");
name.add("Raj");
name.add("Raja");
name.add("Ramesh");
Q.add("Graduate");
Q.add("Graduate");
Q.add("Graduate");
Q.add("Graduate");
Q.add("Graduate");
System.out.println("Id : "+id+"\nName :
"+name+"\nQualification : "+Q);
    }

}
```

Output: -

```
Students information
Id : [1, 2, 3, 4, 5]
Name : [Rahul, Ram, Raj, Raja, Ramesh]
Qualification : [Graduate, Graduate, Graduate, Graduate, Graduate]
```

3) Wirte a program using Treeset for storing State names.

Note: Read data from User .

Code: -

//3) Write a program using Treeset for storing State names.

//Note: Read data from User .

package Assignment6;

import java.util.TreeSet;

import java.util.Scanner;

public class Program3 {

      public static void main(String[] args) {

          TreeSet<String> State = new TreeSet<String>(); // TreeSet State which has the generic 'String'

          Scanner S = new Scanner(System.in); // S-> Scanner for taking input from the user

          int size; // size of the array

          System.out.println("Enter the size of array : ");

          size = S.nextInt(); // taking size input of the array

```java
            String[] a = new String[size]; // a-> array, 'a' is string array which takes
the input of states name

            for (int counter = 0; counter < size; counter++) {

                    System.out.println("Enter the Names of States : " + (counter + 1));
// printing statement to enter the names

                                                    // of states

                    a[counter] = S.next(); // array a will take the input

                    State.add(a[counter]); // states name are stored in array 'a' is
now added to TreeSet State

                    System.out.println("Following are some of the States of India : \n"
+ State); // printing the Names of

                                                            // states

                                                            // given
by the user

            }

            S.close();

        }


}
```

Output: -

```
Enter the size of array :
5
Enter the Names of States : 1
Punjab
Following are some of the States of India :
[Punjab]
Enter the Names of States : 2
Haryana
Following are some of the States of India :
[Haryana, Punjab]
Enter the Names of States : 3
Delhi
Following are some of the States of India :
[Delhi, Haryana, Punjab]
Enter the Names of States : 4
Bihar
Following are some of the States of India :
[Bihar, Delhi, Haryana, Punjab]
Enter the Names of States : 5
Mumbai
Following are some of the States of India :
[Bihar, Delhi, Haryana, Mumbai, Punjab]
```